A diverse range of research-oriented and professional programs are offered at both the master’s and doctoral levels. A limited number of graduate diploma programs are also offered.
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Aerospace Studies

Aerospace Studies: Introduction

Faculty Affiliation

Applied Science and Engineering

Degree Programs

Aerospace Science and Engineering

MASc

- Emphases:
  - Aerial Robotics;
  - Robotics (admissions have been administratively suspended);
  - Sustainable Aviation;
  - Sustainable Energy

MEng

- Emphases:
  - Advanced Manufacturing;
  - Aerial Robotics;
  - Engineering and Globalization;
  - Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE);
  - Robotics;
  - Sustainable Aviation;
  - Sustainable Energy

PhD

- Emphases:
  - Aerial Robotics;
  - Robotics (admissions have been administratively suspended);
  - Sustainable Aviation;
  - Sustainable Energy

Collaborative Specializations

The following collaborative specialization is available to students in participating degree programs as listed below:

- Robotics
  - Aerospace Science and Engineering, MASc, PhD

Overview

Aerospace science and engineering is a cross-disciplinary and multidisciplinary field that allows exploration of the broadest and most fascinating fields of engineering, areas that capture the imagination and encourage exploration beyond our terrestrial existence. The University of Toronto Institute for Aerospace Studies (UTIAS) is Canada's leader for education and research in aerospace engineering, focusing on the technical fields needed to design aircraft and spacecraft. Faculty perform research in the following areas:

- Aeronautics: Aircraft design, systems, and control
- Experimental methods: Laser diagnostics, structural/material analysis, field testing of robotics and aircraft
- Flight simulation: Full motion-based flight simulation with virtual reality capability
- Fluid dynamics: Flow of gasses over aircraft and in engines
- Numerical methods: Computer modeling for fluid flows, structures, design, and optimization
- Orbital mechanics: Satellite/spacecraft dynamics and control
- Propulsion systems: Jet and rocket engines, turbomachinery, combustion science
- Robotics and autonomous systems: Ground, air and space-based systems
- Spacecraft design and construction: Design, construction, and launch of satellites
- Structures and materials: Structural design and optimization, material testing.

Much of this research falls into three main themes:

- Reducing the environmental impact of aviation
- Aerial robotics, drones and unmanned aerial vehicles
- Autonomous systems for space exploration.

Contact and Address

Web: [www.utias.utoronto.ca](http://www.utias.utoronto.ca)
Telephone: (416) 667-7700
Fax: (416) 667-7799

University of Toronto Institute for Aerospace Studies
4925 Dufferin Street
Toronto, Ontario M3H 5T6
Canada

Aerospace Studies: Graduate Faculty

Full Members

Barfoot, Tim - BASc, PhD
Chaudhuri, Swetaprovo - BE, PhD
D'Eleuterio, Gabriele - BASc, MASc, PhD
Damaren, Christopher - BASc, MASc, PhD
Davis, James - BASc, MASc, PhD
Ekmekci, Alis - BS, MS, PhD
Emami, Reza - BSc, MSc, PhD
Grant, Peter - BASc, MASc, PhD
Groth, Clinton - BASc, MASc, PhD
Guider, Omer - BSc, MSc, PhD
Kelly, Jonathan - BSc, MS, MSc, PhD
Lavoie, Philippe - BSE, MSc, PhD (Associate Director, Research)
Liu, Hugh - BSc, MASc, PhD
Nair, Prasanth - BTech, MTech, PhD (Associate Director, Graduate Studies)
Schoellig, Angela - DipIng, MSc, PhD, PhD
Steeves, Craig - BA, BASc, PhD
Steinberg, Adam - BASc, MSc, PhD
Waslander, Steven - BSE, MS, PhD
Yano, Masayuki - BS, SM, PhD
Zee, Robert - BASc, MASc, PhD
Zingg, David - BASc, MASc, PhD

Members Emeriti

DeLaurier, James - BS, MS, PhD, FCASI
Aerospace Studies: Aerospace Science and Engineering: MASc

Master of Applied Science

Program Description

The Master of Applied Science (MASc) degree is a research-based program focused on the completion of a research thesis. The MASc is considered to provide basic training in research for students subsequent to an undergraduate program. Under the direction of a faculty supervisor, students will select a research topic, perform experiments, computation, or analysis relevant to the topic, and report their results in a thesis. Upon completion of the thesis, students will be prepared for further academic research or employment in industry, including in research and development settings. Top students may have the opportunity to transfer directly to the PhD program after their first year of MASc studies.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy UTIAS's additional admission requirements stated below.
- An appropriate four-year undergraduate degree in engineering, mathematics, physics, or chemistry from a recognized university.

Program Requirements

- **Coursework** to be completed in Year 1. Students must complete a minimum of 2.5 full-course equivalents (FCEs) (five half courses) as follows:
  - All courses must be technical.
  - At least half of the required FCEs must be courses offered at UTIAS.
  - Complete AER1800H Research Seminar in Aerospace Science and Engineering (0.5 FCE).
  - Students must achieve at least a B– average to be in good academic standing. Failure in any course taken for credit may result in termination of the student's registration.
  - Students deemed to have insufficient background may be required to complete supplementary coursework in addition to the required 2.5 FCEs.
- Complete the non-credit course JDE1000H Ethics in Research (0.0 FCE).
- Attend a total of 12 approved seminars.
- Have research performance assessed by a Research Assessment Committee (RAC), which includes the student's supervisor. For students making excellent research progress, the RAC may recommend that a student be considered for direct transfer to the PhD program.
- Write a thesis based on research performed during the period of registration for the MASc based on a topic selected in consultation with the student's supervisor.
- Present a seminar on the student's research at the UTIAS Departmental MASc Seminar (DMS).
- Students have the option of completing an emphasis in Aerial Robotics; Sustainable Aviation; or Sustainable Energy as part of their degree program. Please see details in the Aerospace Science and Engineering MASc, MEng, PhD Emphases section.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

Aerospace Studies: Aerospace Science and Engineering: MEng

Master of Engineering

Program Description

The Master of Engineering (MEng) is a course-based program designed to lead to employment in the aerospace industry. Students select from the wide range of UTIAS courses, as well as courses offered by other University of Toronto departments, to create a personalized curriculum. Students can also opt to follow one of several emphases, which provide more concentrated teaching in a specific area, and which are recorded on the student's transcript.

The MEng program can be taken on a full-time, extended full-time, or part-time basis. Transfer between the full-time, extended full-time, and part-time options is not permitted after registration. The default registration is the extended full-time option.

Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy UTIAS's additional admission requirements stated below.
- An appropriate bachelor of applied science degree in engineering, or an equivalent four-year degree from a recognized undergraduate engineering program.

Program Requirements

- **Coursework**. Completion of 5.0 full-course equivalents (FCEs) (10 half courses) as follows:
  - A minimum of seven half courses (3.5 FCEs) must be technical.
A minimum of half the courses must be offered at UTIAS.

A maximum of three 500-level courses (1.5 FCEs) is permitted.

Students must achieve at least a B– average to be in good academic standing. Failure in any course taken for credit may result in termination of the student's registration.

Students deemed to have insufficient background may be required to complete supplementary coursework in addition to the required 5.0 FCEs. A maximum of 5.5 FCEs may be taken; permission must be granted by the graduate office to exceed 5.0 FCEs.

Students must complete all the required courses within three sessions (one year).

- Once students are registered, transfer between the full-time, extended full-time, or part-time option is not permitted.
- Students have the option of completing an emphasis in Advanced Manufacturing; Aerial Robotics; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Robotics; Sustainable Aviation; or Sustainable Energy as part of their degree program. Please see details in the Aerospace Science and Engineering MASc, MEng, PhD Emphases section.

Program Length

3 sessions (typical registration sequence: F/W/S)

Time Limit

3 years

Part-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy UTIAS's additional admission requirements stated below.
- An appropriate bachelor of applied science degree in engineering, or an equivalent four-year degree from a recognized undergraduate engineering program.

Program Requirements

- Coursework. Students must complete 5.0 full-course equivalents (FCEs) (10 half courses).
  - A minimum of seven half courses (3.5 FCEs) must be technical.
  - A minimum of half the courses must be offered at UTIAS.
  - A maximum of three 500-level courses (1.5 FCEs) is permitted.
  - A maximum of three half courses (1.5 FCEs) may be taken in any session.
  - A maximum of six half courses (3.0 FCEs) may be taken in any academic year.
  - Students must achieve at least a B– average to be in good academic standing. Failure in any course taken for credit may result in termination of the student's registration.
  - Students deemed to have insufficient background may be required to complete supplementary coursework in addition to the required 5.0 FCEs. A maximum of 5.5 FCEs may be taken; permission must be granted by the graduate office to exceed 5.0 FCEs.
Students must complete all the required courses within nine sessions (three years).

- Once students are registered, transfer between the full-time, extended full-time, or part-time option is not permitted.
- Students have the option of completing an emphasis in Advanced Manufacturing; Aerial Robotics; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Robotics; Sustainable Aviation; or Sustainable Energy as part of their degree program. Please see details in the Aerospace Science and Engineering MASc, MEng, PhD Emphases section.

Program Requirements

- Students must maintain full-time, continuous registration for every session, including the Summer session, until all degree requirements are completed.
  - Students starting with an MASc degree must spend a minimum of two years in the PhD program.
  - Students with an MASc in a discipline relevant to the field of PhD study are expected to complete the PhD program in less than four years.
- Coursework. Students must complete a minimum of 2.0 full-course equivalents (FCEs) (four half courses) in Years 1 and 2.
  - All courses must be technical.
  - At least half of the required FCEs must be courses offered at UTIAS.
  - Students must achieve at least a B– average to be in good academic standing. Failure in any course taken for credit may result in termination of the student's candidacy.
  - Students deemed to have insufficient background may be required to complete supplementary coursework in addition to the required 2.0 FCEs.
- Students must complete the non-credit course JDE1000H Ethics in Research (0.0 FCE) (a half-day workshop).
- Students must attend a total of 24 approved seminars.
- Students undertake a program of research under the guidance of a Doctoral Examination Committee (DEC), which includes the student's supervisor and two other UTIAS professors. The DEC shall:
  - Ascertain the suitability of the student for advanced research
  - Assess the thesis topic
  - Conduct formal reviews of the student's thesis progress at least once per year; unsatisfactory progress may result in the termination of the student's candidacy.
  - Determine whether a student qualifies as a candidate for the PhD degree at the second DEC meeting (qualifying DEC), approximately 1.5 years after program start
  - Provide the first assessment of the PhD thesis.
- Students must complete a thesis based upon research carried out during the period of registration for the PhD degree.
- Students must present the thesis work at a seminar at the UTIAS Departmental Doctoral Seminar (DDS).
- Students must defend the thesis at the Doctoral Final Oral Examination pursuant to the SGS Degree Regulations.
- Students must prepare at least one formal manuscript for publication in a refereed journal or refereed conference proceedings.
- Students have the option of completing an emphasis in Aerial Robotics; Sustainable Aviation; or Sustainable Energy as part of their degree program. Please see details in the Aerospace Science and Engineering MASc, MEng, PhD Emphases section.

Program Length

- 4 years

Time Limit

- 6 years
PhD Program (Transfer)

Transfer Requirements

- Students who have achieved excellent performance in the MASc program at UTIAS at the end of Year 1 are recommended to transfer directly into the PhD program under the same supervisor. Approval for transfer is based on the student’s research ability, research progress during Year 1, and academic standing.

Program Requirements

- Students must maintain **full-time, continuous registration** for every session, including the Summer session, until all degree requirements are completed.
  - Students transferring directly from the MASc program must spend a minimum of three years in the program from the date of initial MASc registration.
  - Students are expected to complete the PhD program in less than five years.
- **Coursework.** Students must complete a total of **3.5 full-course equivalents (FCEs)** as follows:
  - 2.5 FCEs already completed during the MASc program.
  - A minimum of 1.0 FCE (two half courses) in the PhD program.
  - At least half of the required FCEs must be courses offered at UTIAS.
  - Students must achieve at least a B– average to be in good academic standing. Failure in any course taken for credit may result in termination of the student's registration.
  - All required courses must be completed in the first two years of the program, starting from the initial registration in the MASc program.
- Students must complete the non-credit course JDE1000H *Ethics in Research* (0.0 FCE) (a half-day workshop).
- Students must attend a total of **24 approved seminars**.
- Students undertake a program of research under the guidance of a Doctoral Examination Committee (DEC), which includes the student's supervisor and two other UTIAS professors. The DEC shall:
  - Ascertain the suitability of the student for advanced research
  - Assess the thesis topic
  - Conduct formal reviews of the student’s thesis progress at least once per year; unsatisfactory progress may result in the termination of the student's registration
  - Determine whether a student qualifies as a candidate for the PhD degree at the second DEC meeting (qualifying DEC), approximately 1.5 years after program start
  - Provide the first assessment of the PhD thesis.
- Students must present the thesis work at the UTIAS Departmental Doctoral Seminar (DDS).
- Students must defend the thesis at the Doctoral Final Oral Examination pursuant to the SGS Degree Regulations.
- Students must prepare at least **one formal manuscript for publication** in a refereed journal or refereed conference proceedings.
- Students have the option of completing an emphasis in Aerial Robotics; Sustainable Aviation; or Sustainable Energy as part of their degree program. Please see details in the Aerospace Science and Engineering MASc, MEng, PhD Emphases section.

PhD Program (Direct-Entry)

Program Length

5 years

Time Limit

7 years

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy UTIAS's additional admission requirements stated below.
- Applicants must have a four-year undergraduate degree in engineering, mathematics, physics, or chemistry.
- Applicants are expected to have achieved grades averaging the equivalent of a University of Toronto A– or better in their last full year of study.

Program Requirements

- Students must maintain **full-time, continuous registration** for every session, including the Summer session, until all degree requirements are completed.
  - Students must spend a minimum of three years in the direct-entry PhD program.
  - Students are expected to complete the direct-entry PhD program in less than five years.
- **Coursework.** Students must complete a total of **3.5 full-course equivalents (FCEs)** as follows:
  - At least half of the required FCEs must be courses offered at UTIAS.
  - Students must achieve at least a B– average to be in good academic standing. Failure in any course taken for credit may result in termination of the student's candidacy.
  - All required courses must be completed in the first two years of the program.
  - All courses must be technical.
- Students must complete the non-credit course JDE1000H *Ethics in Research* (0.0 FCE) (a half-day workshop).
- Students must attend a total of **24 approved seminars**.
- Students must undertake a program of research under the guidance of a Doctoral Examination Committee (DEC), which includes the student's supervisor and two other UTIAS professors. The DEC shall:
  - Ascertain the suitability of the student for advanced research
  - Assess the thesis topic
  - Conduct formal reviews of the student’s thesis progress at least once per year; unsatisfactory progress may result in the termination of the student's registration
  - Determine whether a student qualifies as a candidate for the PhD degree at the second DEC meeting (qualifying DEC), approximately 1.5 years after program start
  - Provide the first assessment of the PhD thesis.
- Students must present the thesis work at a seminar at the UTIAS Departmental Doctoral Seminar (DDS).
• Students must defend the thesis at the **Doctoral Final Oral Examination** pursuant to the SGS Degree Regulations.
• Students must prepare at least one **formal manuscript for publication** in a refereed journal or refereed conference proceedings.
• Students have the option of completing an emphasis in Aerial Robotics; Sustainable Aviation; or Sustainable Energy as part of their degree program. Please see details in the Aerospace Science and Engineering MASc, MEng, PhD Emphases section.

**Program Length**

5 years

**Time Limit**

7 years

**PhD Program (Flexible-Time)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy UTIAS's additional admission requirements stated below.
- An MASc degree in engineering, mathematics, physics, or chemistry and demonstrated ability to perform advanced research.

**Program Requirements**

- Students must maintain full-time, continuous registration for the first four years of study. Part-time registration is expected for the remaining period of study within the normal length.
  - Students starting with an MASc degree must spend a minimum of two years in the PhD program.
  - Students with an MASc in a discipline relevant to the field of PhD study are expected to complete the PhD program in less than six years.
- **Coursework.** Students must complete a minimum of **2.0 full-course equivalents (FCEs)** (four half courses) in Years 1 and 2 as follows:
  - All courses must be technical.
  - At least half of the required FCEs must be courses offered at UTIAS.
  - Students must achieve at least a B– average to be in good academic standing. Failure in any course taken for credit may result in termination of the student's candidacy.
  - Students deemed to have insufficient background may be required to complete supplementary coursework in addition to the required 2.0 FCEs.
- Students must complete the non-credit course JDE1000H **Ethics in Research** (0.0 FCE) (a half-day workshop).
- Students must attend a total of **24 approved seminars.**
- Students undertake a program of research under the guidance of a Doctoral Examination Committee (DEC), which includes the student's supervisor and two other UTIAS professors. The DEC shall:
  - Ascertain the suitability of the student for advanced research
  - Assess the thesis topic
  - Conduct formal reviews of the student's thesis progress at least once per year; unsatisfactory progress may result in the termination of the student's registration
  - Determine whether a student qualifies as a candidate for the PhD degree at the second DEC meeting (qualifying DEC), approximately 24 months after program start
  - Provide the first assessment of the PhD thesis.
- Students must complete a **thesis** based upon research carried out during the period of registration for the PhD degree.
- Students must present the thesis work at a seminar at the UTIAS **Departmental Doctoral Seminar** (DDS).
- Students must defend the thesis at the **Doctoral Final Oral Examination** pursuant to the SGS Degree Regulations.
- Students must prepare at least one **formal manuscript for publication** in a refereed journal or refereed conference proceedings.
- Students have the option of completing an emphasis in Aerial Robotics; Sustainable Aviation; or Sustainable Energy as part of their degree program. Please see details in the Aerospace Science and Engineering MASc, MEng, PhD Emphases section.

**Program Length**

6 years

**Time Limit**

8 years

**Aerospace Studies: Aerospace Science and Engineering: MASc, MEng, PhD Emphases**

**Emphasis: Advanced Manufacturing (MEng only)**

MEng students must successfully complete:

- Four half courses (2.0 full-course equivalents [FCEs]), including at least one core course.
- Elective courses may include other core courses, and courses from either of two streams: Manufacturing Engineering and Manufacturing Management.

**Core Courses**

AER501H1 *Computational Structural Mechanics and Design Optimization*

AER1403H *Advanced Aerospace Structures*

APS1028H *Operations and Production Management for Manufacturing and Services*

CHE1123H *Liquid Biofuels*

MIE519H1 *Advanced Manufacturing Technologies*

MIE1740H *Smart Materials and Structures.*
Elective Courses — Manufacturing Engineering


Elective Courses — Manufacturing Management


Emphasis: Aerial Robotics (MASc, MEng, PhD)

MASc and PhD students must successfully complete:

- **1.0 full-course equivalent [FCE]**: AER1216H Foundations of Unmanned Aerial Vehicles and AER1217H Development of Autonomous Unmanned Aerial Systems;
- **one other course** from the approved course list, which will be updated on a regular basis, or other related courses approved by professors; and
- one MASc or PhD thesis relevant to unmanned aerial vehicles.

MEng students must successfully complete:

- **1.0 full-course equivalent [FCE]**: AER1216H Foundations of Unmanned Aerial Vehicles and AER1217H Development of Autonomous Unmanned Aerial Systems;
- **one other course** from the approved list or other related courses approved by professors; and
- one MEng project course related to unmanned aerial vehicles.

Elective Courses

AER501H1, AER503H1, AER506H1, AER510H1, AER521H1, AER525H1, AER1202H, AER1211H, AER1214H, AER1215H, AER1303H, AER1308H, AER1316H, AER1324H, AER1403H, AER1410H, AER1415H, AER1503H, AER1513H, AER1514H, CSC411H1, CSC2503H, CSC2545H, ECE537H1, ECE1512H, ECE1505H, ECE1747H, ECE1762H, MIE506H1, MIE1740H, MIE1809H, ROB521H1, ROB1514H.

Emphasis: Engineering and Globalization (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) from the following lists, with at least two half courses (or one full course) taken from Group A.

**Group A**

APS510H1, APS530H1, APS1420H, JCR1000Y (full-year course).

**Group B**

APS1015H, APS1020H, APS1024H, CHL5700H, CIV1399H.

Note: Students who choose to pursue an MEng project in their home department that aligns with the Centre for Global Engineering (CGEN)'s disciplinary focus, as deemed by the CGEN Director, may count the project as one required Group B course.

Students who complete the requirements of the emphasis in Engineering and Globalization and wish to obtain a notation on their transcript should contact the Faculty Graduate Studies office.

Emphasis: Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) (MEng only)

MEng students must successfully complete any four of the following courses (2.0 full-course equivalents [FCEs]):

**Leadership**


**Entrepreneurship and Innovation**

APS511H1, APS1012H, APS1013H, APS1015H, APS1023H, APS1033H, APS1035H, APS1036H, APS1041H, APS1061H, APS1088H.

**Finance and Management**


**Engineering and Society**

APS510H1, APS1018H, APS1024H, APS1025H, APS1031H, APS1034H, APS1101H, APS1420H.

Emphasis: Robotics (MEng only)

Students must successfully complete four courses (2.0 full-course equivalents [FCEs]) chosen from at least two of the following groups, and no more than two in any given group:
Group 1: Planning and Control
AER1516H, AER1517H, ECE557H (exclusion: ECE410H1), ECE1635H, ECE1636H, ECE1647H, ECE1653H, ECE1657H, MIE1064H.

Group 2: Perception and Learning

Group 3: Modelling and Dynamics
AER506H1, AER1503H, AER1512H, JEB1444H, MIE1001H.

Group 4: Systems Design and Integration
AER525H1 (exclusion: ECE470H1), AER1216H, AER1217H, CSC2621H, ECE470H1 (exclusion: AER525H1), MIE505H1, MIE506H1, MIE1070H, MIE1075H, MIE1076H, MIE1080H, MIE1809H, ROB521H1, ROB1514H.

**Emphasis: Sustainable Aviation (MASc, MEng, PhD)**
MASc and PhD students must successfully complete:
- At least **two half courses** (1.0 full-course equivalent [FCE]) from: AER1303H, AER1304H, AER1306H, AER1308H, AER1310H, AER1316H, AER1318H, AER1319H, AER1403H, AER1418H, AER501H1, AER510H1, CIV1307H, PHY1498H, PHY2504H, PHY2505H, CHE1123H, JCC1313H.
- AER1315H (0.5 FCE).
- A thesis in an area of relevance to sustainable aviation with approval of the Scientific Committee.

MEng students must successfully complete:

**Emphasis: Sustainable Energy (MASc, MEng, PhD)**
MASc and PhD students must successfully complete:
- At least **three half courses** (1.5 full-course equivalents [FCEs]) from either of the following lists below.

MEng students must successfully complete:
- **Four half courses (2.0 FCEs)** from either of the following lists below, including at least one core course (0.5 FCE).

**Core Courses**
APS1032H *Introduction to Energy Project Management*
MIE515H1 *Alternative Energy Systems*
MIE1120H *Current Energy Infrastructure and Resources*.

**Elective Courses**

**Contact**
All students are asked to register with Climate Positive Energy (CPE) at emphasis@cpe.utoronto.ca, at the beginning of their studies, to receive information about energy-related activities and opportunities on campus. CPE also administers a number of awards and scholarships for which students may be eligible.

**Aerospace Studies: Aerospace Science and Engineering: MASc, MEng, PhD Courses**
This list represents course offerings at the time of publication. Course descriptions are available on the UTIAS website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AER503H1</td>
<td>Aeroelasticity</td>
</tr>
<tr>
<td>AER1202H</td>
<td>Advanced Flight Dynamics</td>
</tr>
<tr>
<td>AER1211H</td>
<td>Human Control of Flight Systems</td>
</tr>
<tr>
<td>AER1216H</td>
<td>Fundamentals of Unmanned Aerial Vehicles</td>
</tr>
<tr>
<td>AER1217H</td>
<td>Development of Autonomous Unmanned Aerial Systems (Prerequisite: AER1216H.)</td>
</tr>
</tbody>
</table>
### Aerodynamics, Fluid Dynamics, and Propulsion

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>AER510H1</td>
<td>Aerospace Propulsion</td>
</tr>
<tr>
<td>AER1301H</td>
<td>Kinetic Theory of Gases</td>
</tr>
<tr>
<td>AER1303H</td>
<td>Advanced Fluid Mechanics</td>
</tr>
<tr>
<td>AER1304H</td>
<td>Fundamentals of Combustion</td>
</tr>
<tr>
<td>AER1306H</td>
<td>Special Topics in Reacting Flows</td>
</tr>
<tr>
<td>AER1307H</td>
<td>Fundamentals of Aeroacoustics</td>
</tr>
<tr>
<td>AER1308H</td>
<td>Introduction to Modern Flow Control</td>
</tr>
<tr>
<td>AER1310H</td>
<td>Turbulence Modelling</td>
</tr>
<tr>
<td>AER1311H</td>
<td>Unsteady Gasdynamics</td>
</tr>
<tr>
<td>AER1316H</td>
<td>Fundamentals of Computational Fluid Dynamics</td>
</tr>
<tr>
<td>AER1318H</td>
<td>Topics in Computational Fluid Dynamics</td>
</tr>
<tr>
<td>AER1319H</td>
<td>Finite Volume Methods for Computational Fluid Dynamics</td>
</tr>
<tr>
<td>AER1324H</td>
<td>Introduction to Turbulence (Exclusion: MIE1207H.)</td>
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### Structures and Multidisciplinary Optimization

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>AER501H1</td>
<td>Computational Structural Mechanics and Design Optimization</td>
</tr>
<tr>
<td>AER1403H</td>
<td>Advanced Aerospace Structures</td>
</tr>
<tr>
<td>AER1410H</td>
<td>Topology Optimization</td>
</tr>
<tr>
<td>AER1415H</td>
<td>Computational Optimization</td>
</tr>
<tr>
<td>AER1416H</td>
<td>Numerical Methods for Uncertainty Quantification</td>
</tr>
<tr>
<td>AER1418H</td>
<td>Variational Methods for Partial Differential Equations</td>
</tr>
</tbody>
</table>

### Sustainable Aviation

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AER1315H</td>
<td>Sustainable Aviation</td>
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### Robotics and Space Systems Engineering

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AER506H1</td>
<td>Spacecraft Dynamics and Control</td>
</tr>
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</table>

### Management and Policy

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AER521H1</td>
<td>Mobile Robotics and Perception</td>
</tr>
<tr>
<td>AER525H1</td>
<td>Robotics</td>
</tr>
<tr>
<td>AER1503H</td>
<td>Spacecraft Dynamics and Control II</td>
</tr>
<tr>
<td>AER1512H</td>
<td>Multibody Dynamics</td>
</tr>
<tr>
<td>AER1513H</td>
<td>State Estimation for Aerospace Vehicles</td>
</tr>
<tr>
<td>AER1515H</td>
<td>Perception for Robotics (Exclusions: AER1514H, ROB1514H.)</td>
</tr>
<tr>
<td>AER1516H</td>
<td>Robot Motion Planning</td>
</tr>
<tr>
<td>AER1517H</td>
<td>Control for Robotics</td>
</tr>
<tr>
<td>AER1520H</td>
<td>Microsatellite Design I</td>
</tr>
<tr>
<td>AER1521H</td>
<td>Microsatellite Design II</td>
</tr>
<tr>
<td>ROB1514H</td>
<td>Mobile Robotics</td>
</tr>
</tbody>
</table>

### Engineering Physics

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AER507H1</td>
<td>Introduction to Fusion Energy</td>
</tr>
<tr>
<td>AER1717H</td>
<td>Applied Plasma Physics I (Reading course.)</td>
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### Research Seminars and Professional Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AER1800H</td>
<td>Research Seminar in Aerospace Science and Engineering (For Year 1 MASc students only.)</td>
</tr>
<tr>
<td>AER1810H</td>
<td>MEng Project (For MEng students only.)</td>
</tr>
<tr>
<td>JDE1000H</td>
<td>Ethics in Research (Students registered in the MASc or PhD programs are required to participate in this non-credit seminar course during their first or second session of registration. This course must be completed in order to graduate.)</td>
</tr>
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</table>
## Reading Courses

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AER1820H</td>
<td>Directed Reading in Aerospace Studies</td>
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</table>

## APS Engineering Course

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>APS1012H</td>
<td>Managing Business Innovation and Transformational Change</td>
</tr>
<tr>
<td>APS1043H</td>
<td>Writing Your Own Patent Application</td>
</tr>
</tbody>
</table>
Anthropology

Anthropology: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Anthropology

MA and PhD

- Fields:
  - Archaeology;
  - Evolutionary Anthropology;
  - Linguistic and Semiotic Anthropology;
  - Medical Anthropology;
  - Sociocultural Anthropology

MSc

- Fields:
  - Archaeology;
  - Evolutionary Anthropology;
  - Medical Anthropology

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Aging, Palliative and Supportive Care Across the Life Course
  - Anthropology, MA, MSc, PhD
- Contemporary East and Southeast Asian Studies
  - Anthropology, MA
- Development Policy and Power
  - Anthropology, MA, MSc
- Diaspora and Transnational Studies
  - Anthropology, MA, MSc, PhD
- Environmental Studies
  - Anthropology, MA, MSc, PhD
- Ethnic, Immigration and Pluralism Studies
  - Anthropology, MA, PhD
- Food Studies
  - Anthropology, MA, PhD
- Global Health (U of T Global Scholar)
  - Anthropology, PhD
- Jewish Studies
  - Anthropology, MA, PhD
- Mediterranean Archaeology
  - Anthropology, PhD
- Sexual Diversity Studies
  - Anthropology, MA, MSc, PhD
- South Asian Studies
  - Anthropology, MA, MSc, PhD
- Women and Gender Studies
  - Anthropology, MA, MSc, PhD
- Women's Health
  - Anthropology, MA, MSc, PhD

Overview

Anthropology is concerned with the unity, diversity, and evolution of humanity (and non-human primates) and of human culture and society from a comparative and global perspective. The Department of Anthropology was established in 1936 and has included many of the most prominent figures in Canadian anthropology. The first MA degree was awarded in 1949; the first PhD in 1956.

Members of the department conduct research on present and past human societies, cultural knowledge and practice, evolutionary antecedents, and closely related species. Graduate training is offered in socio-cultural, medical, evolutionary/biological, linguistic, and archaeological branches of the field. Anthropology students at the University of Toronto can study human biology and evolution; human behaviour from its first appearance in the archaeological record to the first appearance of writing; language and society; anthropology of health; and the diversity of human culture in today’s world. Since Anthropology concerns the diversity and commonality of humans over time and around the globe, faculty and graduate research is broadly international and varies in method and theoretical frame. Nonetheless, it coheres in the quest to understand past and present human experience in social, cultural, and evolutionary contexts.

Contact and Address

Web: www.anthropology.utoronto.ca
Email: anthropology.graduate@utoronto.ca
Telephone: (416) 978-5416
Fax: (416) 978-3217

Department of Anthropology
University of Toronto
Room 256, 19 Ursula Franklin Street
Toronto, Ontario M5S 2S2
Canada

Anthropology: Graduate Faculty

Full Members

Allen, Andrea - PhD
Bamford, Sandra - BA, MA, MPA, PhD
Banning, Edward - BA, MA, PhD
Barker, Joshua - BA, MA, PhD
Begun, David - BA, MA, PhD
Bozcali, Firat - BA, MA, MA, PhD
Butt, Waqas - BA, PhD
Cameron, Michelle E. - BSc, MSc, PhD
Chazan, Michael - BA, MA, PhD
Cody, Francis - PhD
Coleman, Simon - BA, PhD
Crawford, Gary - BSc, MA, PhD
Cunningham, Hilary - BA, MA, PhD
Danesi, Marcel - BA, MA, PhD
Daswani, Girish - BSc, BSc, MS, PhD
Dave, Naisargi N. - BA, MA, PhD
De Aguir Furuie, Vinicius - BA, MA, PhD
Dewar, Genevieve - BS, MA, PhD
Elamin, Nisrin Omer - MA, MA, PhD
Friesen, Max - BA, MA, PhD (Graduate Chair)
Galloway, Tracey - BScN, MA, PhD
Members Emeriti

Boddy, Janice - BA, MA, PhD
Burton, Frances - BSc, MA, PhD
Chev, John - BA, MA, PhD
Drewitt, Robert - BA, PhD
Kleindienst, Maxine - BA, MA, PhD
Latta, Martha - BA, MA, DPhil
Lee, Richard - BA, MA, PhD
Levin, Michael - BA, MA, PhD
Mavalwala, Jamshed D - MS, PhD
Philpott, Stuart - BA, MA, PhD
Ray, Ajit - BSc, MSc, PhD
Samarin, William - BA, PhD
Vanderburgh, Rosamond - BA, MA

Associate Members

Carter, Tristan - PhD
Cipolla, Craig - BA, MA, PhD
Cummings, Maggie Irene - BA, MA, PhD
Gilbert, Andrew - PhD
Jia, Zhiheng - MD
Kalocsai, Csilla - MPH, PhD
Meneley, Anne - PhD
Mortensen, Lena - BA, MA, PhD
Patton, Katherine - BA, MA, PhD
Romain, Sandra Jane - PhD
Sapirstein, Philip - PhD, PhD, PhD
Shattuck, Eric - PhD
Shugar, Aaron - BA, MS, PhD
Young, Donna Jean - BA, MA, PhD

Anthropology: Anthropology MA

Master of Arts

Program Description

The department offers a Master of Arts degree program, both full-time and part-time. The full-time option normally extends over a 12-month period lasting from September to September.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Anthropology’s additional admission requirements stated below.
- B+ average or equivalent.
- Applicants must satisfy the department that they have the appropriate background to enter a particular program of graduate study.
- Two letters of reference.
- A brief statement of interest (not exceeding 1,000 words).

Program Requirements

- Coursework. Students must complete 3.5 full-course equivalents (FCEs) including:
  - 0.5 FCE: ANT3047H or ANT4010H or ANT6100H
  - 1.0 FCE: ANT2000Y
  - 2.0 FCEs, of which at least 1.0 FCE must be in Anthropology
- Exceptions to coursework requirements must be approved by the advisor and Graduate Coordinator.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time
Anthropology: Anthropology MSc

Master of Science

Program Description

The MSc program is most appropriate for students who are considering careers in consulting archaeology, some aspects of medical or forensic anthropology, NGO work, or application to PhD programs in Anthropology at other Canadian universities. The full-time, two-year program is normally completed by the Summer of Year 2. The MSc program can be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Anthropology’s additional admission requirements stated below.
- B+ average or equivalent.
- Applicants must satisfy the department that they have the appropriate background to enter a particular program of graduate study.
- Two letters of reference.
- A brief statement of interest (not exceeding 1,000 words).

Program Requirements

- Coursework. Students must complete 4.5 full-course equivalents (FCEs) including:
  - 0.5 FCE: ANT3047H or ANT4010H or ANT6100H
  - 1.0 FCE: ANT2500Y
  - 3.0 FCEs, of which 1.5 FCEs will normally be science courses in archaeology, evolutionary anthropology, medical anthropology, or related disciplines depending on the student’s program
- Exceptions to coursework requirements must be approved by the advisor and Graduate Coordinator.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
9 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Anthropology: Anthropology PhD

Doctor of Philosophy

Program Description

The Doctor of Philosophy is primarily a research degree. A program of study is designed for each student to ensure competence in a field of research, culminating in the writing of a thesis.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master’s degree or 2) direct entry after completing a bachelor’s degree.

Depending on subfield or area of research, completion of the PhD may take longer than the indicated program length below. See the departmental handbook for details.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Anthropology’s additional admission requirements stated below.
- Admission is offered primarily to excellent students who, by the time of enrolment, have completed a master’s degree in anthropology (or a cognate subject).
- All applicants are expected to have achieved grades averaging the equivalent of a University of Toronto A– or better in their last full year of study. Most successful applicants will have finished or be in the process of completing an MA or MSc.
- Applicants must satisfy the department that they have the appropriate background to enter a particular program of graduate study.
- Two letters of reference.
- A brief statement of interest (not exceeding 1,000 words).
- Applicants are required to identify departmental members with whom they want to conduct PhD research. The department regrets that it cannot admit students to the PhD program, regardless of their qualifications, unless a supervisor is available.
- Undergraduate students with strong backgrounds in anthropology or relevant disciplines (grade point average of 3.70 or above in their last 5.0 full-course equivalents [FCEs]) and who have earned an appropriate bachelor’s degree with a concentration in anthropology or a cognate discipline may apply directly for admission to the PhD program.

Program Requirements

- At the beginning of the academic year, each student will submit, with the SGS enrolment form, a program statement describing his or her plan to meet program requirements.
- A minimum of 3.0 full-course equivalents (FCEs), of which at least 1.5 FCEs are normally in anthropology.
- Attain at least an A– average in coursework to continue in the PhD program in good standing.
- Submit research proposal by the end of the second session of Year 2 (for example, May 1 for students who start in September).
- Before proceeding to full-time research (achieving candidacy), students must:
  - Be resident on campus for one year.
  - Complete the minimum of 3.0 FCEs (noted above), of which at least 1.5 FCEs are normally in anthropology.
Gain experience in research methods and design; requirement can be filled by completing coursework in methodology or, with the department's assent, undertaking faculty-supervised fieldwork or laboratory research. Each student will normally be involved in fieldwork, in the broad meaning of the term, and in theoretical analysis.

- Present and defend a thesis proposal.
- Demonstrate an adequate knowledge of at least one language other than English, unless their program of study requires the intensive and time-consuming mastery of another research tool; demonstration of adequate language or equivalent knowledge can be accomplished in a variety of ways, a list of which is available in the Department of Anthropology's Graduate Student Handbook.
- An approved Ethics Protocol for all students working with living organisms and modern human remains.

Program Requirements

- At the beginning of the academic year, each student will submit, with the SGS enrolment form, a program statement describing his or her plan to meet program requirements.
- Students must complete 5.0 graduate full-course equivalents (FCEs) as follows:
  - 3.0 FCEs, normally taken in Year 1
  - 2.0 FCEs taken in Year 2, when work on the research proposal is also expected to begin.
- Attain an annual average of at least A– to continue in the PhD program in good standing.
- Submit research proposal by the end of the second session of Year 3 (for example, May 1 for students who start in September).
- Before proceeding to full-time research (achieving candidacy), students must:
  - Be resident on campus for one year.
  - Complete the minimum 5.0 FCEs (noted above), of which at least 2.5 FCEs are normally in anthropology.
  - Gain experience in research methods and design; requirement can be filled by completing coursework in methodology or, with the department's assent, undertaking faculty-supervised fieldwork or laboratory research. Each student will normally be involved in fieldwork, in the broad meaning of the term, and in theoretical analysis.
  - Present and defend a thesis proposal.
  - Demonstrate an adequate knowledge of at least one language other than English, unless their program of study requires the intensive and time-consuming mastery of another research tool; demonstration of adequate language or equivalent knowledge can be accomplished in a variety of ways, a list of which is available in the Department of Anthropology's Graduate Student Handbook.
  - An approved Ethics Protocol for all students working with living organisms and modern human remains.

Program Length

4 years

Although the program has been designed for completion in four years, some students may require a longer period to complete all of the requirements.

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Anthropology’s additional admission requirements stated below.
- Undergraduate students with strong backgrounds in anthropology or relevant disciplines (grade point average of 3.70 or above in their last 5.0 full-course equivalents [FCEs]) and who have earned an appropriate bachelor’s degree with a concentration in anthropology or a cognate discipline may apply directly for admission to the PhD program.
- All applicants are expected to have achieved grades averaging the equivalent of a University of Toronto A– or better in their last full year of study.
- Applicants must satisfy the department that they have the appropriate background to enter a particular program of graduate study.
- Two letters of reference.
- A brief statement of interest (not exceeding 1,000 words).
- Applicants are required to identify departmental members with whom they want to conduct PhD research. The department regrets that it cannot admit students to the PhD program, regardless of their qualifications, unless a supervisor is available.

Program Length

5 years

Although the program has been designed for completion in five years, some students may require a longer period to complete all of the requirements.

Time Limit

7 years

Anthropology: Anthropology MA, MSc, PhD Courses

Not all courses are offered every year. Check with the department for the current year's offerings.
### General

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANT1096H</td>
<td>Quantitative Methods I</td>
</tr>
<tr>
<td>ANT1099H</td>
<td>Quantitative Methods II</td>
</tr>
<tr>
<td>ANT1155H*</td>
<td>Reading or Research Seminar</td>
</tr>
<tr>
<td>ANT1155Y*</td>
<td>Reading or Research Seminar</td>
</tr>
<tr>
<td>ANT1156H*</td>
<td>Reading or Research Seminar</td>
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<td>ANT1156Y*</td>
<td>Reading or Research Seminar</td>
</tr>
<tr>
<td>ANT1157H*</td>
<td>Reading or Research Seminar</td>
</tr>
<tr>
<td>ANT1157Y*</td>
<td>Reading or Research Seminar</td>
</tr>
<tr>
<td>ANT1158H*</td>
<td>Reading or Research Seminar</td>
</tr>
<tr>
<td>ANT1158Y</td>
<td>Reading or Research Seminar</td>
</tr>
<tr>
<td>ANT2000Y*</td>
<td>MA Research Paper</td>
</tr>
<tr>
<td>ANT2500Y</td>
<td>MSc Research Paper</td>
</tr>
<tr>
<td>EIP3000H</td>
<td>Coordinating Seminar: Ethnic, Immigration and Pluralism Studies (for students in the Ethnic, Immigration and Pluralism Studies collaborative specialization)</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

### Archaeology

<table>
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<td>JPA1040Y</td>
<td>Advanced Physics and Archaeology</td>
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<tr>
<td>ANT4010H</td>
<td>Archaeology in Contemporary Society</td>
</tr>
<tr>
<td>ANT4020H</td>
<td>Archaeology Theory</td>
</tr>
<tr>
<td>ANT4025H</td>
<td>Archaeology of Eastern North America</td>
</tr>
<tr>
<td>ANT4026H</td>
<td>Arctic Archaeology</td>
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<tr>
<td>ANT4030H</td>
<td>Artifacts</td>
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<tr>
<td>ANT4031H</td>
<td>Value</td>
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<tr>
<td>ANT4038H</td>
<td>Archaeology of Urban Development</td>
</tr>
<tr>
<td>ANT4039H</td>
<td>Origin and Nature of Food Producing Societies</td>
</tr>
<tr>
<td>ANT4040H</td>
<td>Archaeology of Hunter-Gatherers</td>
</tr>
<tr>
<td>ANT4041H</td>
<td>Landscape Archaeology</td>
</tr>
<tr>
<td>ANT4042H</td>
<td>Archaeology of Complex Hunter-Gatherers</td>
</tr>
<tr>
<td>ANT4043H</td>
<td>Archaeology of Ritual, Religion, and Ideology</td>
</tr>
<tr>
<td>ANT4044H</td>
<td>Interregional Interaction in the Ancient World</td>
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### Evolutionary Anthropology

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<th>Course Title</th>
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<tbody>
<tr>
<td>ANT3005H</td>
<td>Advanced Topics in Paleoanthropology</td>
</tr>
<tr>
<td>ANT3010H</td>
<td>Human Osteology: Theory and Practice</td>
</tr>
<tr>
<td>ANT3011H</td>
<td>Palaeopathology</td>
</tr>
<tr>
<td>ANT3031H</td>
<td>Advanced Research Seminar I</td>
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<tr>
<td>ANT3034H*</td>
<td>Advanced Research Seminar IV</td>
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<tr>
<td>ANT3041H</td>
<td>Evolutionary Perspectives on Growth and Development</td>
</tr>
<tr>
<td>ANT3042H</td>
<td>Advanced Topics in Primate Ecology</td>
</tr>
<tr>
<td>ANT3045H</td>
<td>Advanced Topics in Non-Human Primate Evolution</td>
</tr>
<tr>
<td>ANT3046H</td>
<td>Paleocology in Primate and Human Evolution</td>
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<tr>
<td>ANT3047H</td>
<td>Evolutionary Anthropology Theory</td>
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<tr>
<td>ANT3048H</td>
<td>Primatological Theory and Methods</td>
</tr>
<tr>
<td>ANT3049H</td>
<td>Advanced Seminar in Evolutionary Morphology (prerequisite: ANT3047H)</td>
</tr>
<tr>
<td>ANT3050H</td>
<td>Species Concepts and Human Evolution</td>
</tr>
<tr>
<td>ANT3438H</td>
<td>Skeletal Trauma and Violence: Theory and Practice</td>
</tr>
<tr>
<td>ANT3439H</td>
<td>Advanced Seminar in Forensic Anthropology</td>
</tr>
<tr>
<td>ANT3440H</td>
<td>Molecular Anthropology: Theory and Practice</td>
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* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

**Linguistic and Semiotic Anthropology**

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<tbody>
<tr>
<td>ANT5144H</td>
<td>Foundations in Linguistic Anthropology</td>
</tr>
<tr>
<td>ANT5148H</td>
<td>Language, Ideology, and Political Economy</td>
</tr>
<tr>
<td>ANT5150H</td>
<td>Nation, State, and Language in Francophone Canada</td>
</tr>
<tr>
<td>ANT5151H</td>
<td>Metaphor, Language, and Science</td>
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<tr>
<td>JSA5147H</td>
<td>Language, Nationalism, and Post-Nationalism</td>
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<td>ANT5148H</td>
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**Medical Anthropology**

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<tr>
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<td>Medical Anthropology I</td>
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<tr>
<td>ANT7002H</td>
<td>Medical Anthropology II</td>
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<tr>
<td>ANT7003H</td>
<td>Global Health: Anthropological Perspectives</td>
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**Sociocultural Anthropology**

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<tr>
<td>ANT6003H</td>
<td>Critical Issues in Ethnography I</td>
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<tr>
<td>ANT6005H</td>
<td>Ethnographic Methods Proseminar (Credit/No Credit)</td>
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<tr>
<td>ANT6006H</td>
<td>Genealogies of Anthropological Thought</td>
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<tr>
<td>ANT6014H</td>
<td>Media and Mediation</td>
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<tr>
<td>ANT6017H</td>
<td>Post-colonial Science Studies and the Cultural Politics of Knowledge Translation</td>
</tr>
<tr>
<td>ANT6018H</td>
<td>Approaches to Nature and Culture</td>
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<tr>
<td>ANT6019H</td>
<td>Anthropology of Neoliberalism</td>
</tr>
<tr>
<td>ANT6027H</td>
<td>Anthropology of Violence</td>
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<tr>
<td>ANT6029H</td>
<td>Anthropology of Capitalism</td>
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<td>ANT6031H</td>
<td>Advanced Research Seminar I</td>
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**Joint Courses**

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<tr>
<td>JAL1145H</td>
<td>Field Methods</td>
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<tr>
<td>JAR1001H</td>
<td>Anthropology of Religion Gateway Seminar</td>
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<td>Advanced Research Seminar IV</td>
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<td>ANT6035H</td>
<td>Advanced Research Seminar</td>
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<tr>
<td>ANT6036H</td>
<td>Advanced Research Seminar</td>
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<td>ANT6037H</td>
<td>Advanced Research Seminar VII</td>
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<td>ANT6037Y</td>
<td>Advanced Research Seminar VII</td>
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<tr>
<td>ANT6038H</td>
<td>Advanced Research Seminar VIII</td>
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<tr>
<td>ANT6040H</td>
<td>Research Design and Fieldwork Methods</td>
</tr>
<tr>
<td>ANT6055H</td>
<td>Anthropology of Subjectivity and Personhood</td>
</tr>
<tr>
<td>ANT6056H</td>
<td>Decolonizing Diversity Discourse: Critical and Comparative Accounts of Multiculturalism and Settler Colonialism</td>
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<tr>
<td>ANT6059H</td>
<td>Anthropology and History</td>
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<td>ANT6060H</td>
<td>Anthropology and Indigenous Studies in North America</td>
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<td>ANT6061H</td>
<td>Anthropology of Sexuality and Gender</td>
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<td>ANT6062H</td>
<td>Disability Anthropology</td>
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<td>ANT6063H</td>
<td>Anthropology of Infrastructures</td>
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<td>ANT6064H</td>
<td>Evidence and Uncertainty: The Politics of Law and Science</td>
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<td>ANT6065H</td>
<td>Anthropology in/of Troubled Times</td>
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<td>ANT6066H</td>
<td>More-than-Human Ethnography</td>
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<tr>
<td>ANT6100H</td>
<td>History of Human Anthropography</td>
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<tr>
<td>ANT6150H</td>
<td>Proposing Anthropological Thought</td>
</tr>
<tr>
<td>ANT6200H</td>
<td>Ethnographic Practicum</td>
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Applied Psychology and Human Development

APHD: Introduction

Faculty Affiliation

Ontario Institute for Studies in Education (OISE)

Degree Programs

Child Study and Education

MA

- Field:
  - Practice-Based Inquiry in Psychology and Educational Practice

EdD

- Emphases:
  - Early Learning and Early Years;
  - Mental Health and Wellbeing;
  - Special Education

Counselling and Clinical Psychology

MA

- Fields:
  - Clinical and Counselling Psychology — offered by the Department of Applied Psychology and Human Development, OISE, St. George campus;
  - Clinical Psychology — offered by the Graduate Department of Psychological Clinical Science, University of Toronto Scarborough (UTSC)

PhD

- Fields:
  - Clinical and Counselling Psychology — offered by the Department of Applied Psychology and Human Development, OISE, St. George campus;
  - Clinical Psychology — offered by the Graduate Department of Psychological Clinical Science, University of Toronto Scarborough (UTSC)

Counselling Psychology

MEd

- Fields:
  - Counselling and Psychotherapy;
  - Global Mental Health and Counselling Psychology
    - Dual degree program: MEd (University of Toronto) / MAP (Zhejiang University) (admissions have been administratively suspended for the 2024-25 admissions cycle);
    - Dual degree program: MEd (University of Toronto) / MMed (China Medical University);
    - Dual degree program: MEd (University of Toronto) / MSc (China Medical University)
  - Guidance and Counselling

EdD

- Fields:
  - Counselling and Psychotherapy
  - School Psychology

Developmental Psychology and Education

MA, MEd, and PhD

- Emphases:
  - Early Learning (PhD, flexible-time only)
  - Program Evaluation (MEd only)

School and Clinical Child Psychology

MA and PhD

Combined Degree Programs

- STG, Education and Society (Minor), Honours BA / Child Study and Education, MA
- STG, Education and Society (Minor), Honours BSc / Child Study and Education, MA
- UTM, Exceptionality in Human Learning (Specialist), Honours BSc / Child Study and Education, MA
- UTM, Psychology (Major), Honours BSc / Child Study and Education, MA
- UTM, Psychology (Specialist), Honours BSc / Child Study and Education, MA

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Addiction Studies
  - Counselling and Clinical Psychology (Clinical and Counselling Psychology field), MA, PhD
- Aging, Palliative and Supportive Care Across the Life Course
  - Counselling and Clinical Psychology, MA, PhD
  - Counselling Psychology, MEd, EdD
- Community Development (admissions have been administratively suspended)
  - Counselling and Clinical Psychology (Clinical and Counselling Psychology field), MA
  - Counselling Psychology, MEd
- Educational Policy (admissions have been administratively suspended)
  - Developmental Psychology and Education, MA, MEd, PhD
- Neuroscience
  - Developmental Psychology and Education, MA, PhD
- Sexual Diversity Studies
  - Counselling and Clinical Psychology, MA, PhD
  - Counselling Psychology, MEd, EdD
- Women and Gender Studies
  - Counselling and Clinical Psychology, MA, PhD
  - Counselling Psychology, MEd, EdD
Overview

Guided by the highest standards of scholarship and a commitment to equity and social justice, students and faculty in the Department of Applied Psychology and Human Development examine major issues in education, human development, applied psychology and professional practice, answering the critical questions that create action in the professional practice of the hundreds of thousands of teachers, researchers, counsellors, clinical and school psychologists, psychotherapists, professionals, policy makers, leaders, and influencers who are part of the OISE community worldwide.

All programs in the department commence in September.

Contact and Address

Admissions

Initial inquiries regarding admission to graduate studies in the Department of Applied Psychology and Human Development should be made directly to:

Web: www.oise.utoronto.ca/registrar-students
Email: admissions.oise@utoronto.ca
Tel: (416) 978-4300
Fax: (416) 323-9964

Registrar's Office and Student Experience
Ontario Institute for Studies in Education (OISE)
University of Toronto
252 Bloor Street West, Room 8-225
Toronto, Ontario M5S 1V6
Canada

Programs

Web: www.oise.utoronto.ca/aphd
Email: oise.aphd@utoronto.ca

Department of Applied Psychology and Human Development
Ontario Institute for Studies in Education
University of Toronto
252 Bloor Street West, 9th Floor
Toronto, Ontario M5S 1V6
Canada

APHD: Graduate Faculty

Full Members

Andrade, Brendan - PhD
Ansloos, Jeffrey - PhD
Barrera, Maria - MA, PhD
Brian, Jessica - BA, MA, PhD
Chen, Becky - BA, MEd, MA, PhD
Chen, Charles - BA, MEd, MA, PhD
Deacon, Helene - BS, PhD, PhD
Ducharme, Joseph - BA, MPsy, PhD
Ferrari, Michel - BA, MA, PhD
Ganea, Patricia - BA, MA, PhD
Geva, Esther - BA, MA, PhD
Gillis, Roy - BSc, MA, PhD
Goldstein, Abby - BA, MA, PhD
Haltigan, John - BA, MA, PhD
Hamza, Chloe - BA, MA, PhD
Jang, Eunice Eunhee - BA, MA, PhD
Jenkins, Jennifer - BA, MA, PhD
Lee, Kang - BSc, MEd, PhD
Martinussen, Rhonda - BE, MEd, PhD
McCready, Lance - BA, MA, PhD
Moodley, Roy - BA, MA, PhD
Moss, Joan - BA, MA, PhD
O'Sullivan, Julia - BA, MA, PhD
Pelletier, Janette - AB, BE, MEd, PhD
Perlman, Michal - BA, MA, PhD
Peterson-Badali, Michele - BA, MA, PhD
Pyle, Angela - BEd, BA, MEd, PhD
Schmuckler, Mark - BA, PhD
Schneider, Margaret - BA, MA, PhD
Scott, Katreena - BA, MA, PhD
Slotta, James - BS, MPsy, PhD
Stermac, Lana - BSc, MA, PhD
Stewart, Suzanne - BA, MA, PhD
Volpe, Richard - BA, MA, PhD
Watson, Jeanne - PhD
Wiener, Judith - BA, MEd, PhD
Willows, Dale - PhD
Woodruff, Earl - MA, PhD (Chair and Graduate Chair)

Members Emeriti

Corter, Carl M. - BA, PhD
Oatley, Keith - BA, PhD
Tannock, Rosemary - BSc, MA, PhD

Associate Members

Augimeri, Leena - BA, MEd, PhD
Bedard, Anne-Claude - BSc, MSc, PhD
Cleovoulou, Yiola - BA, BEd, MA, PhD
Crosbie, Jennifer - PhD
Ganson, Kyle - MSW, PhD
Garrett-Walker, J. - BA, MA, MPH, PhD
Gutowski, Ellen - MA
Ivers, Noah - MD
Iwenofu, Linda - PhD
Jasinska, Kaja - DPhil
Katz, Steven - BA, MEd, PhD
Lo, Hung-Tat - MBBS
Makos, Alexandra - DPhil
Patel, Mitesh - BSc, MD
Plamondon, Andre - BA, PhD
Schmidt, Fred - BA, MA, PhD
Silver, Judith - BSc, PhD
Wade, Mark - PhD

APHD: Child Study and Education MA

Master of Arts

Program Description

The Master of Arts in Child Study and Education Program is offered at the Dr. Eric Jackman Institute of Child Study, a centre of professional teacher training and research in childhood and education, which includes a Nursery through Grade 6 Laboratory School.
The philosophy of this program is based on the belief that successful teaching requires an understanding of how children’s capacities, concerns, and behaviour change with age, how individual differences reflect developmental changes, and how social and physical environments influence children’s development.

The program introduces students to educational and developmental theory and research relevant to educational settings, showing how this research can inform classroom practice. Students also learn how to objectively study children, using both practical assessment and formal methods of inquiry. These areas of knowledge combined with knowledge of effective teaching methods (such as an inquiry-based approach) and learning environments result in educational practices that build on children’s current levels of development.

The non-thesis program requires two years of full-time study leading to a Master of Arts degree. Graduates are recommended to the Ontario College of Teachers for a Certificate of Qualification, which qualifies the holder to teach in the primary and junior divisions (junior kindergarten to grade 6) of Ontario schools. Research is embedded throughout the courses and the program.

This program includes a field in Practice-Based Inquiry (PBI) in Psychology and Educational Practice.

Field: Practice-Based Inquiry (PBI) in Psychology and Educational Practice

The Practice-Based Inquiry (PBI) in Psychology and Educational Practice field of study is for those who wish to become classroom teachers and acquire the skills to continuously grow, improve, and lead. The field is based on the use of collaborative inquiry and data-based decision making to enhance teachers’ practice and student learning and success (working cooperatively with colleagues and using data and research findings to meet student needs). This field will provide a foundation in the use of a broad range of information sources to address questions of practice using an inquiry cycle.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development’s additional admission requirements stated below.
- An appropriate bachelor’s degree (usually a four-year degree) with the equivalent of a University of Toronto mid-B or better in the final year.
- Applicants are also expected to have experience working with groups of children, preferably in responsible positions.
- Normally, an interview is required prior to admission.
- A satisfactory vulnerable sector screening (VSS) police check is required prior to having direct contact with students. Without proof of a satisfactory VSS, schools will not allow teacher education candidates to participate in practice teaching.

Program Requirements

- **Coursework.** Students must complete 11.0 full-course equivalents (FCEs) including practicum placements and an internship as follows:
  - **Year 1** — 7.0 FCEs as follows:
    - APD2200Y Child Study Foundations: Security, Wellbeing, Development, and Equity (1.0 FCE).
    - APD2201Y Education Seminar I: Professional Practice, Critical Pedagogies, and Social Studies (1.0 FCE).
    - APD2210Y Introduction to Curriculum I: Core Areas (1.0 FCE).
    - APD2220Y Teaching Practicum (1.0 FCE).
    - APD2270Y Special Education and Adaptive Instruction (1.0 FCE).
    - APD1226H Foundations in Inquiry and Data-Based Decision Making (0.5 FCE).
    - 1.5 elective FCEs (equivalent to three half courses) chosen from among master’s-level courses in the Department of Applied Psychology and Human Development and, in some cases, other departments; to be completed during the Spring (May/June) and Summer (July/August) sessions.
    - Students without an undergraduate course in child development must take APD1201H Child and Adolescent Development (0.5 FCE) as an elective.
  - Eligible students registered in the Primary/Junior division who, in addition to an Ontario Teachers’ Certificate of Qualification, wish to pursue the French as a Second Language (FSL) qualification, must successfully complete the following requirements:
    - Pass an OISE French Proficiency Test prior to completing the following two courses.
    - Complete both CTL7200H Curriculum and Teaching in French as a Second Language — Primary/Junior and CTL3204H L’immersion française: enseignement et recherches within the elective space.
    - Complete one practicum placement in a French classroom following successful completion of the French Proficiency Test and both CTL7200H and CTL3204H.
  - Registration in Year 2 of the program is contingent upon successful completion of all Year 1 work.
  - **Year 2** — 4.0 FCEs as follows:
    - APD2211H Language and Literacy: Understanding, Assessment, and Instruction (0.5 FCE).
    - APD2212H Mathematics Learning and Instruction (0.5 FCE).
    - APD2214H Arts Curriculum and Critical Pedagogies for Cross-Curricular Teaching (0.5 FCE).
    - APD2221Y Teaching Internship (1.0 FCE).
    - APD2222H Professional Practice: Enacting a Research-Informed Learning Cycle (0.5 FCE), taken during the internship session of Year 2.
    - APD2223H Professional Practice: Developing the Skills of Critical Friendship (0.5 FCE), taken during the academic session of Year 2.
    - APD2202H Education Seminar II: Current Issues in Teaching and Learning (0.5 FCE), taken during the internship session of Year 2.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)
APHD: Child Study and Education EdD

Admissions have been administratively suspended.

Doctor of Education

Program Description

This professional doctorate is designed to prepare professionals working in the field of education (or a highly related area) to extend their professional knowledge and practice to further develop their ability to be scholar-practitioners within child study. This program aims to provide practitioners with an advanced degree to enable them to engage in innovation, advanced professional practice, and understand how the field of child study can inform decision making in multiple contexts including the classroom.

This degree is designed for practitioners who are working within contexts in which children are served or supported and/or in a community setting. They should be able to identify how their work environment would be able to support and facilitate their research related to their problem of practice, which is a major outcome of this degree.

A letter from an employer supporting the potential candidate’s goals and ability to conduct their applied research within the school or community setting is required.

Applicants who hold an MEd or other non-thesis master’s degree must submit evidence of their ability to identify a research question or problem, to design and conduct a research study or project, and to report the findings or results, all in a rigorous manner. This constitutes a Qualifying Research Paper (QRP) or Major Research Paper (MRP). Applicants who do not have a QRP or MRP must provide a writing sample that highlights their ability to write clearly and analytically about issues in education and/or child study. Examples include a single authored master’s-level course paper, a policy document, or a professional publication.

An interview may be required prior to admission.

Program Requirements

- **Coursework.** Students must complete a minimum of 4.0 full-course equivalents (FCEs) as follows:
  - APD3301H Issues in Child Study and Education: Research, Policy, and Problems of Practice (RM) (0.5 FCE).
  - APD3302H Advanced Study of Critical Issues in Special Education, Mental Health, and Child Security (0.5 FCE).
  - APD3303H Advanced Study of Tools and Research Methods for Investigating Problems of Practice: Data-Driven Research for Decision-Making (0.5 FCE).
  - APD3304H Research Proposal Development (RM) (0.5 FCE).
  - Two half courses (1.0 FCE) from one of the three emphases: 1) Early Learning and Early Years; 2) Mental Health and Wellbeing; or 3) Special Education. See details on each emphasis below.
  - Research Methods course (select from the list of available research methods courses) (0.5 FCE).
  - APD3305H Systems and Organizational Change (0.5 FCE).

- Students will have successfully reached candidacy once their thesis committee is formed and formal approval of the thesis proposal has been given by the committee.

- The **thesis (Dissertation in Practice)** is the culminating component of the Doctor of Education degree in Child Study and Education that shall include an identification and investigation of a problem of practice, the application of theory and research to problems of practice and/or policy, and a design for implementation of ideas arising. Specifically, the thesis (Dissertation in Practice) consists of original research in the form of a written proposal or plan for innovative and impactful educational policy, guideline, advocacy, development project, or activism within an education-related field, aimed at improving practice at local, regional, national, or international levels.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the additional admission requirements of the Department of Applied Psychology and Human Development stated below. Please note that applicants will be accepted into this degree program **every other year**.

- A master’s degree: an MA or MEd degree in Education (for example, Master of Arts in Child Study and Education, Master of Education degree, Master of Teaching degree) with high academic standing (equivalent to a B+ or better) from a recognized university. Applicants with master’s degrees in other disciplines may be eligible to apply for admission, but may have to complete additional courses in developmental psychology and/or child study.

- Letter of Intent: applicants must submit a well-written letter of intent in which they highlight their research interests, provide some insight into the problem of practice they are currently wishing to address, and describe their professional experiences and how these relate to their research interests and proposed problem of practice.

- Normally applicants will have in-depth work experience (i.e., normally a minimum of 3 years of current or recent work experience) in an education-related field within a school or community setting. They should be able to identify how their work environment would be able to support and facilitate their research related to their problem of practice, which is a major outcome of this degree.

- A letter from an employer supporting the potential candidate’s goals and ability to conduct their applied research within the school or community setting is required.

**Note:** students should consult with their faculty advisor and/or graduate liaison officer regarding available options.

Time Limit

3 years full-time
• Students are full-time and must maintain continuous, full-time registration and pay full-time fees until all degree requirements, including the thesis (Dissertation in Practice), are completed.
• Students cannot transfer between the EdD and PhD programs.

Program Length
4 years full-time

Time Limit
6 years

APHD: Child Study and Education EdD Emphases

Emphasis: Early Learning and Early Years

This emphasis will allow students to take specialized courses which address social emotional wellbeing in the early years. This emphasis is designed to help students gain a deeper understanding and expertise in early learning and early years while also integrating their knowledge and understanding of special education, security, and child and youth wellbeing.

• Coursework. From the following course list, EdD students must successfully complete 1.0 full-course equivalent (FCE), which is counted towards the total FCEs required for the student's degree program:
  o APD1211H, APD1249H, APD1272H, APD1280H, APD1286H, APD3273H.

Upon successful completion of the emphasis requirements and degree requirements, students may make a request to the CSE Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.

Emphasis: Mental Health and Wellbeing

This emphasis will allow students to take specialized courses which address the mental health of children and/or youth in various settings including the classroom as well as delve into issues of risk and resilience and culture. This emphasis is designed to help students gain a deeper understanding of and expertise in special education, security, and child and youth wellbeing.

• Coursework. From the following course list, EdD students must successfully complete 1.0 full-course equivalent (FCE), which is counted towards the total FCEs required for the student's degree program:
  o APD1236H, APD1256H, APD1279H, APD1295H, APD1297H, APD3221H.

Upon successful completion of the emphasis requirements and degree requirements, students may make a request to the CSE Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.

APHD: Child Study and Education MA Courses

Year 1 Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>APD1226H</td>
<td>Foundations in Inquiry and Data-Based Decision Making</td>
</tr>
<tr>
<td>APD2200Y</td>
<td>Child Study Foundations: Security, Wellbeing, Development, and Equity</td>
</tr>
<tr>
<td>APD2201Y</td>
<td>Education Seminar I: Professional Practice, Critical Pedagogies, and Social Studies</td>
</tr>
<tr>
<td>APD2210Y</td>
<td>Introduction to Curriculum I: Core Areas</td>
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<tr>
<td>APD2220Y</td>
<td>Teaching Practicum</td>
</tr>
<tr>
<td>APD2270Y</td>
<td>Special Education and Adaptive Instruction (Exclusion: APD2280Y.)</td>
</tr>
</tbody>
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Plus

• Three elective half courses to be completed during the Spring/Summer session.

Plus

• Full-year religious education course (if interested in teaching in the Roman Catholic separate school board). This course does not count towards the Child Study and Education program requirements. There is a separate fee. Students interested in this option should contact the OISE Continuing and Professional Learning Office for course enrolment information.
Note: Students without an undergraduate course credit in child development must take APD1201H Child and Adolescent Development as one of their electives.

Year 2 Required Courses

Registration in Year 2 is contingent upon successful completion of all Year 1 work.

Academic Session

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>APD2211H</td>
<td>Language and Literacy: Understanding, Assessment, and Instruction</td>
</tr>
<tr>
<td>APD2212H</td>
<td>Mathematics Learning and Instruction</td>
</tr>
<tr>
<td>APD2214H</td>
<td>Arts Curriculum and Critical Pedagogies for Cross-Curricular Teaching (Prerequisite: APD2210Y.)</td>
</tr>
<tr>
<td>APD2222H</td>
<td>Professional Practice: Enacting a Research-Informed Learning Cycle</td>
</tr>
<tr>
<td>APD2223H</td>
<td>Professional Practice: Developing the Skills of Critical Friendship</td>
</tr>
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</table>

Internship Session

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>APD2202H</td>
<td>Education Seminar II: Current Issues in Teaching and Learning</td>
</tr>
<tr>
<td>APD2221Y</td>
<td>Teaching Internship</td>
</tr>
</tbody>
</table>

In addition, students must demonstrate knowledge of the Acts and Regulations respecting education in Ontario (addressed in APD2202H).

French as a Second Language Qualification Courses

- Eligible students registered in the Primary/Junior division who, in addition to an Ontario Teachers’ Certificate of Qualification, wish to pursue the French as a Second Language (FSL) qualification, must successfully complete the following requirements:
  - Pass an OISE French Proficiency Test prior to completing the following two courses.
  - Complete both CTL7200H Curriculum and Teaching in French as a Second Language — Primary/Junior and CTL3204H L’immersion française: enseignement et recherches within the elective space.
  - Complete one practicum placement in a French classroom following successful completion of the French Proficiency Test and both CTL7200H and CTL3204H.

Recommended Elective Courses

Depending on their career goals, students may wish to select courses and placements to focus on particular areas:

Special Education

Students planning a career in special needs education may consider Special Education as a focused area of study. Such students are strongly encouraged to complete two recommended Special Education electives beyond their core foundation course (APD2270Y).

Early Childhood

Students interested in kindergarten programs may consider Early Childhood as a focused area of study. Such students are strongly encouraged to complete one or more recommended Early Childhood elective course plus an internship in a kindergarten class.

Course List

Not all courses are offered every year. Please review the course schedule on the Registrar’s Office and Student Experience website.

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>APD1201H</td>
<td>Child and Adolescent Development</td>
</tr>
<tr>
<td>APD1209H</td>
<td>Research Methods and Thesis Preparation in AP&amp;HD</td>
</tr>
<tr>
<td>APD1211H</td>
<td>Psychological Foundations of Early Development and Education</td>
</tr>
<tr>
<td>APD1217H</td>
<td>Foundations of Proactive Behavioural and Cognitive-Behavioural Intervention in Children</td>
</tr>
<tr>
<td>APD1226H</td>
<td>Foundations in Inquiry and Data-Based Decision Making</td>
</tr>
<tr>
<td>APD1249H</td>
<td>Social-Emotional Development and Applications</td>
</tr>
<tr>
<td>APD1256H</td>
<td>Child Abuse: Intervention and Prevention</td>
</tr>
<tr>
<td>APD1271H</td>
<td>Perspectives on Executive Functions in Education: From Theory to Practice</td>
</tr>
<tr>
<td>APD1272H</td>
<td>Play and Education</td>
</tr>
<tr>
<td>APD1276H</td>
<td>Maximizing Learning: Understanding How Individuals and Groups Learn Best (Exclusions: APD1274H, APD5020H, APD5034H.)</td>
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<tr>
<td>APD1280H</td>
<td>Symbolic Development and Learning</td>
</tr>
<tr>
<td>APD1286H</td>
<td>Foundations of Literacy Development for School Age Children</td>
</tr>
<tr>
<td>APD1294H</td>
<td>Technology, Psychology, and Play</td>
</tr>
<tr>
<td>APD1296H</td>
<td>Assessing School-Aged Language Learners</td>
</tr>
<tr>
<td>APD1298H</td>
<td>Imagination, Reasoning, and Learning</td>
</tr>
<tr>
<td>APD2001Y</td>
<td>Major Research Paper</td>
</tr>
<tr>
<td>APD2200Y</td>
<td>Child Study Foundations: Security, Wellbeing, Development, and Equity</td>
</tr>
</tbody>
</table>
APD2201Y Education Seminar I: Professional Practice, Critical Pedagogies, and Social Studies
APD2202H Education Seminar II: Current Issues in Teaching and Learning
APD2210Y Introduction to Curriculum I: Core Areas
APD2211H Language and Literacy: Understanding, Assessment, and Instruction
APD2212H Mathematics Learning and Instruction
APD2214H Arts Curriculum and Critical Pedagogies for Cross-Curricular Teaching (Prerequisite: APD2210Y.)
APD2220Y Teaching Practicum
APD2221Y Teaching Internship
APD2222H Professional Practice: Enacting a Research-Informed Learning Cycle
APD2223H Professional Practice: Developing the Skills of Critical Friendship
APD2232H Consultation Skill Development for Educators
APD2270Y Special Education and Adaptive Instruction (Exclusion: APD2280Y.)
APD2275H Technology for Adaptive Instruction and Special Education
APD2293H Interpretation of Educational Research
APD2296H Reading and Writing Difficulties
APD3201H Qualitative Research Methods in Human Development and Applied Psychology (RM)
APD3202H A Foundation of Program Evaluation in Social Sciences (RM)
APD3301H Issues in Child Study and Education: Research, Policy, and Problems of Practice (RM)
APD3302H Advanced Study of Critical Issues in Special Education, Mental Health, and Child Security (Prerequisite: APD3301H.)
APD3303H Advanced Study of Tools and Research Methods for Investigating Problems of Practice: Data-Driven Research for Decision-Making
APD3304H Research Proposal Development (RM)
APD3305H Systems and Organizational Change
JOI1288H Intermediate Statistics and Research Design (RM)
JOI3228H Mixed Methods Research Design in Social Sciences (RM)

APHD: Child Study and Education EdD Courses

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</tr>
<tr>
<td>APD2232H</td>
<td>Consultation Skill Development for Educators</td>
</tr>
<tr>
<td>APD2270Y</td>
<td>Special Education and Adaptive Instruction (Exclusion: APD2280Y.)</td>
</tr>
<tr>
<td>APD2275H</td>
<td>Technology for Adaptive Instruction and Special Education</td>
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<td>Qualitative Research Methods in Human Development and Applied Psychology (RM)</td>
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<tr>
<td>APD3202H</td>
<td>A Foundation of Program Evaluation in Social Sciences (RM)</td>
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<td>JOI3228H</td>
<td>Mixed Methods Research Design in Social Sciences (RM)</td>
</tr>
</tbody>
</table>

APHD: Counselling and Clinical Psychology MA; Field: Clinical and Counselling Psychology

Master of Arts

Program Description

The Counselling and Clinical Psychology program offers studies leading to the MA and PhD degrees. It is offered by the graduate Department of Applied Psychology and Human Development at the Ontario Institute for Studies in Education (OISE), St. George campus, and the Graduate Department of Psychological Clinical Science at the University of Toronto Scarborough (UTSC).

This graduate program is intended for students seeking to pursue careers in research, teaching, and clinical practice. At the time of application, students will be required to identify a preference for a specific field as well as for a potential supervisor with whom they would work if admitted to the program.

The program has two fields:

- Clinical and Counselling Psychology, offered by OISE;
- Clinical Psychology, offered by UTSC.

The field in Clinical and Counselling Psychology is offered by the OISE Department of Applied Psychology and Human Development.

Individual Reading and Research Courses

<table>
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<tr>
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</tr>
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<tr>
<td>APD2252H</td>
<td>Individual Reading and Research in Human Development and Applied Psychology: Master's Level</td>
</tr>
</tbody>
</table>

Course that may continue over a program. The course is graded when completed.
This field is based on a bio-psycho-social model with an emphasis on diversity. It shares an emphasis with the Clinical Psychology field on the assessment and treatment of psychopathology in adults.

This MA program is designed for applicants interested in working as researchers or practitioners in a variety of psychological and educational settings. This program enables students to apply for registration with the College of Psychologists of Ontario (CPO) as a Psychological Associate. It also fulfills the course and practicum requirements of students who plan to apply to the PhD program, Clinical and Counselling Psychology field at OISE.

The MA is taken on a full-time or part-time basis. However, students in the part-time option will be required to complete one year of full-time study to fulfil their degree requirements.

For 2023-24 and further extension to the 2024-25 academic year, admissions to the part-time option have been administratively suspended.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development's additional admission requirements stated below.
- An appropriate bachelor's degree in psychology or any appropriate bachelor's degree that would contain the psychology requirement equivalent (defined as 6.0 full-course equivalents [FCEs]) in psychology, including 0.5 FCE in research methods and 0.5 FCE in statistics. It is expected that students will have completed 1.0 FCE at the third- or fourth-year level in each of three core areas of general psychology:
  - biological bases of behaviour (for example, physiological psychology, comparative psychology, neuropsychology, psychopharmacology);
  - cognitive/affective bases of behaviour (for example, learning, sensation, perception, cognition, thinking, motivation, emotion); and
  - social bases of behaviour (for example, social psychology; cultural, ethnic, and group processes; sex roles; organizational and systems theory).
- Students who are missing courses in these core content areas will be required to complete additional courses during the MA or PhD degrees.
- A standing equivalent to a University of Toronto A– or better in the final year.

Program Requirements

- Coursework. Students must complete a total of 4.5 FCEs as follows:
  - APD1202H Theories and Techniques of Counselling and Psychotherapy — Part I (0.5 FCE).
  - APD1203Y* Practicum I: Interventions in Counselling Psychology and Psychotherapy (1.0 FCE) (500 hours of practicum). MA students will attend a minimum of three colloquium presentations during their program, which partially fulfills the course requirements for APD1203Y*.
  - APD1208Y* Cognitive and Personality Theory and Assessment (1.0 FCE).
  - APD1219H Ethical Issues in Professional Practice in Psychology and Psychotherapy (0.5 FCE).
  - APD1228H Couples Counselling (0.5 FCE) or APD1261H Group Work in Counselling and Psychotherapy (0.5 FCE) (or an equivalent course).
  - APD1263H Research Methods for Clinical and Counselling Psychology (RM) (0.5 FCE).
  - JO11288H Intermediate Statistics and Research Design (RM) (0.5 FCE).
- Master's thesis.
- Full-time option: Full-time, on-campus study is required from September to April, which represents the Fall and Winter sessions. Normally, 1.5 FCEs are taken in each of the Fall and Winter sessions and a maximum of 1.0 FCE in the Summer session. Under this option, it is expected that all degree requirements will be completed within two years.
- Part-time option (for 2023-24 and further extension to the 2024-25 academic year, admissions to the part-time option have been administratively suspended): For this option, students can register as part-time students at the beginning of their program. However, they will be required to register as full-time students for one year of the program. In this option, students will normally take 1.0 FCE annually during the beginning of their program and 1.5 FCEs in each of the Fall and Winter sessions in their year of full-time study. Once they have begun their last required course, they must register continuously and pay the part-time fees until all degree requirements have been completed. Under this option, it is expected that all degree requirements will be completed within two to three years, up to a maximum of six years.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S); 10 sessions part-time

Time Limit

3 years full-time; 6 years part-time

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

APHD: Counselling and Clinical Psychology

PhD; Field: Clinical and Counselling Psychology

Doctor of Philosophy

Program Description

The Counselling and Clinical Psychology program offers studies leading to the MA and PhD degrees. It is offered by the graduate Department of Applied Psychology and Human Development at the Ontario Institute for Studies in Education (OISE), St. George campus, and the Graduate Department of Psychological Clinical Science at the University of Toronto Scarborough (UTSC).
This graduate program is intended for students seeking to pursue careers in research, teaching, and clinical practice. At the time of application, students will be required to identify a preference for a specific field as well as for a potential supervisor with whom they would work if admitted to the program.

The program has two fields:

- Clinical and Counselling Psychology, offered by OISE;
- Clinical Psychology, offered by UTSC.

The field in Clinical and Counselling Psychology is offered by the OISE Department of Applied Psychology and Human Development. This field is based on a bio-psycho-social model with an emphasis on diversity. It shares an emphasis with the Clinical Psychology field on the assessment and treatment of psychopathology in adults.

The principal aim of this PhD program is the development of research and theoretical knowledge in counselling and clinical psychology, assessment skills, and knowledge and training in professional issues. Students are expected to conduct advanced research and to develop professional knowledge and skills. Graduates will be prepared to assume a variety of positions in psychological teaching, research, and practice in universities, community settings and agencies offering psychological services, and in university or college counselling centres.

The Clinical and Counselling Psychology field offers both a full-time and flexible-time PhD, and progress in the program will be reviewed annually. This field was accredited in both the areas of counselling and clinical psychology by the Canadian Psychological Association (CPA) for a six-year term in 2022. It is currently the only program in Canada to hold such a dual accreditation status.

For 2023-24 and further extension to the 2024-25 academic year, admissions to the flexible-time PhD option have been administratively suspended.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development's additional admission requirements stated below.

- An appropriate bachelor's degree in psychology or any appropriate bachelor's degree that would contain the psychology requirement equivalent (defined as 6.0 full-course equivalents [FCEs] in psychology, including 0.5 FCE in research methods and 0.5 FCE in statistics, with a standing equivalent to a University of Toronto A– or better in the final year. It is expected that students will have completed 1.0 FCE at the third- or fourth-year level in each of three core areas of general psychology:
  - biological bases of behaviour (for example, physiological psychology; comparative psychology, neuropsychology, psychopharmacology);
  - cognitive/affective bases of behaviour (for example, learning, sensation, perception, cognition, thinking, motivation, emotion); and
  - social bases of behaviour (for example, social psychology; cultural, ethnic, and group processes; sex roles; organizational and systems theory).

- Students who are missing courses in these areas may be required to complete additional courses during the degree.

- A University of Toronto MA degree in Clinical and Counselling Psychology with a grade of A– or better, or its equivalent. However, if the master's program was not equivalent to the U of T MA in Counselling and Clinical Psychology, the student will be required to take additional courses to receive equivalent training.

**Program Requirements**

- **Coursework.** Students must complete a minimum of 5.5 FCEs as follows:
  - 2.5 FCEs in Counselling and Psychotherapy:
    - APD3215H Advanced Psychotherapy Seminar;
    - APD3217Y+ Advanced Practicum in Clinical and Counselling Psychology (Credit/No Credit; 600-hour practicum); and APD3268Y Internship in Clinical and Counselling Psychology (1,600-hour internship — arrangements must be made in consultation with the Director of Clinical Training). PhD students will attend a minimum of six colloquium presentations during their program, which partially fulfills the course requirements for APD3268Y.
  - 1.0 FCE in Psychology Measurement/Assessment and Diagnosis:
    - APD3225H Assessment and Diagnosis of Personality and Psychopathology; and
    - APD3260H Psychodiagnostic Systems.
  - 0.5 FCE in Supervision and Consultation:
    - APD3261H+ Clinical Supervision and Consultation Practicum.
  - 1.0 FCE in Advanced Research Methods:
    - APD3202H A Foundation of Program Evaluation in Social Sciences (RM); and
    - An advanced-level statistics course (in consultation with supervisors). Courses can be drawn from those offered at OISE or other Faculties with the permission of the instructor.
  - 0.5 FCE in History and Systems Psychology:
    - APD3204H Contemporary History and Systems in Human Development and Applied Psychology.

- **Comprehensive examination:** In addition to normal course requirements, students will complete two comprehensive components. First, a manuscript for publication and presentation at a peer review conference, normally in Year 1 of the program. Second, students will be examined systematically in general psychology and in professional psychology. The examination will normally be taken at the end of Year 2 of full-time study.

- **Doctoral dissertation:** All students must develop, complete, and defend in a Doctoral Final Oral Examination a doctoral dissertation supervised by a full-time member of the Counselling and Clinical Psychology faculty. The content of such dissertation research may address theoretical issues applicable to clinical and counselling concerns and practice, relate to the development of programs in a variety of educational or applied settings, or in some other way contribute to the development and practice of clinical and counselling psychology.

  - Students must register continuously and pay the full-time fee until all degree requirements have been fulfilled.
  - Students cannot transfer between the full-time and flexible-time PhD options.
**Program Length**

5 years

**Time Limit**

6 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

**PhD Program (Flexible-Time)**

For 2023-24 and further extension to the 2024-25 academic year, admissions to the flexible-time PhD option have been administratively suspended.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development's additional admission requirements stated below.

- An appropriate bachelor's degree in psychology or any appropriate bachelor's degree that would contain the psychology requirement equivalent (defined as 6.0 full-course equivalents [FCEs] in psychology, including 0.5 FCE in research methods and 0.5 FCE in statistics, with a standing equivalent to a University of Toronto A– or better in the final year. It is expected that students will have completed 1.0 FCE at the third- or fourth-year level in each of three core areas of general psychology:
  - biological bases of behaviour (for example, physiological psychology; comparative psychology, neuropsychology, psychopharmacology);
  - cognitive/affective bases of behaviour (for example, learning, sensation, perception, cognition, thinking, motivation, emotion); and
  - social bases of behaviour (for example, social psychology; cultural, ethnic, and group processes; sex roles; organizational and systems theory).

- Students who are missing courses in these areas may be required to complete additional courses during the degree.

- A University of Toronto MA degree in Clinical and Counselling Psychology with a grade of A– or better, or its equivalent. However, if the master's program was not equivalent to the U of T MA in Counselling and Clinical Psychology, the student will be required to take additional courses to receive equivalent training.

- Applicants to the flexible-time PhD option are accepted under the same admission requirements as applicants to the full-time PhD option; the exception is that applicants must demonstrate that they are currently employed, and active professionals engaged in activities relevant to their proposed program of study.

**Program Requirements**

- **Coursework.** Students must complete a minimum of 5.5 FCEs as follows:
  - 2.5 FCEs in Counselling and Psychotherapy:
    - APD3217Y*Advanced Practicum in Clinical and Counselling Psychology (Credit/No Credit; 600-hour practicum); and APD3268Y Internship in Clinical and Counselling Psychology (1,600-hour internship — arrangements must be made in consultation with the Coordinator of Internship and Counselling Services). PhD students will attend a minimum of six colloquium presentations during their program, which partially fulfills the course requirements for APD3268Y.
  - 1.0 FCE in Psychology Measurement/Assessment and Diagnosis:
    - APD3225H Assessment and Diagnosis of Personality and Psychopathology; and
    - APD3260H Psychodiagnostic Systems.
  - 0.5 FCE in Supervision and Consultation:
    - APD3261H+ Clinical Supervision and Consultation Practicum.
  - 1.0 FCE in Advanced Research Methods:
    - APD3202H A Foundation of Program Evaluation in Social Sciences (RM); and
    - An advanced-level statistics course (in consultation with supervisors). Courses can be drawn from those offered at OISE or other Faculties with the permission of the instructor.
  - 0.5 FCE in History and Systems Psychology (if not already satisfied by the completion of a third- or fourth-year undergraduate psychology course in this area):
    - APD3204H Contemporary History and Systems in Human Development and Applied Psychology.

- **Comprehensive examination:** In addition to normal course requirements, students will complete two comprehensive components. First, a manuscript for publication and presentation at a peer review conference, normally in Year 1 of the program. Second, students will be examined systematically in general psychology and in professional psychology. The examination will normally be taken at the end of Year 2 of full-time study.

- **Doctoral dissertation:** All students must develop, complete, and defend in a Doctoral Final Oral Examination a doctoral dissertation supervised by a full-time member of the Counselling and Clinical Psychology faculty. The content of such dissertation research may address theoretical issues applicable to clinical and counselling concerns and practice, relate to the development of programs in a variety of educational or applied settings, or in some other way contribute to the development and practice of clinical and counselling psychology.

- Students must register continuously until all degree requirements have been fulfilled. They must register full-time during the first four years and may continue as part-time thereafter, with their department's approval.

- Students cannot transfer between the full-time and flexible-time PhD options.

**Program Length**

6 years

**Time Limit**

8 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
APHD: Counselling and Clinical Psychology
MA and PhD; Field: Clinical and Counselling Psychology Courses

Not all courses are offered every year. Please review the course schedule on the Registrar’s Office and Student Experience website.

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<td>APD1202H</td>
<td>Theories and Techniques of Counselling and Psychotherapy — Part I</td>
</tr>
<tr>
<td>APD1203Y*</td>
<td>Practicum I: Interventions in Counselling Psychology and Psychotherapy</td>
</tr>
<tr>
<td>APD1208Y*</td>
<td>Cognitive and Personality Theory and Assessment</td>
</tr>
<tr>
<td>APD1219H</td>
<td>Ethical Issues in Professional Practice in Psychology and Psychotherapy</td>
</tr>
<tr>
<td>APD1228H</td>
<td>Couples Counselling</td>
</tr>
<tr>
<td>APD1260H</td>
<td>Family Therapy (Exclusion: APD1261H.)</td>
</tr>
<tr>
<td>APD1261H</td>
<td>Group Work in Counselling and Psychotherapy</td>
</tr>
<tr>
<td>APD1263H</td>
<td>Research Methods for Clinical and Counselling Psychology (RM)</td>
</tr>
<tr>
<td>APD1267H</td>
<td>Emotion-Focused Therapy (Exclusion: APD5004H.)</td>
</tr>
<tr>
<td>APD1270H</td>
<td>Trauma Informed Interventions (Exclusion: APD5004H.)</td>
</tr>
<tr>
<td>APD3202H</td>
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<td>APD3204H</td>
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<td>APD3215H</td>
<td>Advanced Psychotherapy Seminar</td>
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<td>APD3217Y*</td>
<td>Advanced Practicum in Clinical and Counselling Psychology (Credit/No Credit)</td>
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<tr>
<td>APD3225H</td>
<td>Assessment and Diagnosis of Personality and Psychopathology</td>
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<tr>
<td>APD3260H</td>
<td>Psychodiagnostic Systems</td>
</tr>
<tr>
<td>APD3261H*</td>
<td>Clinical Supervision and Consultation Practicum (Pre- or corequisite: APD3217Y*.)</td>
</tr>
<tr>
<td>APD3268Y</td>
<td>Internship in Clinical and Counselling Psychology</td>
</tr>
<tr>
<td>APD5000H to APD5050H</td>
<td>Special Topics in Applied Psychology and Human Development: Master's Level</td>
</tr>
<tr>
<td>APD6000H to APD6016H</td>
<td>Special Topics in Applied Psychology and Human Development: Doctoral Level</td>
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Individual Reading and Research Courses

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<tbody>
<tr>
<td>JOI1287H</td>
<td>Introduction to Applied Statistics (RM)</td>
</tr>
<tr>
<td>JOI1288H</td>
<td>Intermediate Statistics and Research Design (RM)</td>
</tr>
<tr>
<td>JOI3048H</td>
<td>Intermediate Statistics in Educational Research: Multiple Regression Analysis (RM)</td>
</tr>
</tbody>
</table>

APHD: Counselling Psychology MEd; Field: Counselling and Psychotherapy

Master of Education

Program Description

The field in Counselling and Psychotherapy, within the Counselling Psychology MEd degree program, provides individuals with the opportunity to learn and develop skills appropriate for counselling individuals across a variety of work settings. Students are encouraged to tailor their courses and practicum learning experiences to meet their particular learning goals. Examples of the types of goals for which suitable programs of study could be developed include counselling and psychotherapy with adults, college and university students, or older adults: career counselling; counselling with diverse clients; and counselling and psychotherapy in community mental health and family service settings. The program of study provides students with the basic preparation for certification as a Certified Canadian Counsellor (CCC) with the Canadian Counselling and Psychotherapy Association (CCPA) and as a Registered Psychotherapist with the College of Registered Psychotherapists of Ontario (CRPO).

The MEd program is typically offered on a full-time basis with a limited number of part-time spots available.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the additional admission requirements of the Department of Applied Psychology and Human Development stated below.
- An appropriate bachelor’s degree of any background or discipline, with a grade equivalent to a University of Toronto B+ or better in the final year, from a recognized university.
At least one year of relevant counselling-related experience.
Two letters of reference.

Program Requirements

Coursework. Students must complete 5.0 full-course equivalents (FCEs) as follows:
- APD1202H Theories and Techniques of Counselling and Psychotherapy — Part I (0.5 FCE).
- APD1203Y* Practicum I: Interventions in Counselling Psychology and Psychotherapy (1.0 FCE). The practicum placement is the supervised training component of this course.
- APD1214H Critical Multicultural Practice: Diversity Issues in Counselling and Psychotherapy (0.5 FCE; corequisites: APD1202H and APD1302H).
- APD1219H Ethical Issues in Professional Practice and Psychotherapy (0.5 FCE).
- APD1260H Family Therapy (0.5 FCE) or APD1261H Group Work in Counselling and Psychotherapy (0.5 FCE).
- APD1302H Theories and Techniques of Counselling and Psychotherapy — Part II (0.5 FCE).
- 1.5 FCEs in electives. Recommended electives: one of
  - APD1266H Career Counselling and Development: Transition from School to Work (0.5 FCE).
  - APD1267H Emotion-Focused Therapy (0.5 FCE).
  - APD1268H Career Counselling and Development: Transitions in Adulthood (0.5 FCE).
  - APD1278H Cognitive Therapy (0.5 FCE).

A comprehensive examination. Upon completion of program course requirements, students must pass a written comprehensive exam of selected topics from the program curriculum and training.

Optional additional practicum, counted as one of the electives. Students may choose to complete a practicum (APD1247H Practicum in Adult Counselling and Psychotherapy) for an additional 250 hours of field placement concurrent with the required course (APD1203Y* Practicum I: Interventions in Counselling Psychology and Psychotherapy). Arrangements for the practicum placement must be made in consultation with and the approval of the Director of Clinical Training.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W); 10 sessions part-time

Time Limit

3 years full-time;
6 years part-time

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

APHD: Counselling Psychology MEd; Field: Global Mental Health and Counselling Psychology

Master of Education

Program Description

The field in Global Mental Health and Counselling Psychology, within the Counselling Psychology MEd degree program, provides individuals with the opportunity to learn and develop skills appropriate for the field of mental health and counselling psychology in international contexts. Students will be prepared to work in a variety of global applied settings with a focus on mental health. This degree program is ideally suited to students interested in an international perspective of mental health and counselling. This degree is cohort based and is offered full-time only.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the additional admission requirements of the Department of Applied Psychology and Human Development stated below.
- An appropriate bachelor's degree, with a grade equivalent to a University of Toronto B+ or better in the final year, from a recognized university.
- At least one year of relevant counselling-related experience.
- Two letters of reference.
- Normally, an interview is required prior to admission.

Program Requirements

Coursework. Students must complete 5.0 full-course equivalents (FCEs) as follows:
- APD1219H Ethical Issues in Professional Practice in Psychology and Psychotherapy (0.5 FCE).
- APD1228H Couples Counselling (0.5 FCE).
- APD1245H Brief Strategies in Counselling and Psychotherapy (0.5 FCE).
- APD1278H Cognitive Therapy (0.5 FCE).
- APD1282H Introduction to Global Mental Health and Counselling Psychology (0.5 FCE).
- APD1283H Peer and Video-Based Counselling with Practicum Field-Based Learning in Global Mental Health (0.5 FCE).
- APD1902H Theories and Techniques of Counselling in a Global Context (0.5 FCE).
- APD2293H Interpretation of Educational Research (0.5 FCE).
- APD5000H Special Topics in Applied Psychology and Human Development: Master's Level (0.5 FCE).
- In consultation with the program chair, students will take APD1268H Career Counselling and Development: Transitions in Adulthood, APD1291H Addictive Behaviours: Approaches to Assessment and Intervention, or another elective.
Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time

APHD: Counselling Psychology MEd; Field: Global Mental Health and Counselling Psychology (Dual Degree Programs)

1) Dual Degree Program: Master of Education (University of Toronto) / Master of Medicine (China Medical University)

Program Description

This dual degree program creates a pathway between U of T’s Master of Education (MEd) in Counselling Psychology, Global Mental Health and Counselling Psychology (GMHCP) field and China Medical University (CMU)’s Master of Medicine (MMed) in Psychiatry and Mental Health programs.

In Year 1, students complete MMed coursework at CMU in Liaoning Province, China. In Year 2, students complete MEd coursework at U of T in Toronto, Canada. In the Fall session of Year 3, students complete the last course of the MEd requirement (a practicum) in China along with the Year 3 MMed coursework. In Year 3, students will also complete a master’s thesis at CMU as part of the dual degree requirements.

Students will gain both degrees in three years rather than the four years it would take to acquire the degrees independently.

Contact

Master of Education / Master of Medicine Program
Web: www.oise.utoronto.ca/aphd/programs/master-education-counselling-psychology-global-mental-health-counselling-psychology-field/med

Master of Education Program
Department of Applied Psychology and Human Development, University of Toronto
Email: admissions.oise@utoronto.ca

Master of Medicine Program
Department of Medical Psychology and Mental Health, China Medical University
Email: mqu@cmu.edu.cn

Application Process

- Applicants must apply directly to both the Department of Applied Psychology and Human Development at U of T and the Department of Medical Psychology and Mental Health at CMU. Applicants must apply through U of T’s School of Graduate Studies online admissions application system.

Minimum Admission Requirements

- In order to be admitted to the dual degree program, applicants must meet the admission requirements of both programs. The admission requirements of the GMHCP field within the MEd program are stated below.
- Applicants are admitted under the General Regulations of the School of Graduate Studies at the University of Toronto as well as the specific requirements of the MEd program.
- An appropriate bachelor’s degree from a recognized university with a standing in the final year equivalent to at least a U of T B+.
- At least one year of relevant counselling experience, which could be paid or voluntary.
- Two letters of reference.
- Normally, an interview is required prior to admission to the MEd program.

Program Requirements

During their U of T registration in the GMHCP field within the MEd program, students must successfully complete a total of 5.0 full-course equivalents (FCEs).

Year 1

- Fall, Winter, and Summer sessions: students complete Year 1 MMed courses at CMU.

Year 2

- Students complete the following Year 2 MEd courses at U of T.
- Fall session (1.5 FCEs):
  - APD1282H Introduction to Global Mental Health and Counselling Psychology.
  - APD1902H Theories and Techniques of Counselling in a Global Context.
  - In consultation with the program chair, students will take APD1268H Career Counselling and Development: Transitions in Adulthood, APD1291H Addictive Behaviours: Approaches to Assessment and Intervention, or another elective.
- Winter session (2.0 FCEs):
  - APD1219H Ethical Issues in Professional Practice in Psychology and Psychotherapy.
  - APD1245H Brief Strategies in Counselling and Psychotherapy.
  - APD1278H Cognitive Therapy.
  - APD2293H Interpretation of Educational Research.
- May-to-June period of the Summer session (0.5 FCE): APD1228H Couples Counselling.
- July-to-August period of the Summer session (0.5 FCE): APD5000H Special Topics in Applied Psychology and Human Development: Master’s Level.

Year 3

- Fall session (0.5 FCE):
  - Complete the U of T MEd course APD1283H Peer and Video-Based Counselling with Practicum Field-Based Learning in Global Mental Health.
This is a 250-hour placement in an approved field setting and must be arranged prior to admission to this program.

- Continue the MMed program requirements at CMU.

- **Winter and Summer sessions:**
  - Complete the MMed program requirements at CMU.

**Program Length**

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

**2) Dual Degree Program: Master of Education (University of Toronto) / Master of Science (China Medical University)**

**Program Description**

This dual degree program creates a pathway between U of T's Master of Education (MEd) in Counselling Psychology, Global Mental Health and Counselling Psychology (GMHCP) field and China Medical University (CMU)'s Master of Science (MSc) in Applied Psychology programs.

In Year 1, students complete MSc coursework at CMU in Liaoning Province, China. In Year 2, students complete MEd coursework at U of T in Toronto, Canada. In the Fall session of Year 3, students complete the last course of the MEd requirement (a practicum) in China along with the Year 3 MSc coursework. In Year 3, students will also complete a master’s thesis at CMU as part of the dual degree requirements.

Students will gain both degrees in three years rather than the four years it would take to acquire the degrees independently.

**Contact**

Master of Education / Master of Science Program
Web: [www.oise.utoronto.ca/aphd/programs/master-education-counselling-psychology-global-mental-health-counselling-psychology-field/med](http://www.oise.utoronto.ca/aphd/programs/master-education-counselling-psychology-global-mental-health-counselling-psychology-field/med)

Master of Education Program
Department of Applied Psychology and Human Development, University of Toronto
Email: [admissions.oise@utoronto.ca](mailto:admissions.oise@utoronto.ca)

Master of Science Program
Department of Applied Psychology, China Medical University
Email: mqu@cmu.edu.cn

**Application Process**

- Applicants must apply directly to both the Department of Applied Psychology and Human Development at U of T and the Department of Applied Psychology at CMU. Applicants must apply through U of T’s School of Graduate Studies [online admissions application system](http://www.oise.utoronto.ca/aphd/programs/master-education-counselling-psychology-global-mental-health-counselling-psychology-field/med).

**Minimum Admission Requirements**

- In order to be admitted to the dual degree program, applicants must meet the admission requirements of both programs. The admission requirements of the GMHCP field within the MEd program are stated below.
- Applicants are admitted under the General Regulations of the School of Graduate Studies at the University of Toronto as well as the specific requirements of the MEd program.
- An appropriate bachelor's degree from a recognized university with a standing in the final year equivalent to at least a U of T B+.
- At least one year of relevant experience, which could be paid or volunteer.
- Two letters of reference.
- Normally, an interview is required prior to admission to the MEd program.

**Program Requirements**

During their U of T registration in the GMHCP field within the MEd program, students must successfully complete a total of 5.0 full-course equivalents (FCEs).

**Year 1**

- **Fall, Winter, and Summer sessions:** students complete Year 1 MSc courses at CMU.

**Year 2**

- Students complete the following Year 2 MEd courses at U of T.
  - **Fall session (1.5 FCEs):**
    - APD1282H Introduction to Global Mental Health and Counselling Psychology.
    - APD1902H Theories and Techniques of Counselling in a Global Context.
    - In consultation with the program chair, students will take APD1268H Career Counselling and Development: Transitions in Adulthood, APD1291H Addictive Behaviours: Approaches to Assessment and Intervention, or another elective.
  - **Winter session (2.0 FCEs):**
    - APD1219H Ethical Issues in Professional Practice in Psychology and Psychotherapy.
    - APD1245H Brief Strategies in Counselling and Psychotherapy.
    - APD1278H Cognitive Therapy.
    - APD2293H Interpretation of Educational Research.
  - **May-to-June period of the Summer session (0.5 FCE):**
    - APD1228H Couples Counselling.
  - **July-to-August period of the Summer session (0.5 FCE):**
    - APD5000H Special Topics in Applied Psychology and Human Development: Master’s Level.

**Year 3**

- **Fall session (0.5 FCE):**
  - Complete the U of T MEd course APD1283H Peer and Video-Based Counselling with Practicum Field-Based Learning in Global Mental Health.
This is a 250-hour placement in an approved field setting and must be arranged prior to admission to this program.

- Continue the MSc program requirements at CMU.

**Winter and Summer sessions:**
- Complete the MSc program requirements at CMU.

**Program Length**

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

3) Dual Degree Program: Master of Education (University of Toronto) / Master of Applied Psychology (Zhejiang University)

Admissions to this dual degree program have been administratively suspended for the 2024-25 admissions cycle.

**Program Description**

This dual degree program creates a pathway between U of T's Master of Education (MEd) in Counselling Psychology, Global Mental Health and Counselling Psychology (GMHCP) field and Zhejiang University (ZJU)'s Master of Applied Psychology (MAP) programs.

In Year 1, students complete MAP coursework at ZJU in Hangzhou, China. In Year 2, students complete MEd coursework at U of T in Toronto, Canada. In the Fall session of Year 3, students complete the last course of the MEd requirement (a practicum) in China along with the Year 3 MAP coursework. In Year 3, students will also complete a master's thesis at ZJU as part of the dual degree requirements.

Students will gain both degrees in three years rather than the four years it would take to acquire the degrees independently.

**Contact**

Master of Education / Master of Science Program
Web: www.oise.utoronto.ca/aphd/programs/master-education-counselling-psychology-global-mental-health-counselling-psychology-field/med

Master of Education Program
Department of Applied Psychology and Human Development, University of Toronto
Email: admissions.oise@utoronto.ca

Master of Applied Psychology Program
Department of Psychology and Behavioural Science, Zhejiang University
Email: jiananzhong@zju.edu.cn

**Application Process**

- Applicants must apply directly to both the Department of Applied Psychology and Human Development at U of T and the Department of Psychology and Behavioural Science at ZJU. Applicants must apply through U of T’s School of Graduate Studies online admissions application system.

**Minimum Admission Requirements**

- In order to be admitted to the dual degree program, applicants must meet the admission requirements of both programs. The admission requirements of the GMHCP field within the MEd program are stated below.
- Applicants are admitted under the General Regulations of the School of Graduate Studies at the University of Toronto as well as the specific requirements of the MEd program.
- An appropriate bachelor's degree from a recognized university with a standing in the final year equivalent to at least a U of T B+.
- At least one year of relevant experience, which could be paid or volunteer.
- Two letters of reference.
- Normally, an interview is required prior to admission to the MEd program.

**Program Requirements**

During their U of T registration in the GMHCP field within the MEd program, students must successfully complete a total of 5.0 full-course equivalents (FCEs).

**Year 1**

- **Fall, Winter, and Summer sessions:** students complete Year 1 MAP courses at ZJU.

**Year 2**

- Students complete the following Year 2 MEd courses at U of T.
- **Fall session (1.5 FCEs):**
  - APD1282H Introduction to Global Mental Health and Counselling Psychology.
  - APD1902H Theories and Techniques of Counselling in a Global Context.
  - In consultation with the program chair, students will take APD1288H Career Counselling and Development: Transitions in Adulthood, APD1291H Addictive Behaviours: Approaches to Assessment and Intervention, or another elective.
- **Winter session (2.0 FCEs):**
  - APD1219H Ethical Issues in Professional Practice in Psychology and Psychotherapy.
  - APD1245H Brief Strategies in Counselling and Psychotherapy.
  - APD1278H Cognitive Therapy.
  - APD2293H Interpretation of Educational Research.
- **May-to-June period of the Summer session (0.5 FCE):**
  - APD1212H Special Topics in Applied Psychology and Human Development: Master’s Level.
- **July-to-August period of the Summer session (0.5 FCE):**
  - APD1228H Couples Counselling.

**Year 3**

- **Fall session (0.5 FCE):**
  - Complete the U of T MEd course APD1283H Peer and Video-Based Counselling with Practicum Field-Based Learning in Global Mental Health.
This is a 250-hour placement in an approved field setting and must be arranged prior to admission to this program.

- Continue the MAP program requirements at ZJU.
- **Winter and Summer sessions:**
  - Complete the MAP program requirements at ZJU.

**Program Length**

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

**APHD: Counselling Psychology MEd; Field: Guidance and Counselling**

**Master of Education**

**Program Description**

The field in Guidance and Counselling, within the Counselling Psychology MEd degree program, provides individuals with the opportunity to learn and develop skills appropriate for the field of guidance and counselling in the schools. Strong preference for admission to this field is given to experienced teachers who are interested in specializing in guidance and counselling in the schools. The program of study provides students with the basic preparation for certification as a Certified Canadian Counsellor (CCC) with the Canadian Counselling and Psychotherapy Association (CCPA).

The MEd program is typically offered on a full-time basis with a limited number of part-time spots available.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the additional admission requirements of the Department of Applied Psychology and Human Development stated below.
- An appropriate bachelor’s degree, with a grade equivalent to a University of Toronto B+ or better in the final year, from a recognized university.
- Teacher certification.

**Program Requirements**

- **Coursework.** Students must complete 5.0 full-course equivalents (FCEs) as follows:
  - APD1202H Theories and Techniques of Counselling and Psychotherapy — Part I (0.5 FCE).
  - APD1203H Practicum I: Interventions in Counselling Psychology and Psychotherapy (1.0 FCE). The practicum placement is the supervised training component of this course.
  - APD1202H Theories and Techniques of Counselling and Psychotherapy — Part I (0.5 FCE).
  - APD1214H Critical Multicultural Practice: Diversity Issues in Counselling and Psychotherapy (0.5 FCE; corequisites: APD1202H and APD1302H).
  - APD1219H Ethical Issues in Professional Practice in Psychology and Psychotherapy (0.5 FCE).
  - APD1260H Family Therapy (0.5 FCE) or APD1261H Group Work in Counselling and Psychotherapy (0.5 FCE).
  - APD1262H Educational Psychological Testing for Counselling (0.5 FCE).
  - APD1266H Career Counselling and Development: Transition from School to Work (0.5 FCE).
  - APD1302H Theories and Techniques of Counselling and Psychotherapy — Part II (0.5 FCE).
  - 0.5 FCE in electives.
- A comprehensive examination. Upon completion of program course requirements, students will take a comprehensive examination of selected topics from the program curriculum and training.
- **Optional additional practicum.** Students may choose to complete a practicum (APD1247H Practicum in Adult Counselling and Psychotherapy) for an additional 250 hours of field placement concurrent with the required course APD1203Y+ Practicum I: Interventions in Counselling Psychology and Psychotherapy. Arrangements for the practicum placement must be made in consultation with and the approval of the Director of Clinical Training.

**Program Length**

5 sessions full-time (typical registration sequence: F/W/S/F/W);
10 sessions part-time

**Time Limit**

3 years full-time;
6 years part-time

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*

**APHD: Counselling Psychology EdD; Field: Counselling and Psychotherapy**

**Doctor of Education**

**Program Description**

Advanced counsellor training in this degree program emphasizes the role of the counsellor in educational and community settings with expertise in supervisory and consultative skills and advanced counselling theory and practice. Graduates will be prepared to take leadership positions in the field of counselling and psychotherapy as educators in colleges and institutes of education; as directors and coordinators of school guidance programs; as specialists in the provision of counselling-related, in-service training for school and college personnel; and as providers of advanced levels of personal counselling in community and educational settings.

The field in Counselling and Psychotherapy will be especially attractive to individuals who have demonstrated a career commitment to the provision of counselling-related services in an educational and community setting. This professional doctorate is designed to prepare students to refine and build on professional knowledge and practice to support the development of scholar-practitioners to be leaders in their fields of professional practice.
The Doctor of Education (EdD) program is only available on a full-time basis.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the additional admission requirements of the Department of Applied Psychology and Human Development stated below.
- Applicants must have the following to be admitted to the EdD program:
  - A bachelor's degree: an appropriate bachelor's degree of any background or discipline from a recognized university, with high academic standing.
  - A master's degree: an MA or MEd degree in Counselling Psychology or School and/or Clinical Child Psychology from the University of Toronto with a grade of B+ or better, or its equivalent from a recognized university. The applicant must have had successful professional experience and interest to increase and advance their knowledge of counselling and psychotherapy to become leaders in their fields. Applicants who hold an MEd or other non-thesis master's degree must submit evidence of their ability to identify a research question or problem, to design and conduct a research study or project, and to report the findings or results, all in a rigorous manner. This constitutes a Qualifying Research Paper (QRP).

**Program Requirements**

- **Coursework.** Students must take courses related to the development of advanced competence in counselling, psychotherapy, and mental health theory and practice and become sophisticated consumers of research in these and related fields. Students must complete a minimum of **5.5 full-course equivalents (FCEs)** including a practicum, internship, and thesis (dissertation in practice) as follows:
  - APD3115H* Research Proseminar in Counselling and Psychotherapy (0.5 FCE).
  - APD3215H Advanced Psychotherapy Seminar (0.5 FCE).
  - APD3216H* Clinical Supervision and Consultation Practicum (0.5 FCE).
  - APD3217Y* Advanced Practicum in Clinical and Counselling Psychology (1.0 FCE; Credit/No Credit): complete a 500-hour practicum before the Final Oral Examination.
  - APD3270H EdD Internship (0.5 FCE): complete 500 hours of internship, typically after the Final Oral Examination. All internship arrangements must be made in consultation with the Director of Clinical Training.
  - Three courses, one from each of the following three groupings:
    - APD3116H Proseminar II: Practice-Based Research in School and Counselling Psychology
    - APD3178H Advanced Cognitive Behaviour Therapy (0.5 FCE) or APD3160H Advanced Family Therapy (0.5 FCE)
    - APD3260H Psychodiagnostic Systems (0.5 FCE) or one elective in a special focus of interest (0.5 FCE).
  - In addition, students must take 1.0 FCE in their specific area of **focus**.
    - Option 1: Counselling and Psychotherapy for Adults
      - APD3163H Advanced Multicultural Counselling and Psychotherapy (0.5 FCE)
    - One elective in a special focus of interest (0.5 FCE)

- **Option 2: Counselling and Psychotherapy for Schools and Youth**
  - APD5284Y Assessment and Intervention with Culturally and Linguistically Diverse Children, Youth, and Families (1.0 FCE).

- **Optional additional practicum.** Students may choose to take an optional continuous practicum (APD3271H* Additional PhD Practicum) in conjunction with the required doctoral practicum course APD3217Y* Advanced Practicum in Clinical and Counselling Psychology (Credit/No Credit).

- **Thesis (dissertation in practice).** All students must complete a thesis (dissertation in practice), the aim of which is to ensure excellent knowledge of counselling and psychotherapy theory, practice, and policy for professionals working with adults or youth to function as leading scholars-practitioners. The thesis (dissertation in practice) should be:
  - a) well conceived, original, and likely to make a sustained contribution to mental health practice; b) involve creativity, innovative methods and techniques, and have the potential to improve practice; c) exemplary, sets high standards in the field, and can be emulated and; d) has the potential for significant public impact. The focus of the thesis (dissertation in practice) is expected to be on contributions to field development or to innovations in practice. Students will defend their thesis (dissertation in practice) at a Final Oral Examination.
  - Students are full-time and must maintain continuous, full-time registration and pay full-time fees until all degree requirements, including the thesis (dissertation in practice), are completed.
  - Students cannot transfer between the EdD and PhD programs.

**Program Length**

4 years full-time

**Time Limit**

6 years full-time

\* Course that may continue over a program. The course is graded when completed.

\* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

**APHD: Counselling Psychology EdD; Field: School Psychology**

**Doctor of Education**

**Program Description**

Counsellor training in this degree program emphasizes the role of the counsellor in educational and community settings with the goal of enhancing their expertise in their professional roles including supervisory and consultative skills and the advanced study of counselling theory and practice. Graduates will be prepared to take leadership positions in the field of counselling and psychotherapy; as educators in colleges and institutes of education; as directors and coordinators of school guidance...
programs; as specialists in the provision of counselling-related, in-service training for school and college personnel; and as providers of advanced levels of personal counselling in community and educational settings.

The field in School Psychology will be especially attractive to practitioners providing direct services to children and youth in the education system (K-12) and will provide school psychology practitioners with core theoretical and practical training needed to develop research-informed leaders in the field of school psychology. The program is structured to provide students with the requirements necessary for registration as a School Psychologist with the College of Psychologists of Ontario.

The Doctor of Education (EdD) program is only available on a full-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the additional admission requirements of the Department of Applied Psychology and Human Development stated below.
- Applicants must have the following to be admitted to the EdD program:
  - A bachelor's degree: an appropriate bachelor’s degree of any background or discipline from a recognized university, with high academic standing.
  - A master's degree: an MA or MEd degree in Counselling Psychology or School and/or Clinical Child Psychology from the University of Toronto with a grade of B+ or better, or its equivalent from a recognized university. The applicant must have had successful professional experience and interest to increase and advance their knowledge of counselling and psychotherapy to become leaders in their fields. Applicants who hold an MEd or other non-thesis master's degree must submit evidence of their ability to identify a research question or problem, to design and conduct a research study or project, and to report the findings or results, all in a rigorous manner. This constitutes a Qualifying Research Paper (QRP).
  - Applicants must demonstrate either undergraduate- or graduate-level competence in each of the five core content areas of psychology: 1) Biological Bases of Behaviour; 2) Cognitive/Affective Bases of Behaviour; 3) Historical and Scientific Foundations of Psychology; 4) Scientific and Professional Ethics (graduate level); and 5) Social Bases of Behaviour, by successful completion of 1.0 full-course equivalent (FCE) at the second-, third-, or fourth-year undergraduate level or 0.5 FCE at the graduate level.
  - If the above requirements are not met, students must take additional courses to ensure they have completed the above requirements by the end of their program.

Program Requirements

- Coursework. Students must take courses related to the development of advanced competence in counselling, psychotherapy, and mental health theory and practice and become sophisticated consumers of research in these and related fields. Students must complete a minimum of 5.5 full-course equivalents (FCEs) including a practicum, internship, and thesis (dissertation in practice) as follows:
  - APD3115H+ Research Proseminar in Counselling and Psychotherapy (0.5 FCE).
  - APD3215H Advanced Psychotherapy Seminar (0.5 FCE).
  - APD3261H+ Clinical Supervision and Consultation Practicum (0.5 FCE).
  - APD3217Y+ Advanced Practicum in Clinical and Counselling Psychology (1.0 FCE; Credit/No Credit): complete a 500-hour practicum before the Final Oral Examination.
  - APD3401H Assessment with Culturally and Linguistically Diverse Children, Youth, and Families (0.5 FCE).
  - APD3402H Intervention with Culturally and Linguistically Diverse Children, Youth, and Families (0.5 FCE).
  - APD3403H EdD Internship in School Psychology (0.5 FCE): complete 1,600 hours of internship, typically after the Final Oral Examination. All internship arrangements must be made in consultation with the Director of Clinical Training.
  - Three courses, one from each of the following three groupings:
    - APD3116H Proseminar II: Practice-Based Research in School and Counselling Psychology.
    - APD3178H Advanced Cognitive Behaviour Therapy (0.5 FCE) or APD3160H Advanced Family Therapy (0.5 FCE).
    - APD3260H Psychodiagnostic Systems (0.5 FCE) or one elective in a special focus of interest (0.5 FCE).
  - Optional additional practicum. Students may choose to take an optional continuous practicum (APD3271H+Additional Phd Practicum) in conjunction with the required doctoral practicum course APD3217Y+Advanced Practicum in Clinical and Counselling Psychology (Credit/No Credit).
  - Thesis (dissertation in practice). All students must complete a thesis (dissertation in practice), the aim of which is to ensure excellent knowledge of counselling or school psychology theory, practice, and policy for professionals working with adults or children/youth to function as leading scholar-practitioners. The thesis (dissertation in practice) should be: a) well conceived, original, and likely to make a sustained contribution to mental health or school psychology practice; b) involve creativity, innovative methods and techniques, and have the potential to improve practice; c) exemplary, sets high standards in the field, and can be emulated and; d) has the potential for significant public impact. The focus of the thesis (dissertation in practice) is expected to be on contributions to field development or to innovations in practice. Students will defend their thesis (dissertation in practice) at a Final Oral Examination.
  - Students are full-time and must maintain continuous, full-time registration and pay full-time fees until all degree requirements, including the thesis (dissertation in practice), are completed.
  - Students cannot transfer between the EdD and PhD programs.

Program Length

4 years full-time

Time Limit

6 years full-time

Course that may continue over a program. The course is graded when completed.

Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
APHD: Counselling Psychology MEd and EdD; Fields: Counselling and Psychotherapy; Global Mental Health and Counselling Psychology; Guidance and Counselling; School Psychology Courses

Not all courses are offered every year. Please review the course schedule on the Registrar’s Office and Student Experience website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>APD1202H</td>
<td>Theories and Techniques of Counselling and Psychotherapy — Part I (Exclusion: APD1202Y.)</td>
</tr>
<tr>
<td>APD1203Y+</td>
<td>Practicum I: Interventions in Counselling Psychology and Psychotherapy</td>
</tr>
<tr>
<td>APD1204H</td>
<td>Personality Theories</td>
</tr>
<tr>
<td>APD1207H</td>
<td>Counselling Topics in Sexual Orientation and Gender Identity Diversity</td>
</tr>
<tr>
<td>APD1214H</td>
<td>Critical Multicultural Practice: Diversity Issues in Counselling and Psychotherapy (Corequisites: APD1202H and APD1302H).</td>
</tr>
<tr>
<td>APD1219H</td>
<td>Ethical Issues in Professional Practice in Psychology and Psychotherapy</td>
</tr>
<tr>
<td>APD1228H</td>
<td>Couples Counselling</td>
</tr>
<tr>
<td>APD1229H</td>
<td>Individual and Group Psychotherapy for Counselling</td>
</tr>
<tr>
<td>APD1232H</td>
<td>Mindfulness Interventions in Counselling and Psychotherapy (Exclusion: APD5005H.)</td>
</tr>
<tr>
<td>APD1235H</td>
<td>Technology, Play, and Social Media in Adolescence (Exclusion: APD5017H.)</td>
</tr>
<tr>
<td>APD1245H</td>
<td>Brief Strategies in Counselling and Psychotherapy</td>
</tr>
<tr>
<td>APD1247H</td>
<td>Practicum in Adult Counselling and Psychotherapy</td>
</tr>
<tr>
<td>APD1252H</td>
<td>Individual Reading and Research in Counselling Psychology: Master's Level</td>
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<tr>
<td>APD1260H</td>
<td>Family Therapy (Exclusion: APD1261H.)</td>
</tr>
<tr>
<td>APD1261H</td>
<td>Group Work in Counselling and Psychotherapy</td>
</tr>
<tr>
<td>APD1262H</td>
<td>Educational and Psychological Testing for Counselling</td>
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<td>APD1266H</td>
<td>Career Counselling and Development: Transition from School to Work</td>
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<tr>
<td>APD1267H</td>
<td>Emotion-Focused Therapy (Exclusion: APD5004H.)</td>
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<td>APD1268H</td>
<td>Career Counselling and Development: Transitions in Adulthood</td>
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<tr>
<td>APD1270H</td>
<td>Trauma Informed Interventions (Exclusion: APD5032H.)</td>
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<tr>
<td>APD1271H</td>
<td>Perspectives on Executive Functions in Education: From Theory to Practice</td>
</tr>
<tr>
<td>APD1277H</td>
<td>Global Indigenous Healing in Counselling and Psychotherapy</td>
</tr>
<tr>
<td>APD1278H</td>
<td>Cognitive Therapy</td>
</tr>
<tr>
<td>APD1282H</td>
<td>Introduction to Global Mental Health and Counselling Psychology</td>
</tr>
<tr>
<td>APD1283H</td>
<td>Peer and Video-Based Counselling with Practicum Field-Based Learning in Global Mental Health</td>
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<tr>
<td>APD1290H</td>
<td>Indigenous Studies in Mental Health and Disability Justice</td>
</tr>
<tr>
<td>APD1302H</td>
<td>Theories and Techniques of Counselling and Psychotherapy — Part II (Prerequisite: APD1202H. Exclusion: APD1202Y.)</td>
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<tr>
<td>APD1902H</td>
<td>Theories and Techniques of Counselling in a Global Context</td>
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<td>APD2286H</td>
<td>Global Indigenous Healing in Counselling and Psychotherapy</td>
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<tr>
<td>APD2291H</td>
<td>Introduction to Global Mental Health and Counselling Psychology</td>
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<tr>
<td>APD2293H</td>
<td>Interpretation of Educational Research</td>
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<tr>
<td>APD2298H</td>
<td>Peer and Video-Based Counselling with Practicum Field-Based Learning in Global Mental Health</td>
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<tr>
<td>APD3115H+</td>
<td>Research Proseminar in Counselling and Psychotherapy</td>
</tr>
<tr>
<td>APD3116H</td>
<td>Proseminar II: Practice-Based Research in School and Counselling Psychology (Prerequisite: APD3115H. Exclusion: APD6008H.)</td>
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<tr>
<td>APD3160H</td>
<td>Advanced Family Therapy</td>
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<td>APD3163H</td>
<td>Advanced Multicultural Counselling and Psychotherapy</td>
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<tr>
<td>APD3178H</td>
<td>Advanced Cognitive Behaviour Therapy</td>
</tr>
<tr>
<td>APD3202H</td>
<td>A Foundation of Program Evaluation in Social Sciences (RM) (Prerequisites: MEd students must have completed APD1212H or APD2293H or JOI1287H.)</td>
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<tr>
<td>APD3215H</td>
<td>Advanced Psychotherapy Seminar</td>
</tr>
<tr>
<td>APD3217Y+</td>
<td>Advanced Practicum in Clinical and Counselling Psychology (Credit/No Credit)</td>
</tr>
<tr>
<td>APD3260H</td>
<td>Psychodiagnostic Systems</td>
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</table>
APD3261H+ Clinical Supervision and Consultation Practicum (Pre- or corequisite: APD3217Y+.)
APD3268Y Internship in Clinical and Counselling Psychology
APD3270H0 EdD Internship
APD3271H0 Additional PhD Practicum
APD3401H Assessment with Culturally and Linguistically Diverse Children, Youth, and Families
APD3402H Intervention with Culturally and Linguistically Diverse Children, Youth, and Families
APD3403H0 EdD Internship in School Psychology
APD5000H to APD5050H Special Topics in Applied Psychology and Human Development: Master's Level
APD6000H to APD6016H Special Topics in Applied Psychology and Human Development: Doctoral Level
JOI3228H Mixed Methods Research Design in Social Sciences (RM)
JOI3229H Meta-Analysis for Research in Psychology and Education (RM)
JOI6000H Advanced Quantitative Research Methods Courses

Individual Reading and Research Courses

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>APR2252H</td>
<td>Individual Reading and Research in Human Development and Applied Psychology: Master's Level</td>
</tr>
<tr>
<td>APR2252H</td>
<td>Individual Reading and Research in Human Development and Applied Psychology: Doctoral Level</td>
</tr>
</tbody>
</table>

0 Course that may continue over a program. The course is graded when completed.
+ Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

APHD: Developmental Psychology and Education MA

Master of Arts

Program Description

The Developmental Psychology and Education program offers studies leading to the MA, MEd, and PhD degrees. Students have an opportunity to construct an overall perspective on developmental psychology and human development and their implications for practice with children in educational and other applied settings.

Students take foundation courses in human development and research methodology in consultation with their advisor. Elective courses cover a range of areas including cognitive, social, and emotional development; cognition and instruction (language, literacy, and mathematics); special education and adaptive instruction; developmental neuroscience; advanced research methodology and evaluation; and early childhood policy and programs, including child care. The MA program is designed for students wishing to pursue an academic or research-based career.

Delivery modes: Although not all elective courses are offered in each modality, students may be able to complete the MA degree program through one of two delivery modes:

- in-person (students will mainly complete their coursework and other program requirements in-person, with up to one-third of their coursework online); and
- hybrid (students will experience a mix of modes of engagement, with some of their coursework and other program requirements in-person and between one-third and two-thirds of their coursework online) depending on their choice of elective courses.

Note: students should consult with their faculty advisor and/or graduate liaison officer regarding available options.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development's additional admission requirements stated below.
- An appropriate bachelor's degree with the equivalent of a University of Toronto A– or better. Although most applicants will have a degree in psychology, applicants with an appropriate bachelor's degree in cognitive science, computer science, linguistics, or a helping profession such as occupational therapy, speech-language pathology, physiotherapy, nursing, social work, or another discipline relevant to their specific program of study are also eligible to apply for admission.

Program Requirements

- Coursework. Students must complete 2.0 full-course equivalents (FCEs) as follows:
  - APD1209H Research Methods and Thesis Preparation in Human Development and Applied Psychology (0.5 FCE).
  - JOI1288H Intermediate Statistics and Research Design (RM) (0.5 FCE).
  - Two elective courses (1.0 FCE total) chosen in consultation with the student's advisor, which may include APD2252H Individual Reading and Research (0.5 FCE).
  - Students who have not taken a previous course in human development are required to take APD1201H Child and Adolescent Development (0.5 FCE) or an equivalent.
  - In addition to their required 2.0 FCEs, students who have not taken a previous course in statistics are required to take JOI1287H Introduction to Applied Statistics or an equivalent course.
• Master's thesis.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

APHD: Developmental Psychology and Education MEd

Master of Education

Program Description

The Developmental Psychology and Education program offers studies leading to the MA, MEd, and PhD degrees. Students have an opportunity to construct an overall perspective on developmental psychology and human development and their implications for practice with children in educational and other applied settings. The Master of Education (MEd) program is designed for the reflective teacher or other practitioner in education or in any other field. This is a degree primarily designed for those working in applied settings and it does not include a research thesis.

Students take foundation courses in human development and research methodology. Elective courses cover a range of areas including cognitive, social, and emotional development; cognition and instruction (language, literacy, and mathematics); special education and adaptive instruction; program evaluation and mental health; advanced research methodology and evaluation; and early childhood policy and programs, including child care.

The MEd program can be taken on a full-time or part-time basis.

Delivery options: Although not all elective courses are offered in each modality, students may be able to complete the MEd degree program through one of three delivery modes:

• in-person (students will mainly complete their coursework and other program requirements in-person, with up to one-third of their coursework online);
• hybrid (students will experience a mix of modes of engagement, with some of their coursework and other program requirements in-person and between one-third and two-thirds of their coursework online); and
• online (students will be able to complete all their coursework and other program requirements online) depending on their choice of emphases and elective courses.

Note: students should consult with their faculty advisor and/or graduate liaison officer regarding available options.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department's additional admission requirements stated below.

• Admission to the MEd program normally requires an appropriate bachelor's degree with standing equivalent to a University of Toronto mid-B or better.

• Applicants normally have at least one year of relevant professional experience.

Program Requirements

• Coursework. Students must complete 5.0 full-course equivalents (FCEs) as follows:
  o APD1200H Foundations of Human Development and Education (0.5 FCE).
  o APD2293H Interpretation of Educational Research (0.5 FCE).
  o 2.0 additional FCEs must be selected from the department electives list, available on the departmental website or in the Applied Psychology and Human Development program guidelines.
  o The remaining 2.0 elective FCEs may be taken from within or outside the department. Elective courses must be chosen in consultation with the student's faculty advisor. Students are asked to meet with their faculty advisor in the first session of their program.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F);
10 sessions part-time

Time Limit

3 years full-time;
6 years part-time

APHD: Developmental Psychology and Education MEd; Emphasis: Program Evaluation

Emphasis: Program Evaluation

Program Description

Within the MEd program in Developmental Psychology and Education, the emphasis in Program Evaluation is designed to engage students in an exploration of program evaluation used in education, psychology, and the social sciences. Program evaluation is a systematic analysis of the process, effectiveness, and outcomes of programs whose primary purpose is to assess what components of a program are or are not working, and why.

Students will learn the concepts and theories needed to critically review evaluation designs and how to develop the core components of program evaluation proposals and reports. As such, students will develop the basic competencies needed for program evaluation, including the ability to: critically appraise evaluation research; assess program needs; develop a logic model; evaluate the processes and outcomes of a program; evaluate program efficiency; weigh ethical issues; warrant evaluation claims; and communicate with interested parties.
Furthermore, students will also learn how social, cultural, and political factors impact program evaluation.

Program Requirements

Coursework. Students must successfully complete a total of 1.5 full-course equivalents (FCEs), which are counted towards the total FCEs required for the student's degree program, as follows:

- 1.0 FCE from the Program Evaluation menu and 0.5 FCE from the Research Methods menu, listed below.

- Program Evaluation menu (1.0 FCE from the following, which must include at least one of APD1212H and/or APD3202H):
  - APD1212H Basics to Program Evaluation in Social Sciences.
  - APD1250H Program Evaluation Practicum.
  - APD1292H Instrument Design and Analysis (RM).
  - APD3202H A Foundation of Program Evaluation in Social Sciences (RM).
  - APD3305H Systems and Organizational Change.

- Research Methods menu (0.5 FCE from the following):
  - APD1210H Research Practicum.
  - APD3201H Qualitative Research Methods in Human Development and Applied Psychology (RM).
  - JOI1287H Introduction to Applied Statistics (RM).
  - JOI3043H Development and Use of Surveys in Education Research (RM).
  - JOI3228H Mixed Methods Research Design in Social Sciences (RM).

Upon successful completion of the emphasis requirements and successful completion of the degree requirements, students may make a request to the MEd Developmental Psychology and Education Program Liaison to have the emphasis noted on their transcript. This request must be made before graduation.

APHD: Developmental Psychology and Education PhD

Doctor of Philosophy

Program Description

The Developmental Psychology and Education program offers studies leading to the MA, MEd, and PhD degrees. Students have an opportunity to construct an overall perspective on developmental psychology and human development and their implications for practice with children in educational and other applied settings.

Students take courses in human development and research methodology. Elective courses, chosen in consultation with their advisor, cover a range of areas including cognitive, social, and emotional development; cognition and instruction (language, literacy, and mathematics); special education and adaptive instruction; developmental neuroscience; advanced research methodology and evaluation; and early childhood policy and programs, including child care. The PhD program is designed for students wishing to pursue an academic or research-based career.

The Developmental Psychology and Education program offers both a full-time and a flexible-time PhD program option. Applicants must declare the option for which they are interested in applying. The flexible-time PhD degree program is designed to accommodate demand by practising professionals for a PhD degree that permits continued employment in areas related to their fields of research. Degree requirements for the full-time and flexible-time options are the same.

PhD students have the option of completing an emphasis in Early Learning. Please see details below.

Delivery options: Although not all elective courses are offered in each modality, students may be able to complete the PhD degree program through one of two delivery modes:

- in-person (students will mainly complete their coursework and other program requirements in-person, with up to one-third of their coursework online); and
- hybrid (students will experience a mix of modes of engagement, with some of their coursework and other program requirements in-person and between one-third and two-thirds of their coursework online) depending on their choice of elective courses.

Note: students should consult with their faculty advisor and/or graduate liaison officer regarding available options.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development's additional admission requirements stated below.
- Normally, an appropriate bachelor's degree and a master's degree in developmental psychology and education, cognitive psychology, applied developmental psychology, or child study, with standing equivalent to a University of Toronto A– or better in the master's degree. Applicants with master's degrees in other disciplines such as adult education, anthropology, computer science, curriculum, philosophy, or a profession such as speech-language pathology, nursing, social work, physiotherapy, or occupational therapy may be eligible to apply for admission, but may have to complete additional courses to fulfill master's-level requirements equivalent to the MA in Developmental Psychology and Education. Students who have not completed a master's thesis will be required to submit a Qualifying Research Paper (QRP) prior to final admission to the program.
- Required letters of recommendation and a second academic letter of recommendation.

Program Requirements

- Coursework. Students must complete 2.0 full-course equivalents (FCEs) as follows:
  - APD3200H Research Proseminar in Human Development and Applied Psychology (0.5 FCE).
Analytics for the website's content.
Students wishing to complete the emphasis in Early Learning will include the following courses (2.0 full-course equivalents [FCEs]) in their overall PhD program:

- APD3200H Researching Proseminar in Human Development and Applied Psychology (0.5 FCE).
- APD3273H Researching Early Learning (0.5 FCE): an overview course of quantitative and qualitative methodology which meets the requirements of an intermediate or higher-level statistics course required of all Developmental Psychology and Education students).
- APD1211H Psychological Foundations of Early Development and Education (0.5 FCE).
- APD3274H Early Learning and Thesis Development (0.5 FCE).

APHD: Developmental Psychology and Education MA, MEd, and PhD Courses

Not all courses are offered every year. Please review the course schedule on the Registrar's Office and Student Experience website.

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<tr>
<td>APD1200H</td>
<td>Foundations of Human Development and Education</td>
</tr>
<tr>
<td>APD1201H</td>
<td>Child and Adolescent Development (Prerequisite: at least one of APD1233H or APD1249H, or the instructor's permission.)</td>
</tr>
<tr>
<td>APD1206H</td>
<td>Mind, Brain, and Instruction (Prerequisite: at least one of APD1233H or APD1249H, or the instructor's permission. Exclusion: APD5012H.)</td>
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<td>APD1209H</td>
<td>Research Methods and Thesis Preparation in Human Development and Applied Psychology</td>
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<tr>
<td>APD1210H</td>
<td>Research Practicum (RM)</td>
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<tr>
<td>APD1211H</td>
<td>Psychological Foundations of Early Development and Education</td>
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<tr>
<td>APD1212H</td>
<td>Basics to Program Evaluation in Social Sciences (Exclusion: APD5021H.)</td>
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<tr>
<td>APD1213H</td>
<td>Psychology and Education of Students with ADHD (Prerequisite: at least one of APD1281H, APD1297H, or the instructor's permission. Exclusion: APD5001H.)</td>
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<tr>
<td>APD1217H</td>
<td>Foundations of Proactive Behavioural and Cognitive-Behavioural Intervention in Children (Prerequisite: MEd students must have completed APD1281H, APD1297H, or have the instructor's permission.)</td>
</tr>
<tr>
<td>APD1230H</td>
<td>Well-being and Education (Exclusion: APD5008H.)</td>
</tr>
<tr>
<td>APD1231H</td>
<td>Mindful Self-Compassion for Educators (Exclusion: APD5018H.)</td>
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<tr>
<td>APD1233H</td>
<td>Cognitive Development and Applications</td>
</tr>
<tr>
<td>APD1235H</td>
<td>Technology, Play, and Social Media in Adolescence (Prerequisite: at least one of APD1233H, APD1249H, APD1281H, or the instructor's permission. Exclusion: APD5017H.)</td>
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<tr>
<td>APD1236H</td>
<td>Developmental Psychopathology (Prerequisite: at least one of APD1233H, APD1249H, or the instructor's permission.)</td>
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<tr>
<td>APD1241H</td>
<td>Outcomes of Early Education and Child Care</td>
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<tr>
<td>APD1249H</td>
<td>Social-Emotional Development and Applications</td>
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<tr>
<td>APD1250H</td>
<td>Program Evaluation Practicum (Credit/No Credit) (Prerequisites: APD1212H and APD2293H.)</td>
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<tr>
<td>APD1256H</td>
<td>Child Abuse: Intervention and Prevention</td>
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<td>APD1257H</td>
<td>Child Development and Personal History (Exclusion: APD5010H.)</td>
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<tr>
<td>APD1271H</td>
<td>Perspectives on Executive Functions in Education: From Theory to Practice</td>
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<tr>
<td>APD1272H</td>
<td>Play and Education</td>
</tr>
<tr>
<td>APD1273H</td>
<td>Psychology and Education of Children and Adolescents with Autism Spectrum Disorder (Prerequisite: MEd students must have completed APD1281H, APD1297H, or have the instructor's permission. Exclusion: APD5024H.)</td>
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<tr>
<td>APD1274H</td>
<td>Learning to Learn: Bridging Theory and Practice (Exclusion: APD5020H.)</td>
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<tr>
<td>APD1276H</td>
<td>Maximizing Learning: Understanding How Individuals and Groups Learn Best (Exclusions: APD1274H, APD5020H, APD5034H.)</td>
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<tr>
<td>APD1280H</td>
<td>Symbolic Development and Learning</td>
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<td>APD1281H</td>
<td>Education Exceptionalities, Special Education, and Adaptive Instruction</td>
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<tr>
<td>APD1285H</td>
<td>Psychology and Education of Children and Adolescents with Learning Disabilities (Prerequisite: MEd students must have completed APD1281H or have the instructor's permission.)</td>
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<tr>
<td>APD1286H</td>
<td>Foundations of Literacy Development for School Age Children</td>
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<tr>
<td>APD1290H</td>
<td>Indigenous Studies in Mental Health and Disability Justice</td>
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<tr>
<td>APD1292H</td>
<td>Instrument Design and Analysis (RM)</td>
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<tr>
<td>APD1294H</td>
<td>Technology, Psychology, and Play</td>
</tr>
<tr>
<td>APD1295H</td>
<td>Adolescent Mental Health: An Examination of Risk and Resilience (Prerequisites: MEd students must have completed at least one of APD1249H, APD1252H, APD5008H.)</td>
</tr>
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</table>
APD1281H, APD1297H, or have the instructor's permission.)

APD1296H Assessing School-Aged Language Learners

APD1297H Mental Health in the Classroom: How Educators Can Help Our Most Vulnerable Students

APD1298H Imagination, Reasoning, and Learning

APD2275H Technology for Adaptive Instruction and Special Education

APD2293H Interpretation of Educational Research

APD2296H Reading and Writing Difficulties

APD3200H Research Pro-seminar in Human Development and Applied Psychology

APD3201H Qualitative Research Methods in Human Development and Applied Psychology (RM)

APD3202H A Foundation of Program Evaluation in Social Sciences (RM) (Prerequisite: MEd students must have completed APD1212H, APD2293H, or JOI1287H.)

APD3273H Researching Early Learning: An Overview Course of Quantitative and Qualitative Methodology

APD3274H Early Learning and the Thesis

APD3305H Systems and Organizational Change (Exclusion: APD6006H.)

APD5000H to APD5050H Special Topics in Applied Psychology and Human Development: Master's Level

APD6000H to APD6016H Special Topics in Applied Psychology and Human Development: Doctoral Level

JOI1287H Introduction to Applied Statistics (RM)

JOI1288H Intermediate Statistics and Research Design (RM)

<table>
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<tr>
<td>APD2252H</td>
<td>Individual Reading and Research in Human Development and Applied Psychology: Master's Level</td>
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<tr>
<td>APD3252H</td>
<td>Individual Reading and Research in Human Development and Applied Psychology: Doctoral Level</td>
</tr>
</tbody>
</table>

**APHD: School and Clinical Child Psychology MA**

**Master of Arts**

**Program Description**

The mission of the School and Clinical Child Psychology (SCCP) program is to provide students with theoretical, research, and professional training in preparation for leadership in psychological practice with children, adolescents, and families in school, mental health, private practice, and research settings. The program follows a scientist-practitioner model and is designed to train students to conduct basic and applied research and provide professional training in psychological assessment, therapy, and other psychosocial and instructional interventions, professional consultation, and prevention.

Opportunities are available for research and professional work with infants, young children, adolescents, adults, and families. The degrees are intended to meet the academic requirements of the College of Psychologists of Ontario (CPO) for registration as a Psychological Associate (MA) or Psychologist (PhD).

The curriculum of the SCCP program is designed to establish a strong foundation of core knowledge and skills early in the program, with students free to specialize later on. The program reflects a mix of courses and training opportunities.

A systemic approach is the basis for the training that is provided in assessment and intervention. The knowledge and skills necessary for the practice of school psychology and clinical child psychology overlap considerably, and experience in school and clinical settings complement and enhance each other. Therefore, over the course of the program of study, students are required to undertake practica in both school and clinical child settings.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development's additional admission requirements stated below.
- An appropriate bachelor's degree in psychology, defined as 6.0 full-course equivalents (FCEs) in psychology, including 0.5 FCE in child development and 1.0 FCE in research methods/statistics (of which at least 0.5 FCE must be at the third or fourth-year levels) and at least 3.0 FCEs at the second, third-, or fourth-year levels. The usual admission standard is equivalency to a University of Toronto A– or better.
- Most applicants will have evidence of relevant professional experience and research experience.
- Applicants are requested to submit, in addition to two academic references, a letter of recommendation from an applied setting.

**Program Requirements**

- **Coursework.** Students must complete **5.0 FCEs** (including a practicum course) and a thesis.
Program Description

The mission of the School and Clinical Child Psychology (SCCP) program is to provide students with theoretical, research, and professional training in preparation for leadership in psychological practice with children, adolescents, and families in school, mental health, private practice, and research settings. The program follows a scientist-practitioner model and is designed to train students to conduct basic and applied research and provide professional training in psychological assessment, therapy, and other psychosocial and instructional interventions, professional consultation, and prevention.

Opportunities are available for research and professional work with infants, young children, adolescents, adults, and families. The degrees are intended to meet the academic requirements of the College of Psychologists of Ontario (CPO) for registration as a Psychological Associate (MA) or Psychologist (PhD).

The curriculum of the SCCP program is designed to establish a strong foundation of core knowledge and skills early in the program, with students free to specialize later on. The program reflects a mix of courses and training opportunities.

A systemic approach is the basis for the training that is provided in assessment and intervention. The knowledge and skills necessary for the practice of school psychology and clinical child psychology overlap considerably, and experience in school and clinical settings complement and enhance each other. Therefore, over the course of the program of study, students are required to undertake practica in both school and clinical child settings.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Applied Psychology and Human Development’s additional admission requirements stated below.
- Normally, an appropriate bachelor's degree in psychology or its equivalent and a University of Toronto MA in School and Clinical Child Psychology or its equivalent. The usual admission standard is equivalency to a University of Toronto A– or better in the master's degree. A limited number of outstanding applicants holding equivalent bachelor's and master's degrees in psychology from elsewhere may be considered. However, if the master's program was not equivalent to the University of Toronto MA in School and Clinical Child Psychology, the student will be required to take additional courses to receive equivalent training.
- Cognate course requirements. 1.0 full-course equivalent (FCE) at the senior undergraduate level, or 0.5 FCE at the graduate level, in each of the following cognate areas: Biological Bases of Behaviour, Cognitive/Affective Bases of Behaviour, Social Bases of Behaviour, and History and Systems of Psychology.

Thesis.

A listing of approved Cognitive/Affective, Social, and Biological bases of behaviour courses is available from the department and in the Applied Psychology and Human Development program guidelines.

In addition to the above course requirements, students who have not taken a previous child development course in their undergraduate degree program will be required to take APD1201H Childhood and Adolescent Development.

Students who have not taken a previous statistics course or its equivalent must take JOI1287H Introduction to Applied Statistics (RM).

Students must achieve a minimum of A– in at least one of APD1215H Psychological Assessment of School-Aged Children and APD1216H Psychoeducational Assessment, and must complete APD1218H Seminar and Practicum in School-Based Assessment, Consultation, and Intervention in order to remain in good standing and be permitted to continue in the program.

Failure to meet these criteria will normally result in a recommendation to the School of Graduate Studies to terminate the student's registration in the program.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time
Program Requirements

- Students must complete 5.5 FCEs, including a doctoral practicum course and an internship course, as follows:
  - APD3202H A Foundation of Program Evaluation in Social Sciences (RM) (0.5 FCE).
  - APD3222H Approaches to Psychotherapy with Children, Youth, and Families (0.5 FCE), normally taken in Year 1.
  - APD3241H+ Seminar and Practicum in Clinical Assessment and Intervention, normally taken in Year 2. The practicum portion of APD3241H+ consists of 500 hours (two days a week from September to June) and is normally taken in a clinical setting. Students must complete APD3241H+ in order to remain in good standing and be permitted to continue in the program.
  - APD3260H Psychodiagnostic Systems (0.5 FCE).
  - APD5284Y+ Assessment and Intervention with Culturally and Linguistically Diverse Children, Youth, and Families (1.0 FCE).
  - 0.5 FCE from the Psychosocial Interventions course menu:
    - APD3224H Advanced Proactive Behavioural and Cognitive-Behavioural Interventions* or APD3231H Psychodynamic Bases of Therapy*.
  * Note: the course is offered every other year. Students interested in other courses that may fulfill the Psychosocial Interventions requirement must receive approval from the SCCP Program Coordinator.
  - 0.5 elective FCE.
  - APD3240H+ Advanced Social and Emotional Assessment Techniques (0.5 FCE).
  - APD3242Y Internship in School and Clinical Child Psychology (1.0 FCE). The internship consists of a 1,600-hour placement, normally taken on a full-time basis over the course of a year in the final year of the student's program.

- A comprehensive examination. The purpose of the SCCP comprehensive examination is:
  - Ensure an adequate level of psychological knowledge for professional functioning as a practitioner, academic, and/or researcher.
  - Demonstrate an ability to integrate information at the accepted standard for a doctoral student.
- A doctoral dissertation.
- Students must have successfully completed all coursework, passed the comprehensive examination, and have their dissertation completed or well underway, prior to commencing their internship.
- For each missing cognate course requirement (see Cognitive/Affective, Social, or Biological Bases of Behaviour; Admission Requirements above), students are required to take a 0.5 FCE course from the applicable course menu. A listing of approved Cognitive/Affective, Social, or Biological Bases of Behaviour courses is available from the department and in the Applied Psychology and Human Development program guidelines. Students may use their elective course to cover one of these requirements.
- In addition to the above course requirements, students who have not taken a previous child development course must take APD1201H Childhood and Adolescent Development. Students who have not taken a previous statistics course or its equivalent must take JOI1287H Introduction to Applied Statistics (RM).
- Students must complete APD3241H+ Seminar and Practicum in Clinical Assessment and Intervention in order to remain in good standing and be permitted to continue in the program.
- Students who are required to take APD1215H, APD1216H, and APD1218H in addition to other courses in the PhD

Program Length

5 years full-time

Time Limit

6 years full-time

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

APHD: School and Clinical Child Psychology MA and PhD Courses

Not all courses are offered every year. Please review the course schedule on the Registrar’s Office and Student Experience website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APD1205H</td>
<td>Ethical Issues in Applied Psychology</td>
</tr>
<tr>
<td>APD1207H</td>
<td>Counselling Topics in Sexual Orientation and Gender Identity Diversity</td>
</tr>
<tr>
<td>APD1215H</td>
<td>Psychological Assessment of School-Aged Children</td>
</tr>
<tr>
<td>APD1216H</td>
<td>Psychoeducational Assessment</td>
</tr>
<tr>
<td>APD1217H</td>
<td>Foundations of Proactive Behavioural and Cognitive-Behavioural Intervention in Children</td>
</tr>
<tr>
<td>APD1218H</td>
<td>Seminar and Practicum in School-Based Assessment, Consultation, and Intervention</td>
</tr>
<tr>
<td>APD1222H</td>
<td>Approaches to Psychotherapy-Lifespan</td>
</tr>
<tr>
<td>APD1228H</td>
<td>Couples Counselling</td>
</tr>
<tr>
<td>APD1233H</td>
<td>Cognitive Development and Applications</td>
</tr>
<tr>
<td>APD1236H</td>
<td>Developmental Psychopathology</td>
</tr>
<tr>
<td>APD1245H</td>
<td>Brief Strategies in Counselling and Psychotherapy</td>
</tr>
<tr>
<td>APD1251H</td>
<td>Reading in a Second Language</td>
</tr>
<tr>
<td>APD1256H</td>
<td>Child Abuse: Intervention and Prevention</td>
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</table>
### Individual Reading and Research Courses

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<th>Course Title</th>
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<tr>
<td>APD2252H</td>
<td>Individual Reading and Research in Human Development and Applied Psychology: Master's Level</td>
</tr>
<tr>
<td>APD3252H</td>
<td>Individual Reading and Research in Human Development and Applied Psychology: Doctoral Level</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Architecture, Landscape, and Design

Architecture, Landscape, and Design: Introduction

Faculty Affiliation

Architecture, Landscape, and Design

Degree Programs

Architecture

MArch

Architecture, Landscape, and Design

PhD

Landscape Architecture

MLA

Urban Design

MUD

Visual Studies

MVS

• Fields:
  o Curatorial Studies;
  o Studio

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

• Environmental Studies
  o Architecture, Landscape, and Design, PhD
  o Landscape Architecture, MLA

• Environment and Health
  o Architecture, Landscape, and Design, PhD
  o Landscape Architecture, MLA

• Knowledge Media Design
  o Architecture, MArch
  o Landscape Architecture, MLA
  o Urban Design, MUD

• Sexual Diversity Studies
  o Visual Studies, MVS

Overview

The Faculty of Architecture, Landscape, and Design offers professional graduate programs in areas characterized by exceptional change. Globalization and the convergence of new media, new materials, and new building technologies have led to significant economic, technological, and aesthetic shifts. As a leading school of architecture, landscape, forestry, and design in North America, the Faculty is responding to these changing realities.

The greater Toronto region serves as a dynamic laboratory for critical studies and the exploration of design alternatives of international significance. Students also have access to Toronto’s large professional design community. Students and faculty are incredibly cosmopolitan in sensibility, hailing from every part of the world, with their work crossing geographic and cultural boundaries. The city’s multicultural networks and international connections make the Faculty a powerful place to start a career.

The Faculty has grown exceptionally in recent years with the hiring of new faculty and the revamping of its master’s programs. With architecture, landscape architecture, forestry, urban design, and visual studies sharing facilities, the Faculty benefits from rich collaborations and crossover between related disciplines.

The growth has led to the recent construction of a new building which doubles the Faculty’s size and creates a new and unprecedented centre at the University of Toronto for education, research, and public outreach on architecture, urbanism, visual arts, landscape, and conservation.

Contact and Address

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Email: graduate@daniels.utoronto.ca
PhD program: research@daniels.utoronto.ca
Telephone: (416) 946-3897

John H. Daniels Faculty of Architecture, Landscape, and Design
University of Toronto
1 Spadina Crescent
Toronto, Ontario M5S 2J5
Canada

Architecture, Landscape, and Design: Graduate Faculty

Full Members

Anderson, Christy - BA, MA, PhD
Chaouni, Aziza - BScCE, MArch
Chung, Daniel Haeyoung - BA, MArch, PhD
Clarke, Joseph - PhD, PhD
Du, Juan - MArch, DSc (Dean)
Farhat, Georges - MArch, PhD
Harwood, John - PhD
Kesik, Ted - BASc, MASC, DPhil
Levit, Robert - BA, MArch
Liu, An Te - BA, MArch
Lloyd, Sue - BA, MFA
Lobsinger, Mary Lou - BArch, BES, BA, MES, PhD
Margolis, Liat - BFA, MLA
McCarney, Patricia - BA, MCP, PhD
Nguyen, Jason - BArch, MA, PhD
North, Alissa - BLA, MLA
Sealy, Peter - BSc, BArch, MArch, PhD
Shim, Brigitte - BES, BArch
Sommer, Richard - BFA, BArch, MArch
Stankievech, Charles - BA, MFA
Architecture, Landscape, and Design: Architecture MArch

Master of Architecture

Program Description

The Master of Architecture (MArch) is a professional degree program and provides a thorough base of knowledge in history, theory, technology, ecology, society, and professional practice, while developing skills in design through an intensive sequence of design studio courses. These are supported by courses in visual communication and architectural representation including computer modelling and other new media. The program aims to develop critical, creative, and independent thinking and research that responds to current design issues and societal changes. The greater Toronto region is used as an urban laboratory for the development of new knowledge and forms of practice.

In Canada, the Canadian Architectural Certification Board (CACB) is the sole agency authorized by the Canadian Architectural Licensing Authorities (CALA) to accredit Canadian professional degree programs in architecture for the purposes of architectural licensure.

MArch Program (3-Year Option)

The 3-year option within the MArch program is accredited by the Canadian Architectural Certification Board. Graduates are eligible to begin the process of professional licensure to become an Architect in North America. The qualification is also transferable to many other countries and regions; students are advised to inquire with their local licensing body.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- A bachelor's degree (BA, BSc, BArch, MA, MFA, BCom) with a final-year grade point average of at least mid-B.
- Recommended: courses in secondary calculus, secondary physics, and university-level architectural history (0.5 full-course equivalent [FCE]).
- Some preparation or experience in architectural design or the creative arts is encouraged, but not required, such as hand or digital drawing, film or animation, graphic design, or sculpture. This program is suitable for those without formal training in design or the arts; graduates of any discipline are encouraged to apply.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

- The course of study is a rigorous full-time, comprehensive program and prepares graduates for the full range of professional activities in architecture. The core program is extensive, and students are required to use their electives to develop an area of special skill and knowledge through an independent study program that culminates in a design thesis.
- Students study full-time, taking all required courses in each given session. An FZ (fail) in any one course, or a B– grade in two studio courses or in any three courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.
- There is no additional language requirement other than proficiency in English on admission. Writing support is integrated into the program to develop specialized skills that are essential to effective learning and communication in the design fields.
- Progress in the program is dependent upon satisfactory completion of studio and required core courses in sequence. Exceptions can be made at the discretion of the Program Director, and in consultation with the Office of the Registrar and Student Services in the case of accessibility.
- Students who complete their Master of Architecture program and are eligible to graduate will have their relevant information automatically forwarded by the John H. Daniels Faculty of Architecture, Landscape, and Design to the Canadian Architectural Certification Board (CACB), unless the student opts out in writing. The certification confirms the individual's academic qualifications in compliance with the Canadian Education Standard (CES) in Architecture for entry to the profession.
Standing Option

• Minimum Admission Requirements
  o Advised to inquire with their local licensing body.
  o Transferable to many other countries and regions; students are eligible to begin the process of professional licensure to become an Architect in North America. The qualification is also Canadian Architectural Certification Board. Graduates are
  o The 2-year option within the MArch program is accredited by the Canadian Architectural Certification Board.
  o Coursework. Students must complete a total of 16.0 full-course equivalents (FCEs) as follows:
    o 14.0 FCEs in core courses:
      ▪ 4.0 FCEs: Design Studio
      ▪ 1.0 FCE: Design Studio Research
      ▪ 1.0 FCE: Design Studio Thesis
      ▪ 1.0 FCE: Research Methods
      ▪ 0.5 FCE: Visual Communication
      ▪ 1.0 FCE: History
      ▪ 1.0 FCE: Design Technology
      ▪ 3.5 FCEs: Technics and Planning
      ▪ 1.0 FCE: Professional Practice
  o 2.0 elective FCEs, of which 0.5 FCE must be in the History and Theory category.

Program Length

6 sessions full-time (typical registration sequence: F/W/F/W/F/W)

Time Limit

4 years full-time

MArch Program (2-Year: Second-Year Advanced-Standing Option)

The 2-year option within the MArch program is accredited by the Canadian Architectural Certification Board. Graduates are eligible to begin the process of professional licensure to become an Architect in North America. The qualification is also transferable to many other countries and regions; students are advised to inquire with their local licensing body.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
  o An appropriate non-professional bachelor's degree in architectural studies or environmental design, or a comparable degree focusing on the built environment.
  o Admission to the advanced-standing option is based on the merits of the student's overall academic background and strength of design portfolio as evaluated by the MArch admissions committee.
  o Required: minimum previous completion of four design studio courses one course in visual communications or representation one course in design technology two courses in architecture history and theory (one in 20th-century) one course in structures one course in building science one course in environmental systems.
  o Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

• The course of study is a rigorous full-time, comprehensive program and prepares graduates for the full range of professional activities in architecture. The core program is extensive, and students are required to use their electives to develop an area of special skill and knowledge through an independent study program that culminates in a design thesis.
  o Students study full-time, taking all required courses in each given session. An FZ (fail) in any one course, or a B– grade in two studio courses or in any three courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.
  o There is no additional language requirement other than proficiency in English on admission. Writing support is integrated into the program to develop specialized skills that are essential to effective learning and communication in the design fields.
  o Progress in the program is dependent upon satisfactory completion of studio and required core courses in sequence. Exceptions can be made at the discretion of the Program Director, and in consultation with the Office of the Registrar and Student Services in the case of accessibility.
  o Students who complete their Master of Architecture program and are eligible to graduate will have their relevant information automatically forwarded by the John H. Daniels Faculty of Architecture, Landscape, and Design to the Canadian Architectural Certification Board (CACB), unless the student opts out in writing. The certification confirms the individual's academic qualifications in compliance with the Canadian Education Standard (CES) in Architecture for entry to the profession. CACB grants and issues certification to applicants who meet the Education Standard and maintains a National Register of those certified and confidential records of all pertinent documentation for all applicants.
  o Coursework. Students must complete a total of 10.5 full-course equivalents (FCEs) as follows:
    o 8.0 FCEs in core courses:
      ▪ 2.0 FCEs: Design Studio
      ▪ 2.0 FCEs: Design Studio Research
      ▪ 0.5 FCE: Research Methods
      ▪ 0.5 FCE: Design Technology
      ▪ 2.0 FCEs: Technics and Planning
      ▪ 1.0 FCE: Professional Practice
    o 2.5 elective FCEs, of which 0.5 FCE must be in the History and Theory category.

Program Length

4 sessions full-time (typical registration sequence: F/W/F/W)

Time Limit

4 years full-time
MArch Program (1-Year: Post-Professional Advanced-Standing Option)

The 1-year option within the MArch program is ideal for those who wish to undertake a graduate-level, academic research project, and independent of the pathway to professional licensure. Those who wish to become a licensed Architect should consider the 2- or 3-year program options above.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- A post-professional advanced-standing option is available for students who are interested in pursuing advanced studies in architecture beyond their professional degree.
- Applicants must have completed all requirements for an accredited architectural professional degree from a recognized university.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- The post-professional advanced-standing option does not grant a professionally accredited degree.

Program Requirements

- The course of study is a rigorous full-time, comprehensive program and prepares graduates for the full range of professional activities in architecture. The core program is extensive, and students are required to use their electives to develop an area of special skill and knowledge through an independent study program that culminates in a design thesis.
- Students study full-time, taking all required courses in each given session. An FZ (fail) in any one course, or a B– grade in two studio courses or in any three courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.
- There is no additional language requirement other than proficiency in English on admission. Writing support is integrated into the program to develop specialized skills that are essential to effective learning and communication in the design fields.
- Progress in the program is dependent upon satisfactory completion of studio and required core courses in sequence. Exceptions can be made at the discretion of the Program Director, and in consultation with the Office of the Registrar and Student Services in the case of accessibility.
- Each student’s program of study must receive the approval of the Program Director and, in general, shall consist of a research or design project on which a thesis must be submitted. Faculty members have research expertise in the following areas of interest, which students may pursue: Computation and Fabrication; Health and Society; and Sustainability and Environment.
- Coursework. Students must complete a total of 6.0 full-course equivalents (FCEs) as follows:
  - 4.0 FCEs in core courses:
    - 0.5 FCE: ALA4010H Field Course

Program Length

2 sessions full-time (typical registration sequence: F/W)

Time Limit

3 years full-time

Architecture, Landscape, and Design: Architecture MArch Courses

Not all electives are offered every year. Please check the timetable for current listings available.

Core Courses

Design Studio

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARC1011Y</td>
<td>Design Studio 1</td>
</tr>
<tr>
<td>ARC1012Y</td>
<td>Design Studio 2</td>
</tr>
<tr>
<td>ARC2013Y</td>
<td>Design Studio 3</td>
</tr>
<tr>
<td>ARC2014Y</td>
<td>Design Studio 4</td>
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Design Studio Research

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>or LAN3016Y</td>
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<tr>
<td>or URD2013Y</td>
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Design Studio Thesis

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARC3021Y</td>
<td>Design Studio Thesis (prerequisite: ARC3020Y; exclusion: ARC4018Y)</td>
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### Design Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARC1022H</td>
<td>Design Technology 1</td>
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<tr>
<td>ARC2023H</td>
<td>Design Technology 2</td>
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### History

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<th>Course Title</th>
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<tbody>
<tr>
<td>ARC1031H</td>
<td>Historical Perspectives on Topics in Architecture 1</td>
</tr>
<tr>
<td>ARC1032H</td>
<td>Historical Perspectives on Topics in Architecture 2</td>
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### Post Professional

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ALA4010H</td>
<td>Field Course</td>
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<tr>
<td>ALA4020H</td>
<td>Thesis Preparation (corequisite: ALA4010H)</td>
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<tr>
<td>ALA4021Y</td>
<td>Thesis I (prerequisite: ALA4020H)</td>
</tr>
<tr>
<td>ALA4022Y</td>
<td>Thesis II (prerequisite: ALA4021Y)</td>
</tr>
<tr>
<td>ALA4030H</td>
<td>Colloquium (prerequisites: ALA4010H and ALA4020H; exclusion: ALD4030H)</td>
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### Professional Practice

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<tbody>
<tr>
<td>ARC3051H</td>
<td>Professional Practice 1</td>
</tr>
<tr>
<td>ARC3052H</td>
<td>Professional Practice 2</td>
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### Research Methods

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<th>Course Title</th>
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<tbody>
<tr>
<td>ARC2017H</td>
<td>Research Methods</td>
</tr>
<tr>
<td>ARC3018H</td>
<td>Thesis Seminar (prerequisite: ARC2017H)</td>
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### Technics and Planning

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<tbody>
<tr>
<td>ARC1041H</td>
<td>Building Science 1</td>
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### Visual Communication

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<tbody>
<tr>
<td>ARC1021H</td>
<td>Visual Communications</td>
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### Elective Courses

#### Architecture and Health

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<tbody>
<tr>
<td>ARC3600H</td>
<td>Selected Topics in the History and Theory of Architecture and Health to ARC3625H</td>
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#### Computer Modelling

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<td>Selected Topics in Advanced Computer Applications to ARC3225H</td>
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#### Design

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<td>ARC1100H</td>
<td>Selected Topics in Design</td>
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<tr>
<td>ARC2015H</td>
<td>Global Architecture: Urban Analysis and Documentation</td>
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<tr>
<td>ARC2016H</td>
<td>Global Design Studio</td>
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#### History and Theory

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<tbody>
<tr>
<td>ARC3038H</td>
<td>Global Architecture: History and Theory</td>
</tr>
</tbody>
</table>
The PhD program in Architecture, Landscape, and Design engages students in advanced research from an interdisciplinary approach to architecture, landscape, and urban design. The program addresses cultural, social, environmental, historical, and technological questions of the art and design disciplines and the built environment. The program is intended for students entering careers that demand a syncretic approach to research in design and related disciplines.

This full-time program normally begins in September.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- An appropriate master's degree with an average grade of at least A–. A professional degree in a design discipline is highly desirable, but applicants with a master's degree in a related discipline in the humanities and social sciences may be considered. An additional specialized program of study may be proposed for successful applicants without professional training.
- A writing sample in the form of a substantial research paper or publication.
- Recommendation from three referees.
- A two-page proposal that indicates a topic of research within a design discipline, possible sub-field(s) (if desired), and potential supervisors. Although letters of commitment from faculty members are not required, the proposed topic must be congruent with the interests and expertise of at least one member of the PhD standing committee. The admissions committee will obtain commitment from the potential supervisor before admitting an applicant, and the applicant will be informed of this in the letter of offer.
- A portfolio of creative work may also be requested where it is relevant to the applicant's proposed area of research and the degree to which it may require technical skills typically gained in a professional degree program. For example, this could pertain to an applicant whose proposal includes producing renderings. Questions about whether to include a portfolio in an application should be directed to the Program Director or the applicant's prospective supervisor prior to the application deadline.

Program Requirements

- **Coursework.** Students must complete a total of 6.0 full-course equivalents (FCEs) including:
  - ALD4030H Doctoral Research Colloquium (0.5 FCE).
  - ALD4040H Theories and Methods (0.5 FCE).
  - ALD4050H Research Practicum (0.5 FCE; Credit/No Credit).
  - ALD4060H Preparation for Thesis (0.5 FCE; Credit/No Credit).
  - 4.0 elective FCEs chosen from advanced (3000 and 4000 series) graduate-level courses offered by the John H. Daniels Faculty of Architecture, Landscape, and Design. Depending on their field of study, students may also take advanced graduate courses in cognate disciplines across the University, pending the approval of the Faculty and in consultation with their supervisors.
  - To complete the chosen thesis topic, students may be required to take additional courses or acquire other skills.
This will be determined by the supervisor and the Director of Graduate Studies and may include competence in another language.

- **Comprehensive examinations.** All PhD students must complete a two-part comprehensive examination normally before their second Summer session. Successful completion of the examinations is required to achieve PhD candidacy. The exam's specific nature and scope are to be determined in consultation with the student's supervisor.
  - The first part, normally to be completed in the Summer session of Year 1, is to achieve breadth in the primary area of study so that the student can teach and conduct research within a larger chosen area within the design disciplines. This will usually involve preparing an annotated bibliography in consultation with the supervisor in the early Summer and writing the exam at the end of the Summer. The first part of the exam will consist of a written response to three questions.
  - The second part, normally to be completed during the second session of Year 2, is to achieve depth in a secondary area of study, within the Faculty or beyond, so that the student can master the context for the advanced research they plan to undertake for their thesis. For the secondary area of study, most students are expected to specialize in one area of study of the design disciplines (for example, architectural history). Alternatively, for this requirement students may focus on a secondary area of study. (For example, computational technologies.) This exam may be administered by a faculty member other than the supervisor, to be determined by the student in consultation with their supervisor. This second part can take one of two formats:
    - a second annotated bibliography to achieve depth in a sub-section of the primary area of study;
    - a course syllabus with readings and outlines of lectures, themes for tutorial discussions, as well as a minimum of three lectures drawn from across the syllabus.
  - Both parts of the examination are marked on a pass/fail basis. An oral examination will follow the completion of the second part of the exam. The oral examination will last no more than 90 minutes.
  - A second attempt of the comprehensive examinations will be allowed within six months, only on the recommendation of the student’s supervisor. If the student fails again, their registration will be terminated. The student must pass both parts of the comprehensive examinations before permission to submit a thesis proposal will be granted.

- **Thesis.** Following completion of the comprehensive exam, the student’s supervisory committee will be formed. This will take place no later than the Summer of Year 2 to allow the committee to advise on the development of the student’s thesis proposal.
  - No later than the beginning of Year 3, the student must submit to the PhD program director a thesis proposal that has been approved by the student’s supervisory committee. Once the thesis proposal has been approved, the student will achieve candidacy.
  - The doctoral candidate will then proceed to researching and writing the thesis. The student must meet with their thesis supervisory committee within three months of submitting the thesis proposal; thereafter, the candidate is required to meet at least once a year with the supervisory committee.
  - By the end of Year 4, the candidate should complete a thesis based on original research and the thesis should make a significant contribution to the area of study. The supervisory committee must approve the completed thesis before it is submitted for examination.
  - The candidate will defend the thesis at the Doctoral Final Oral Examination.

**Program Length**

4 years full-time

**Time Limit**

6 years full-time

**Architecture, Landscape, and Design: Architecture, Landscape, and Design PhD Courses**

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ALD4030H</td>
<td>Doctoral Research Colloquium</td>
</tr>
<tr>
<td>ALD4040H</td>
<td>Theories and Methods</td>
</tr>
<tr>
<td>ALD4050H</td>
<td>Research Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>ALD4060H</td>
<td>Preparation for Thesis (Credit/No Credit)</td>
</tr>
</tbody>
</table>

**Elective Courses**

Not all electives are offered every year. Please check the timetable for current listings available from the Summer session. Electives are to be selected from advanced (3000 and 4000 series) graduate-level courses offered at the Daniels or other Faculties. These include the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALD4090H</td>
<td>Directed Reading in Design (Credit/No Credit)</td>
</tr>
<tr>
<td>ALD4100H to ALD4125H</td>
<td>Advanced Topics in Architecture, Landscape, and Design (corequisite: ALD4030H or permission of the instructor)</td>
</tr>
<tr>
<td>ARC2016H</td>
<td>Global Design Studio</td>
</tr>
<tr>
<td>ARC2090H</td>
<td>Studies Abroad</td>
</tr>
<tr>
<td>ARC2095H</td>
<td>Design Build</td>
</tr>
<tr>
<td>ARC3101H to ARC3105H</td>
<td>Selected Topics in Urban Design</td>
</tr>
<tr>
<td>ARC3200H to ARC3206H</td>
<td>Selected Topics in Advanced Computer Applications</td>
</tr>
</tbody>
</table>
Architecture, Landscape, and Design: Landscape Architecture MLA

Master of Landscape Architecture

Program Description

The Master of Landscape Architecture (MLA) is a professional program that focuses on urban and regional landscape architecture within a studio-based curriculum. Integrated courses in design; visual communication and modelling; history, theory, and criticism; site engineering and material technologies; horticulture, ecology, hydrology; professional practice and research methods seminars, as well as options for electives, provide a comprehensive professional education in landscape architecture. The program prepares students with a strong base in the fundamentals of the profession, while fostering innovative thinkers able to work collaboratively with allied disciplines, in preparation for becoming the next generation of leaders in landscape architecture.

MLA Program (3-Year Option)

The 3-year option within the MLA program is accredited by the Landscape Architecture Accreditation Council. Graduates are eligible to begin the process of professional licensure to become a Landscape Architect in North America. The qualification is also transferable to many other countries and regions; students are advised to inquire with their local licensing body.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- A bachelor's degree (such as BA, BSc, BASc, BES, BFA, BCom) with a minimum average of mid-B.
- Some preparation or experience in architectural design or the creative arts is encouraged, but not required, such as hand or digital drawing, film or animation, graphic design, or sculpture. This program is suitable for those without formal training in design or the arts; graduates of any discipline are encouraged to apply.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

- Students study full-time, taking all required courses in each given session. An FZ (fail) in any one course, or a B– grade in two studio courses or in any three courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.
- There is no additional language requirement other than proficiency in English on admission. Writing support is integrated into the program to develop specialized skills that are essential to effective learning and communication in the design fields.
- Progress in the program is dependent upon satisfactory completion of studio and required core courses in sequence. Exceptions can be made at the discretion of the Program Director, and in consultation with the Office of the Registrar and Student Services in the case of accessibility.
- Coursework. Students must complete a total of 15.5 full-course equivalents (FCEs) as follows:
  o 14.5 FCEs in core courses:
    ▪ 4.0 FCEs: Design Studio
    ▪ 1.0 FCE: Design Studio Options
    ▪ 1.5 FCEs: Design Studio Thesis
    ▪ 2.0 FCEs: Visual Communication
    ▪ 2.0 FCEs: History, Theory, Criticism
    ▪ 1.5 FCEs: Technology
    ▪ 1.5 FCEs: Environment
    ▪ 1.0 FCE: Professional Practice and Research Methods
  o 1.0 elective FCE.

Program Length

6 sessions full-time (typical registration sequence: F/W/F/W/F/W)

Time Limit

3 years full-time

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC3300H to ARC3325H</td>
<td>Selected Topics in Architectural History and Theory</td>
</tr>
<tr>
<td>ARC3400H; ARC3402H to ARC3409H</td>
<td>Selected Topics in Architecture and Technology</td>
</tr>
<tr>
<td>ARC3500H to ARC3502H</td>
<td>Selected Topics in Sustainable Design</td>
</tr>
<tr>
<td>ARC3600H</td>
<td>Selected Topics in the History and Theory of Architecture and Health</td>
</tr>
<tr>
<td>ARC3700H to ARC3725H</td>
<td>Selected Topics in Architecture</td>
</tr>
<tr>
<td>ARC4500H to ARC4510H</td>
<td>Selected Topics in Professional Practice</td>
</tr>
<tr>
<td>LAN3900H to LAN3910H</td>
<td>Landscape Architecture Topics: History, Theory, Criticism</td>
</tr>
<tr>
<td>VIS3001H</td>
<td>Advanced Readings in Visual Studies</td>
</tr>
<tr>
<td>VIS3002H</td>
<td>Advanced Readings in Curatorial Studies</td>
</tr>
<tr>
<td>VIS3003H</td>
<td>Special Topics in Art and Culture</td>
</tr>
</tbody>
</table>
MLA Program (2-Year: Second-Year Advanced-Standing Option)

The 2-year option within the MLA program is accredited by the Landscape Architecture Accreditation Council. Graduates are eligible to begin the process of professional licensure to become a Landscape Architect in North America. The qualification is also transferable to many other countries and regions; students are advised to inquire with their local licensing body.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- An appropriate bachelor's degree in landscape architecture, architecture, architectural studies, or environmental design, or a comparable degree focusing on the design of landscapes and the built environment.
- Admission is based on the merits of the applicant's overall academic background and strength of design portfolio as evaluated by the admissions committee.
- Admission to the advanced-standing option depends upon the student's previous coursework exempting them Year 1 of the MLA curriculum. If the student's coursework does not satisfy the Year 1 requirements, they may be considered for the 3-year option.
- Minimum previous completion of three design studio courses, two courses in digital visual representation (including Rhinoceros, Illustrator, Laser Cutting), two courses in landscape architecture history and theory (one in 20th-century), and two courses in landscape architecture site engineering (i.e., site grading) and planting design, horticulture, urban ecology, or forest ecology.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

- Students study full-time, taking all required courses in each given session. An FZ (fail) in any one course, or a B– grade in two studio courses or in any three courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.
- There is no additional language requirement other than proficiency in English on admission. Writing support is integrated into the program to develop specialized skills that are essential to effective learning and communication in the design fields.
- Progress in the program is dependent upon satisfactory completion of studio and required core courses in sequence. Exceptions can be made at the discretion of the Program Director, and in consultation with the Office of the Registrar and Student Services in the case of accessibility.
- Coursework. Students must complete a total of 10.5 full-course equivalents (FCEs) as follows:
  - 9.5 FCEs in core courses as follows:
    - 2.0 FCEs: Design Studio
    - 1.0 FCE: Design Studio Options
    - 1.5 FCEs: Design Studio Thesis
  - 1.0 FCE: Visual Communication
  - 0.5 FCE: History, Theory, Criticism
  - 1.0 FCE: Technology
  - 1.5 FCEs: Environment
  - 1.0 FCE: Professional Practice and Research Methods
    - 1.0 elective FCE.

Program Length

4 sessions full-time (typical registration sequence: F/W/F/W)

Time Limit

3 years full-time

MLA Program (1-Year: Post-Professional Advanced-Standing Option)

The 1-year option within the MLA program is ideal for those who wish to undertake a graduate-level, academic research project, independent of the pathway to professional licensure. Those who wish to become a licensed Landscape Architect should consider the 2- or 3-year program options above.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- A post-professional advanced-standing option is available for students who are interested in pursuing advanced study beyond their professional degree.
- Applicants must have completed all requirements for an accredited professional degree in landscape from a recognized university.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- The post-professional advanced-standing option does not grant a professionally accredited degree.

Program Requirements

- Students study full-time, taking all required courses in each given session. An FZ (fail) in any one course, or a B– grade in two studio courses or in any three courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.
- There is no additional language requirement other than proficiency in English on admission. Writing support is integrated into the program to develop specialized skills that are essential to effective learning and communication in the design fields.
- Progress in the program is dependent upon satisfactory completion of studio and required core courses in sequence. Exceptions can be made at the discretion of the Program Director, and in consultation with the Office of the Registrar and Student Services in the case of accessibility.
- Coursework. Students must complete a total of 10.5 full-course equivalents (FCEs) as follows:
  - 9.5 FCEs in core courses as follows:
    - 2.0 FCEs: Design Studio
    - 1.0 FCE: Design Studio Options
    - 1.5 FCEs: Design Studio Thesis
  - 1.0 FCE: Visual Communication
  - 0.5 FCE: History, Theory, Criticism
  - 1.0 FCE: Technology
  - 1.5 FCEs: Environment
  - 1.0 FCE: Professional Practice and Research Methods
    - 1.0 elective FCE.
Each student’s program of study must receive the approval of the Program Director and, in general, shall consist of a research or design project on which a thesis must be submitted. Faculty members have research expertise in the following areas of interest, which students may pursue: Computation and Fabrication; Health and Society; and Sustainability and Environment.

Coursework. Students must complete a total of 6.0 full-course equivalents (FCEs) as follows:

- 4.0 FCEs in core courses:
  - 0.5 FCE: ALA4010H Field Course
  - 0.5 FCE: ALA4020H Thesis Preparation
  - 1.0 FCE: ALA4021Y Thesis I
  - 1.5 FCE: ALA4022Y Thesis II
  - 0.5 FCE: ALA4030H Colloquium

- 2.0 elective FCEs, of which 1.0 FCE must be in the student’s area of interest.

Program Length

2 sessions full-time (typical registration sequence: F/W)

Time Limit

3 years full-time

Architecture, Landscape, and Design: Landscape Architecture MLA Courses

Not all electives are offered every year. Please check the timetable for current listings available.

Core Courses

Design Studio

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN1011Y</td>
<td>Design Studio 1</td>
</tr>
<tr>
<td>LAN1012Y</td>
<td>Design Studio 2</td>
</tr>
<tr>
<td>LAN2013Y</td>
<td>Design Studio 3 (prerequisite: LAN1012Y)</td>
</tr>
<tr>
<td>LAN2014Y</td>
<td>Design Studio 4</td>
</tr>
<tr>
<td>LAN3016Y</td>
<td>Landscape Design Studio Research</td>
</tr>
<tr>
<td></td>
<td>( exclusions: ARC3020Y, URD2013Y )</td>
</tr>
<tr>
<td>or</td>
<td>Urban Design Studio Research (prerequisites: URD1011Y, URD1012Y; exclusions: ARC3015Y, LAN3016Y)</td>
</tr>
<tr>
<td>or</td>
<td>Design Studio Research (prerequisite: ARC2014Y; exclusions: ARC3016Y, LAN3016Y, URD2013Y)</td>
</tr>
<tr>
<td>ARC3020Y</td>
<td></td>
</tr>
<tr>
<td>LAN3017Y</td>
<td>Design Studio Thesis</td>
</tr>
</tbody>
</table>

Environment

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN1041H</td>
<td>Field Studies 1</td>
</tr>
<tr>
<td>LAN1043H</td>
<td>Field Studies 2</td>
</tr>
<tr>
<td>LAN2045H</td>
<td>Landscape Ecology</td>
</tr>
<tr>
<td>LAN2047H</td>
<td>Landscape Hydrology</td>
</tr>
</tbody>
</table>

History, Theory, Criticism

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN1031H</td>
<td>History, Theory, Criticism 1</td>
</tr>
<tr>
<td>LAN1032H</td>
<td>History, Theory, Criticism 2</td>
</tr>
<tr>
<td>LAN1037H</td>
<td>Plants and Design</td>
</tr>
<tr>
<td>LAN2037H</td>
<td>Contemporary Landscape Theory</td>
</tr>
</tbody>
</table>

Post Professional

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALA4010H</td>
<td>Field Course</td>
</tr>
<tr>
<td>ALA4020H</td>
<td>Thesis Preparation (corequisite: ALA4010H)</td>
</tr>
<tr>
<td>ALA4021Y</td>
<td>Thesis I (prerequisite: ALA4020H)</td>
</tr>
<tr>
<td>ALA4022Y</td>
<td>Thesis II (prerequisite: ALA4021Y)</td>
</tr>
<tr>
<td>ALA4030H</td>
<td>Colloquium (prerequisites: ALA4010H and ALA4020H; exclusion: ALD4030H)</td>
</tr>
</tbody>
</table>

Proseminar

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN3051H</td>
<td>Landscape Architecture Research Methods</td>
</tr>
<tr>
<td>LAN3052H</td>
<td>Professional Practice</td>
</tr>
</tbody>
</table>

Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN1047H</td>
<td>Site Engineering</td>
</tr>
<tr>
<td>LAN2042H</td>
<td>Landscape Materials, Assemblies, Techniques</td>
</tr>
<tr>
<td>LAN3045H</td>
<td>Advanced Site Technologies</td>
</tr>
</tbody>
</table>
### Visual Communication

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN1021H</td>
<td>Visual Communication 1</td>
</tr>
<tr>
<td>LAN1022H</td>
<td>Visual Communication 2</td>
</tr>
<tr>
<td>LAN2023H</td>
<td>Intermediate Visual Communication</td>
</tr>
<tr>
<td>LAN3025H</td>
<td>Advanced Visual Communication</td>
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</tbody>
</table>

### Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN3400H</td>
<td>Landscape Architecture Topics: Techniques</td>
</tr>
<tr>
<td>LAN3410H</td>
<td>Landscape Architecture Topics: Technology</td>
</tr>
<tr>
<td>LAN3800H</td>
<td>Landscape Architecture Topics: Technology</td>
</tr>
<tr>
<td>LAN3810H</td>
<td>Landscape Architecture Topics: Technology</td>
</tr>
</tbody>
</table>

### Elective Courses

#### Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN3200H</td>
<td>Landscape Architecture Topics: Design</td>
</tr>
<tr>
<td>LAN3210H</td>
<td>Landscape Architecture Topics: Design</td>
</tr>
</tbody>
</table>

#### Environment

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN3300H</td>
<td>Landscape Architecture Topics: Environment</td>
</tr>
<tr>
<td>LAN3310H</td>
<td>Landscape Architecture Topics: Plants</td>
</tr>
<tr>
<td>LAN3500H</td>
<td>Landscape Architecture Topics: Plants</td>
</tr>
<tr>
<td>LAN3510H</td>
<td>Landscape Architecture Topics: Plants</td>
</tr>
</tbody>
</table>

#### History, Theory, Criticism

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN3039H</td>
<td>Independent Study</td>
</tr>
<tr>
<td>LAN3700H</td>
<td>Landscape Architecture Topics: Society</td>
</tr>
<tr>
<td>LAN3710H</td>
<td>Landscape Architecture Topics: Society</td>
</tr>
<tr>
<td>LAN3900H</td>
<td>Landscape Architecture Topics: History, Theory, Criticism</td>
</tr>
<tr>
<td>LAN3910H</td>
<td>Landscape Architecture Topics: History, Theory, Criticism</td>
</tr>
</tbody>
</table>

### Architecture, Landscape, and Design: Urban Design MUD

#### Master of Urban Design

**Program Description**

The Master of Urban Design (MUD) is a post-professional program that prepares architects and landscape architects for design-based research and professional practice at the urban and regional scales. The MUD program is committed to design as a primary medium of operation and research in a broad intellectual framework that includes geography, environmental studies, social sciences, media studies, economics, and engineering. It aims for responsible and creative design in the context of contemporary city and region building, with attention to new paradigms of urbanization, global economic restructuring, and information technology. The program emphasizes a coherent intellectual approach that is committed to analysis and critique and seeks to become the central Canadian forum for advanced research, design innovation, scholarship, criticism, and debate in urban design.

**MUD Program (2-Year)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- A professional degree in architecture (BArch or MArch) or landscape architecture (BLA, MLA). Applicants with a degree in urban planning (MCP, MUP, or MScPl) may be considered for admission if they are able to demonstrate design potential in their application portfolio.
Applicants may be required to complete design and/or visual communication workshops before they begin the MUD program, to prepare them for the design studio component of the MUD curriculum.

- All applicants must submit a portfolio of design work for review. Admission is based on the merits of the applicant's overall academic background and strength of design portfolio as evaluated by the admissions committee.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

- Students study full-time, taking all required courses in each given session. An FZ (fail) in any one course, or a B- grade in two studio courses or in any three courses normally results in a recommendation to the School of Graduate Studies to terminate the student's candidacy for the degree program.
- There is no additional language requirement other than proficiency in English on admission. Writing support is integrated into the program to develop specialized skills that are essential to effective learning and communication in the design fields.
- Progress in the program is dependent upon satisfactory completion of studio and required core courses in sequence. Exceptions can be made at the discretion of the Program Director, and in consultation with the Office of the Registrar and Student Services in the case of accessibility.
- Coursework. Students must complete a total of 10.0 full-course equivalents (FCEs) as follows:
  - 7.5 FCEs in core courses:
    - 1.0 FCE: Design Studio
    - 2.0 FCEs: Option Design Studio
    - 0.5 FCE: Thesis Preparation and Research
    - 1.5 FCEs: Design Thesis
    - 1.0 FCE: History, Theory, Criticism
    - 1.5 FCEs: other courses
  - 2.5 elective FCEs, of which 1.5 FCEs must be selected from offerings in the History, Theory, Criticism category.

Program Length

4 sessions full-time (typical registration sequence: F/W/F/W)

Time Limit

3 years full-time

Architecture, Landscape, and Design: Urban Design MUD Courses

Not all electives are offered every year. Please check the timetable for current listings available.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>URD1011Y</td>
<td>Urban Design Studio</td>
</tr>
<tr>
<td>URD1012Y</td>
<td>Urban Design Studio Options</td>
</tr>
<tr>
<td>URD2012Y</td>
<td>Independent Studio in Urban Design (may be undertaken in lieu of an option studio)</td>
</tr>
<tr>
<td>URD2013Y</td>
<td>Urban Design Studio Research (prerequisites: URD1011Y, URD1012Y; exclusions: ARC3015Y, LAN3016Y) or</td>
</tr>
<tr>
<td>LAN3016Y</td>
<td>Landscape Design Studio Research (exclusions: ARC3020Y, URD2013Y) or</td>
</tr>
<tr>
<td>ARC3020Y</td>
<td>Design Studio Research (prerequisite: ARC2014Y; exclusions: ARC3016Y, LAN3016Y, URD2013Y)</td>
</tr>
<tr>
<td>URD2015Y</td>
<td>Urban Design Studio Thesis</td>
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History, Theory, Criticism

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>URD1031H</td>
<td>The History of Toronto Urban Form</td>
</tr>
<tr>
<td>URD1041H</td>
<td>Introduction to Urban Design Theory</td>
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</table>

Other

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>URD1021H</td>
<td>Urban Design Visual Communications</td>
</tr>
<tr>
<td>URD1044H</td>
<td>Urban Design and Development</td>
</tr>
<tr>
<td>URD2014H</td>
<td>Thesis Research and Preparation</td>
</tr>
<tr>
<td>URD2041H</td>
<td>Business and Land Use Planning in Real Estate Development</td>
</tr>
</tbody>
</table>

Elective Courses

History, Theory, Criticism

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>URD1200H;</td>
<td>Selected Topics in History and Theory of Urban Design</td>
</tr>
<tr>
<td>URD1202H</td>
<td></td>
</tr>
<tr>
<td>URD1501H;</td>
<td>Selected Topics in Urban Design</td>
</tr>
<tr>
<td>URD1503H;</td>
<td></td>
</tr>
<tr>
<td>URD1505H</td>
<td></td>
</tr>
<tr>
<td>URD1514H</td>
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Other

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>URD1022H</td>
<td>Topics in Computer-Aided Urban Design</td>
</tr>
<tr>
<td>URD1042H</td>
<td>Urban Design and Environmental Systems</td>
</tr>
<tr>
<td>URD1300H</td>
<td>Selected Topics in Digital Urbanism</td>
</tr>
</tbody>
</table>

Architecture, Landscape, and Design: Visual Studies MVS

Master of Visual Studies

Program Description

The Master of Visual Studies (MVS) is a two-year, full-time professional program with two fields:

- Curatorial Studies: prepares students for contemporary curatorial practice through research-based scholarship and critical discourse.
- Studio: prepares students to further their contemporary art practices through research-based scholarship and critical discourse.

The program normally begins in September.

Field: Curatorial Studies

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- An appropriate bachelor's degree with significant coursework in humanities and cultural theory from a recognized university, or an appropriate BFA degree from a recognized university.
- Overall average of at least a B+.
- Applications must include:
  - artist's statement that includes a description of the proposed body of work in curatorial to be undertaken during the two-year program;
  - full curriculum vitae (CV) with details of exhibition, professional activity, and education;
  - documentation of recent curatorial work;
  - three letters of recommendation;
  - a critical writing sample;
  - transcripts;
  - a portfolio of previous work dependent on the field of future study.
- Applicants must present a portfolio with documentation of exhibitions including exhibition brochures, curatorial essays, announcement cards, and/or catalogues from curatorial work.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

- **Coursework.** Students must complete a total of 6.5 full-course equivalents (FCEs) as follows:
  - 4.5 FCEs from the approved course list for Curatorial Studies.
  - 0.5 FCE MVS Proseminars.
  - 1.5 FCEs in electives. Elective courses are selected in consultation with the student's advisor and are subject to the approval of the Program Director.
- The **internship** requirement is normally completed during the Summer session between Year 1 and Year 2.
- MVS Curatorial Studies students are supervised by an Advisory Panel made up of the Director of the Visual Studies program (or their designate), a graduate faculty member who will be considered to be the student's Principal Advisor, one of the University of Toronto's gallery directors, and an external reader chosen upon approval of the Principle Advisor and Program Director.
- The graduating **thesis project** is composed of an exhibition and a qualifying paper.
- An FZ (fail) in any one course or a B– grade in any two courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

Field: Studio

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Architecture, Landscape, and Design's additional admission requirements stated below.
- An appropriate bachelor's degree with significant coursework in humanities and cultural theory from a recognized university, or an appropriate BFA degree from a recognized university.
- Overall average of at least a B+.
- Applications must include:
  - artist's statement that includes a description of the proposed body of work in studio to be undertaken during the two-year program;
  - full curriculum vitae (CV) with details of exhibition, professional activity, and education;
  - documentation of recent studio work;
  - three letters of recommendation;
  - a critical writing sample;
transcripts;
• a portfolio of previous work dependent on the field of future study.

• Applicants must present a portfolio with documentation of their artworks. Applicants will also include a fully annotated listing for all portfolio materials that provides detailed information about media, year of production, dimensions, part of a series, full running length (in the case of media artworks), and circumstances of display (in the case of installation works and performance works).

• Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

• Coursework. Students must complete a total of 6.5 full-course equivalents (FCEs) as follows:
  • 4.5 FCEs from the approved course list for Studio.
  • 0.5 FCE MVS Proseminars.
  • 1.5 FCEs in electives. Elective courses are selected in consultation with the student's advisor and are subject to the approval of the Program Director.

• The internship requirement is normally completed during the Summer session between Year 1 and Year 2.

• MVS Studio students are supervised by an Advisory Panel made up of the Director of the Visual Studies program (or designate), a studio faculty member of the MVS program who is considered the student's Principal Advisor, a second MVS studio faculty member, and another faculty member (not necessarily a member of the MVS program). The Final Studio Thesis defence requires an external reader chosen upon approval of the Principal Advisor and Program Director.

• The graduating thesis project is composed of an exhibition and a qualifying paper.

• An FZ (fail) in any one course or a B– grade in any two courses normally results in a recommendation to the School of Graduate Studies to terminate the student's registration in the degree program.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

Architecture, Landscape, and Design: Visual Studies MVS Courses

MVS Curatorial Studies Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIS1000H</td>
<td>MVS Proseminar</td>
</tr>
<tr>
<td>(0.25 FCE)</td>
<td></td>
</tr>
<tr>
<td>VIS1004H</td>
<td>Internship</td>
</tr>
<tr>
<td>VIS1010H</td>
<td>Contemporary Art Since 1960</td>
</tr>
<tr>
<td>VIS1020H</td>
<td>Contemporary Art: Theory and Criticism</td>
</tr>
<tr>
<td>VIS1101H</td>
<td>Paradigmatic Exhibitions: History, Theory, Criticism</td>
</tr>
<tr>
<td>VIS1102H</td>
<td>MVS Curatorial Research</td>
</tr>
<tr>
<td>VIS2000H</td>
<td>MVS Proseminar (prerequisite: VIS1000H)</td>
</tr>
<tr>
<td>(0.25 FCE)</td>
<td></td>
</tr>
<tr>
<td>VIS2002H</td>
<td>MVS Research and Writing</td>
</tr>
<tr>
<td>VIS2101Y</td>
<td>MVS Curatorial Studies Exhibition Project</td>
</tr>
<tr>
<td>VIS2102H</td>
<td>MVS Curatorial Studies Collaboration</td>
</tr>
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</table>

MVS Studio Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>VIS1000H</td>
<td>MVS Proseminar</td>
</tr>
<tr>
<td>(0.25 FCE)</td>
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</tr>
<tr>
<td>VIS1001H</td>
<td>Interdisciplinary Studio Practicum/Critiques I</td>
</tr>
<tr>
<td>VIS1003H</td>
<td>Interdisciplinary Studio Practicum/Critiques II</td>
</tr>
<tr>
<td>VIS1004H</td>
<td>Internship</td>
</tr>
<tr>
<td>VIS1010H</td>
<td>Contemporary Art Since 1960</td>
</tr>
<tr>
<td>VIS1020H</td>
<td>Contemporary Art: Theory and Criticism</td>
</tr>
<tr>
<td>VIS2000H</td>
<td>MVS Proseminar (prerequisite: VIS1000H)</td>
</tr>
<tr>
<td>(0.25 FCE)</td>
<td></td>
</tr>
<tr>
<td>VIS2001H</td>
<td>Studio Practicum/Critiques III</td>
</tr>
<tr>
<td>VIS2002H</td>
<td>MVS Research and Writing</td>
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<tr>
<td>VIS2003Y</td>
<td>MVS Project</td>
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MVS Elective Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIS3001H</td>
<td>Advanced Readings in Visual Studies</td>
</tr>
<tr>
<td>VIS3002H</td>
<td>Advanced Readings in Curatorial Studies</td>
</tr>
<tr>
<td>VIS3003H</td>
<td>Special Topics in Art and Culture</td>
</tr>
</tbody>
</table>
Art History

Art History: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Art History

MA and PhD

- Fields:
  - Ancient;
  - Medieval;
  - Early Modern;
  - Modern and Contemporary

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Book History and Print Culture
  - Art History, MA, PhD
- Diaspora and Transnational Studies
  - Art History, MA, PhD
- Jewish Studies
  - Art History, MA, PhD
- Mediterranean Archaeology
  - Art History, PhD
- Sexual Diversity Studies
  - Art History, MA, PhD

Overview

The Department of Art History’s graduate programs emphasize the research, writing, and teaching necessary to pursue a career in academia or museum work. The programs benefit from affiliations at the University with the Centre for Medieval Studies and the Centre for Renaissance and Reformation Studies, as well as resources in Toronto including the Royal Ontario Museum, the Art Gallery of Ontario, the Aga Khan Museum, and the Gardiner Museum.

Contact and Address

Web: arthistory.utoronto.ca
Email: graduate.arthistory@utoronto.ca
Telephone: (416) 946-3960

Graduate Department of Art History
University of Toronto
Sidney Smith Hall
Room 6037A, 100 St. George Street
Toronto, Ontario M5S 3G3
Canada

Art History: Graduate Faculty

Full Members

Anderson, Christy - BA, MA, PhD
Bear, Jordan - BA, MA, MPH, PhD
Caskey, Jill - AB, MA, MPH, PhD
Cheetham, Mark - BPhil, MA, PhD
Cohen, Adam - PhD
Ewald, Bjoern - AM, PhD
Gu, Yi - BLitt, MMSt, PhD
Harakawa, Maya - DA
Harney, Elizabeth - AB, MA, PhD
Jain, Kajri - PhD (Graduate Chair)
Kaplan, Louis - AB, AM, DPhil
Kavaler, Ethan Matt - PhD
Kim, SeungJung - BS, MA, MPH, PhD, PhD (Director of Graduate Studies)
Knappett, Carl - MA, PhD
Legge, Elizabeth MM - BA, BA, MA, PhD
Levy, Evonne - MFA, PhD
Migwans, Mikinaak - BFA, MA
Periti, Giancarla - PhD
Purtle, Jennifer - BA, MPH, MA, PhD
Ricco, John - BA, MA, PhD
Sapirstein, Philip - PhD, PhD, PhD
Sohm, Philip - BA, MA, PhD
Syme, Alison - PhD

Members Emeriti

Richardson, Douglas - BA, MA, PhD
Shaw, Joseph - BA, MAT, PhD
Shaw, Maria - PhD

Associate Members

Behrendt, Kurt - PhD
Dewan, Deepali - BA, MA, PhD
Kooistra, Lorraine Janzen - BA, MA, PhD
Matthews David, Alison - DA
Nikolakopoulou, Irene - BA, MA, DPhil
Takesue, Akiko - PhD

Art History: Art History MA

Master of Arts

Program Description

The MA program is a course-based degree designed to prepare art history students for doctoral research, curatorial work, art consultation, heritage programs, cultural journalism, and secondary school teaching.

MA students do not complete a thesis and are not assigned a supervisor. The MA program can be taken on a full-time or part-time basis.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Art History's additional admission requirements stated below.
- Strong overall grade average in art history and closely related subjects and at least a B+ average in recent senior art history courses. Outstanding applicants with other backgrounds may be considered.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.0 graduate full-course equivalents (FCEs) as follows:
  - Coursework must be chosen from at least three of four fields: 1) Ancient, 2) Medieval, 3) Early Modern, 4) Modern and Contemporary. No more than 2.0 FCEs may be taken in any one of the four fields.
  - Coursework must also be taken in at least two geographic zones. Courses without a specific regional focus may count toward the geographical distribution requirement if the student's final paper is on an appropriate topic.
  - The equivalent of 1.0 FCE may be taken in another graduate department (for example, Medieval Studies, Near and Middle Eastern Civilizations), subject to approval of the Department of Art History and the other department concerned.
- Reading knowledge of a language other than English (normally French, German, Italian, Arabic, or Chinese); tested in the first session.
- A research methods workshop.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Art History: Art History PhD

Doctor of Philosophy

Program Description

The PhD program is designed to prepare art history students for college and university teaching, museum curatorships, and other research positions.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master's degree or 2) direct entry after completing a bachelor's degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Art History's additional admission requirements stated below.
- Minimum A– average in their master's program.
- Reading knowledge of two foreign languages relevant to the student's research.
- Students unable to meet language requirements for particular courses may be refused admission to courses; enrolment in Fall courses is limited and subject to instructor's approval.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) of graduate courses as follows:
  - FAH5000Y Comprehensive Examinations and Dissertation Topic Reading Course (1.0 FCE; Credit/No Credit) with the student's interim supervisor to prepare for the comprehensive examinations.
  - FAH1001H Methods of Art History (0.5 FCE), a departmental methodology course, must be taken in Year 1. With departmental approval, credit may be given for a research methodology course taken previously.
  - Students are encouraged to take courses reflecting a variety of time periods and geographic zones.
- A research methods workshop is recommended.
- At the end of each academic year, students' progress will be reviewed to ensure that they have made satisfactory progress through the program; this includes maintaining full-time status with a GPA of at least A– and completion of all language requirements.
- Students must pass examinations in two foreign languages by the end of Year 2. Students who have completed a language exam during their MA may apply to have the exam counted towards fulfilling one of the two foreign language requirements. The appropriate languages will be set by the interim supervisor in consultation with the Director of Graduate Studies, and additional languages may be required depending on the research needs of the student's dissertation topic.
- Within Years 1 and 2, students complete coursework and language requirements and secure a prospective supervisor with whom they will discuss plans for the comprehensive examinations.
- Additionally, within Years 1 and 2, students must take a three-part comprehensive examination: 1) the first part focusing on one of the four fields, 2) the second on the student's dissertation field, and 3) the third (oral) discussing the first two.
  - The exam consists of an in-house written section, a take-home essay, and an oral exam.
  - The student will meet with the Examination Committee (normally made up of at least three members of the department, one of whom will be the prospective dissertation supervisor), in order to define the areas of the examination, the length of study, and such readings and special topics as deemed appropriate.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Art History's additional admission requirements stated below.
- Applicants with a bachelor's degree who have an exceptionally strong academic record; minimum grade average of A– in art history and humanities courses in the last two years.
- Reading knowledge of two foreign languages relevant to the student's research.
- Students unable to meet language requirements for particular courses may be refused admission to courses; enrolment in Fall courses is limited and subject to instructor's approval.

Program Requirements

- **Coursework.** Students must successfully complete at least 5.5 full-course equivalents (FCEs) in art history as follows:
  - FAH5000Y Comprehensive Examinations and Dissertation Topic Reading Course (1.0 FCE; Credit/No Credit) must be taken in Year 2 with the student's interim supervisor to prepare for the comprehensive examinations.
  - FAH1001H Methods of Art History (0.5 FCE), a departmental methodology course, must be taken in Years 1 and 2. With departmental approval, credit may be given for a research methodology course taken previously.
  - The remaining 4.0 FCEs must be chosen from at least three of the following fields: (1) Ancient, (2) Medieval, (3) Early Modern, (4) Modern and Contemporary. Any course that covers more than one of these time periods may only be used to fulfil one of the FCE distributions.
  - Coursework must be taken in at least two geographic zones (Western, East Asian, South Asian, African, etc.). Courses without a specific regional focus may count toward the geographical distribution requirement if the student's final paper is on an appropriate topic.
- Students must maintain an A– average.
- A research methods workshop, normally taken in Year 1.
- Students must pass examinations in two foreign languages by the end of Year 2. Students focusing on Ancient, Medieval, and Renaissance and Baroque will normally be expected to pass the examination in German as one of their two languages. The appropriate languages will be set by the interim supervisor in consultation with the Director of Graduate Studies, and additional languages may be required depending on the research needs of the student's dissertation topic. Language requirements must be completed prior to approval of the dissertation proposal.
- At the beginning of Year 3, students' progress will be reviewed to ensure that they have made satisfactory progress through the program; this includes maintaining full-time status with a GPA of at least A– and completion of all language requirements.
- Within the first three years, students must take a three-part comprehensive examination: 1) the first part focusing on one of the four fields, 2) the second on the dissertation field, and 3) the third (oral) discussing the first two.
  - The exam consists of an in-house written section, a take-home essay, and an oral exam.
  - Upon the completion of all coursework, PhD students must seek out and secure the participation of a prospective supervisor with whom they will discuss plans for the comprehensive examinations.
- The student will meet with the Examination Committee (normally made up of at least three members of the department, one of whom will be the prospective dissertation supervisor) in order to define the areas of the examination, the length of study, and such readings and special topics as deemed appropriate.
- If a student fails the comprehensive examinations, one further attempt is allowed, no more than three months later. A second failure results in the immediate removal of the student from the program.
- Once the student passes the exam, their graduate record will be updated to reflect successful exam completion.
- Immediately following successful completion of comprehensive examinations, students must formally establish their PhD Supervisory Committee.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)
This will include the faculty member acting as the dissertation supervisor, and two other graduate faculty members. These arrangements must be approved by the department's Graduate Program Committee.

- Working with the PhD Supervisory Committee, the student will develop a detailed proposal for their research, to be submitted 3 months after the successful completion of their comprehensive exam. The length and specific nature of the proposal will be determined by the Supervisory Committee and the PhD student. The drafted proposal must be approved, first by the Supervisory Committee, and then by the department's Director of Graduate Studies.

- At some point during the dissertation stage, students will present their work to the faculty and students at a colloquium in an appropriate format and at a time to be determined by the supervisor in consultation with the Director of Graduate Studies.

- **Normal timeline through the program:** By the end of Year 2, students should have completed all course requirements for the degree. By the end of the following year of registration, students should satisfy any remaining requirements, select a thesis committee, pass the comprehensive examination, and submit a thesis proposal. Thereafter, the candidate selects a member of the thesis committee to be the thesis supervisor and begins work on their thesis.

### Program Length

5 years (some students may take longer to complete the program)

### Time Limit

7 years

### Art History: Art History MA, PhD Courses

Not all courses are offered each year. Check the departmental website for course availability under the current timetable.

### Methods

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>FAH1001H</td>
<td>Methods of Art History</td>
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### Ancient

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>FAH2021H</td>
<td>Myth and Fantasy in Roman Painting</td>
</tr>
<tr>
<td>FAH2023H</td>
<td>Mind and Materiality: Views from Art History and Archaeology</td>
</tr>
<tr>
<td>FAH2025H</td>
<td>Visual Narrative and Time in Ancient Greek and Roman Art</td>
</tr>
<tr>
<td>FAH2027H</td>
<td>Women and Gender in Ancient Greece</td>
</tr>
</tbody>
</table>

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>FAH2028H</td>
<td>Art and the Philosophy of Time</td>
</tr>
<tr>
<td>FAH2034H</td>
<td>Topics in Roman Imperial Art</td>
</tr>
<tr>
<td>FAH2037H</td>
<td>Empathy, Embodiment, and Emotion in Ancient Art</td>
</tr>
<tr>
<td>FAH2038H</td>
<td>Greek and Roman Sculpture in the Royal Ontario Museum</td>
</tr>
<tr>
<td>FAH2041H</td>
<td>Greek Vases at the Royal Ontario Museum</td>
</tr>
<tr>
<td>FAH2060H</td>
<td>Artisans and Artists in the Ancient Mediterranean</td>
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</tbody>
</table>

### Medieval

<table>
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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>FAH1118H</td>
<td>The Medieval Treasury</td>
</tr>
<tr>
<td>FAH1119H</td>
<td>Global Medieval Art in China</td>
</tr>
<tr>
<td>FAH1127H</td>
<td>Early Medieval Art</td>
</tr>
<tr>
<td>FAH1130H</td>
<td>Architecture of the Otherworld</td>
</tr>
<tr>
<td>FAH1175H</td>
<td>Early Islamic Architecture: 7th–10th c.</td>
</tr>
<tr>
<td>FAH1176H</td>
<td>History of Islamic Cairo (7th–16th c.)</td>
</tr>
<tr>
<td>FAH1177H</td>
<td>Building the Islamic Empire: Architecture of the Umayyads</td>
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### Early Modern

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FAH1202H</td>
<td>Correggio and the Problem of Italian Renaissance Art</td>
</tr>
<tr>
<td>FAH1204H</td>
<td>The Cassinese Art of Reform in Renaissance Italy</td>
</tr>
<tr>
<td>FAH1205H</td>
<td>Early Modern Intermediality</td>
</tr>
<tr>
<td>FAH1206H</td>
<td>Artistic Localities in the Early Modern World</td>
</tr>
<tr>
<td>FAH1207H</td>
<td>Formalism and Its Objects</td>
</tr>
<tr>
<td>FAH1210H</td>
<td>Chinese Painting: Objects, Theories, Methods</td>
</tr>
<tr>
<td>FAH1220H</td>
<td>Multi-Media Transmorphism</td>
</tr>
<tr>
<td>FAH1221H</td>
<td>Inside the Painter's Studio</td>
</tr>
<tr>
<td>FAH1229H</td>
<td>Architecture of the Global Renaissance</td>
</tr>
<tr>
<td>FAH1231H</td>
<td>Northern European Sculpture 1400–1600</td>
</tr>
<tr>
<td>FAH1232H</td>
<td>Liquescent Art and Cultures</td>
</tr>
</tbody>
</table>
## Modern and Contemporary

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FAH1410H</td>
<td>Artwriting Past and Present</td>
</tr>
<tr>
<td>FAH1411H</td>
<td>Art and Analogy</td>
</tr>
<tr>
<td>FAH1416H</td>
<td>Art History and the Digital</td>
</tr>
<tr>
<td>FAH1457H</td>
<td>Vernacular Photography</td>
</tr>
<tr>
<td>FAH1460H</td>
<td>Wallace Berman and His Countercultural Circles</td>
</tr>
<tr>
<td>FAH1462H</td>
<td>Photography and Scientific Representation in the 19th Century</td>
</tr>
<tr>
<td>FAH1463H</td>
<td>Realisms</td>
</tr>
<tr>
<td>FAH1475H</td>
<td>Picasso in View of Nanette</td>
</tr>
<tr>
<td>FAH1476H</td>
<td>Surrealism and Art</td>
</tr>
<tr>
<td>FAH1486H</td>
<td>Bloomsbury and Vorticism</td>
</tr>
<tr>
<td>FAH1488H</td>
<td>The Nature of Landscape</td>
</tr>
<tr>
<td>FAH1489H</td>
<td>Re: Vision (Comparative Histories of the Senses)</td>
</tr>
<tr>
<td>FAH1490H</td>
<td>Photography and the Occult</td>
</tr>
<tr>
<td>FAH1495H</td>
<td>Art, Empire, Colonization</td>
</tr>
<tr>
<td>FAH1500H</td>
<td>Augmented Reality Art</td>
</tr>
<tr>
<td>FAH1756H</td>
<td>Acoustic Space</td>
</tr>
<tr>
<td>FAH1757H</td>
<td>Animal Images</td>
</tr>
<tr>
<td>FAH1758H</td>
<td>What Images Do: Approaches From South Asia</td>
</tr>
<tr>
<td>FAH1759H</td>
<td>Modern Architecture and Its Representations</td>
</tr>
<tr>
<td>FAH1820H</td>
<td>Modern Craft</td>
</tr>
<tr>
<td>FAH1870H</td>
<td>The Visual Arts in Canada in International Perspective</td>
</tr>
<tr>
<td>FAH1920H</td>
<td>Primitivism to Globalism: Theories of Otherness in Modern and Contemporary Arts</td>
</tr>
<tr>
<td>FAH1921H</td>
<td>GeoAesthetics</td>
</tr>
<tr>
<td>FAH1922H</td>
<td>Contemporary Art and Ethnography: Renewed Exchanges</td>
</tr>
<tr>
<td>FAH1934H</td>
<td>Cosmopolitan/Comparative Modernisms</td>
</tr>
<tr>
<td>FAH1935H</td>
<td>Contemporary Art Practices and the Modernist Archive</td>
</tr>
<tr>
<td>FAH1940H</td>
<td>Photography and Humour</td>
</tr>
<tr>
<td>FAH1951H</td>
<td>Contemporary Chinese Art and its Discontents</td>
</tr>
<tr>
<td>FAH1960H</td>
<td>Indigenous Art, Land, and Material Relations in the Great Lakes</td>
</tr>
<tr>
<td>FAH1961H</td>
<td>Art and Activism</td>
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<table>
<thead>
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<th>Course Code</th>
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<tbody>
<tr>
<td>FAH1965H</td>
<td>The Sixties Revisited</td>
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</table>

## Reading Courses

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FAH3000H</td>
<td>Special Studies in History of Art (only 1.0 FCE with this prefix is permitted in any one degree program)</td>
</tr>
<tr>
<td>FAH3011H</td>
<td>Readings in Ancient Art</td>
</tr>
<tr>
<td>FAH3012H</td>
<td>Readings in Medieval Art</td>
</tr>
<tr>
<td>FAH3013H</td>
<td>Readings in Renaissance and Baroque Art</td>
</tr>
<tr>
<td>FAH3014H</td>
<td>Readings in Modern and Contemporary Art</td>
</tr>
<tr>
<td>FAH5000Y</td>
<td>Comprehensive Examinations and Dissertation Topic Reading Course</td>
</tr>
</tbody>
</table>

## Undergraduate/Graduate Courses

Periodically, the department may offer fourth-year undergraduate courses that have been recognized for graduate credit. Please visit the [departmental website](#) and discuss with the Graduate Coordinator.

## Relevant Courses in Other Departments

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAS1229H</td>
<td>Topics in Chinese Aesthetics</td>
</tr>
<tr>
<td>EAS1339H</td>
<td>Topics in Chinese Art Theories</td>
</tr>
<tr>
<td>MSL2240H</td>
<td>The Photographic Record</td>
</tr>
</tbody>
</table>
Astronomy and Astrophysics

Astronomy and Astrophysics: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Astronomy and Astrophysics

MSc and PhD

Overview

The David A. Dunlap Department of Astronomy and Astrophysics is actively engaged in a wide range of observational and theoretical research on solar system dynamics, stars, stellar systems, the interstellar medium, the Galaxy, galaxies, quasars, clusters of galaxies, cosmology, and problems in general relativity. The department has close ties with the Canadian Institute for Theoretical Astrophysics (CITA) and the Dunlap Institute for Astronomy and Astrophysics (Dunlap). These ties provide great flexibility to students with a broad array of interests, giving them the option to work with a supervisor from one of these sibling units, and further enhance the opportunities for students to interact with leading researchers.

Faculty and students use the major optical, radio, and satellite observing facilities of the world. Of particular importance are the national facilities: the Canada France-Hawaii optical telescope, the James Clerk Maxwell radio telescope, and the Gemini telescopes located at the world’s finest observing sites.

The department has an active experimental program using telescopes on long-duration stratospheric balloons and a complementary program designing and building instrumentation for large optical telescopes, and for cosmological and Galactic research.

There are approximately 100 faculty, postdoctoral fellows, graduate students, and staff in the Department of Astronomy and Astrophysics, CITA, and Dunlap. Students benefit from direct interactions with the broad range of external speakers invited to weekly seminar programs and colloquia.

Contact and Address

Web: www.astro.utoronto.ca
Email: grad.sec@astro.utoronto.ca
Telephone: (416) 946-5243
Fax: (416) 946-7287

David A. Dunlap Department of Astronomy and Astrophysics
University of Toronto
50 St. George Street
Toronto, Ontario M5S 3H4
Canada

Astronomy and Astrophysics: Graduate Faculty

Full Members

Abraham, Roberto - BSc, DPhil, FRSC (Chair and Graduate Chair)
Artemowicz, Pawel - MS, PhD
Bond, J. Richard - BSc, MS, PhD, FRSC, FRS
Bovy, Jo - MMath, PhD, CRC
Bryan, Marta - BA, MA, PhD
Drout, Maria - PhD, CRC
Fishbach, Maya - PhD
Gaensler, Bryan - PhD, CRC (Director)
Hincks, Adam - DPhil
Hlozek, Renee - PhD
Kollmeier, Juna - PhD
Li, Ting - PhD
Lowman, Julian - BSc, MS, DPhil
Martin, Peter - BSc, MSc, PhD, FRSC, OC
Matzner, Christopher - BA, MA, PhD
Mena Parra, Juan - PhD, PhD
Menou, Kristen - BSc, MS, ScD (Associate Chair, Graduate)
Moon, Dae-Sik - BS, MS, PhD
Murray, Norman - BSc, PhD, CRC
Netterfield, C. Barth - BSc, PhD
Pen, Ue-Li - BSc, PhD
Rein, Hanno - MS, DPhil
Sivanandam, Suresh - PhD (Interim Director)
Thompson, Christopher - BSc, PhD
Tremaine, Scott - PhD
Valencia, Diana - BS, MS, ScD
van Kerkwijk, Marten - MA, PhD
Vanderlinde, Keith - PhD
Wu, Yanqin - PhD

Members Emeriti

Carlberg, Raymond - BSc, MS, PhD
Lester, John - BA, MS, PhD
Percy, John - BSc, MA, PhD
Yee, Howard - BASc, PhD, FRSC

Associate Members

Friesen, Rachel Katherine - PhD
Reid, Michael - BSc, MSc, PhD
Webb, Jeremy - PhD

Astronomy and Astrophysics: Astronomy and Astrophysics MSc

Master of Science

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Astronomy and Astrophysics’ additional admission requirements stated below.
- Applicants must hold an appropriate bachelor’s degree with high academic standing from a recognized university.
Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Because many universities do not offer extensive undergraduate training in astronomy and astrophysics, preparation in physics and mathematics is an acceptable background.

Program Requirements

**Coursework.** Students must successfully complete 2.0 required full-course equivalents (FCEs): AST1501Y and AST1500Y, with different supervisors. Students are immediately engaged in original research throughout these two required research courses. An oral exam by committee is held for each. AST1501Y is normally completed during the Fall/Winter of Year 1, and AST1500Y is completed in the following Summer session.

Students must complete a minimum of 1.5 FCEs (three half courses) from the AST preparatory, elective, or specialized courses. More courses may be taken for credit or audited as appropriate.

Students are expected to attend the weekly general colloquium conducted by the department.

**Residence.** Students are normally expected to be on campus full-time for the duration of the program.

Program Requirements

- There is no minimum course requirement in the four-year program except for courses deemed necessary by the student's PhD supervisory or qualifying examination committees.
- Students register in the AST4000Y Research course series (in sequence of the last digit: 2, 3, etc.) beginning in the Summer session of Year 1 and continue through the sequence through Year 4. The first registration, AST4002Y, corresponds to the qualifying examinations. The series continues with registration each Fall/Winter, starting with AST4003Y and is incremented by one digit each subsequent academic year. This registration is tied to thesis research progress, which is assessed based on the two required annual PhD supervisory committee meetings in October and April.
- Students must successfully complete the two parts of the PhD qualifying examinations: literature-based and thesis proposal. Both are oral examinations conducted by a panel of faculty members.
  - The literature-based section evaluates the student's mastery of general astronomy and astrophysics and ability to apply that knowledge to understand relevant research literature.
  - The thesis proposal section evaluates the feasibility and value of the proposed thesis and verifies that the student has sufficient preparation in the relevant research area. It is based in part on a written summary of the proposed thesis provided by the student to the examiners.

The literature qualifying examinations are taken in parallel with the corresponding graduate course offering, with completion of the four sections by the end of Year 1. The thesis proposal examination is taken in the Summer session of Year 1. Students who fail at the first attempt have the opportunity to retake the examinations once, by the deadline of January 31 of Year 2.

- A thesis embodying the results of original research, which must be submitted for appraisal in accordance with the regulations of the School of Graduate Studies.
- Students are normally expected to attend the weekly general colloquium conducted by the department.
- Residence. Students are normally expected to be on campus full-time for the duration of the program.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

**Astronomy and Astrophysics: Astronomy and Astrophysics PhD**

**Doctor of Philosophy**

**Program Description**

The Department of Astronomy and Astrophysics offers dynamic and competitive doctoral programs which emphasize research.

Students may be accepted into the PhD program via one of two routes: 1) following completion of an appropriate master's degree or 2) direct entry following completion of a bachelor's degree.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Astronomy and Astrophysics' additional admission requirements stated below.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Applicants may be accepted into the PhD program following completion of an MSc degree in Astronomy and Astrophysics from the University of Toronto, or an MSc degree in another appropriate discipline or from elsewhere deemed equivalent, with an average of at least B+ or demonstrated comparable research competence.

Program Requirements

- There is no minimum course requirement in the four-year program except for courses deemed necessary by the student's PhD supervisory or qualifying examination committees.
- Students register in the AST4000Y Research course series (in sequence of the last digit: 2, 3, etc.) beginning in the Summer session of Year 1 and continue through the sequence through Year 4. The first registration, AST4002Y, corresponds to the qualifying examinations. The series continues with registration each Fall/Winter, starting with AST4003Y and is incremented by one digit each subsequent academic year. This registration is tied to thesis research progress, which is assessed based on the two required annual PhD supervisory committee meetings in October and April.
- Students must successfully complete the two parts of the PhD qualifying examinations: literature-based and thesis proposal. Both are oral examinations conducted by a panel of faculty members.
  - The literature-based section evaluates the student's mastery of general astronomy and astrophysics and ability to apply that knowledge to understand relevant research literature.
  - The thesis proposal section evaluates the feasibility and value of the proposed thesis and verifies that the student has sufficient preparation in the relevant research area. It is based in part on a written summary of the proposed thesis provided by the student to the examiners.

The literature qualifying examinations are taken in parallel with the corresponding graduate course offering, with completion of the four sections by the end of Year 1. The thesis proposal examination is taken in the Summer session of Year 1. Students who fail at the first attempt have the opportunity to retake the examinations once, by the deadline of January 31 of Year 2.

- A thesis embodying the results of original research, which must be submitted for appraisal in accordance with the regulations of the School of Graduate Studies.
- Students are normally expected to attend the weekly general colloquium conducted by the department.
- Residence. Students are normally expected to be on campus full-time for the duration of the program.

Program Length

4 years
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Astronomy and Astrophysics’ additional admission requirements stated below.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Students are accepted into the PhD program following completion of a bachelor’s degree, with an average in the final two years equivalent to a University of Toronto A– or better from a recognized university.
- Because many universities do not offer extensive undergraduate training in astronomy and astrophysics, preparation in physics and mathematics is an acceptable background.

Program Requirements

- **Coursework.** Students must successfully complete 2.0 full-course equivalents (FCEs): AST1500Y and AST1501Y, with different supervisors. Students are immediately engaged in original research throughout these two required research courses. AST1501Y is normally completed during the Fall/Winter of Year 1, and AST1500Y is completed in the following Summer session. An oral exam by committee is held for each.
- Students must complete a minimum of 2.5 FCEs (five half courses) from the AST preparatory, elective, or specialized courses. Students may petition the associate chair, graduate to include courses offered by a cognate department at the equivalent level. (A maximum of 1.0 FCE may be substituted.) More courses may be taken for credit or audited as appropriate.
- Students register in the AST4000Y Research course series (in sequence of the last digit: 2, 3, etc.) beginning in the Summer session of Year 2 and continue the sequence through Year 5. The first registration, AST4002Y, corresponds to the qualifying examinations. The series continues with registration each Fall/Winter, starting with AST4003Y and is incremented by one digit each subsequent academic year. This registration is tied to thesis research progress, which is assessed based on the two required annual PhD supervisory committee meetings in October and April.
- Students must successfully complete the two parts of the PhD qualifying examinations: literature-based and thesis proposal. Both are oral examinations conducted by a panel of faculty members.
  - The literature-based section evaluates the student's mastery of general astronomy and astrophysics and ability to apply that knowledge to understand relevant research literature.
  - The thesis proposal section evaluates the feasibility and value of the proposed thesis and verifies that the student has sufficient preparation in the relevant research area. It is based in part on a written summary of the proposed thesis provided by the student to the examiners.
- A thesis embodying the results of original research, which must be submitted for appraisal in accordance with the regulations of the School of Graduate Studies.
- Students are expected to attend the weekly general colloquium conducted by the department.
- **Residence.** Students are normally expected to be on campus full-time for the duration of the program.

Program Length

- 5 years

Time Limit

- 7 years

Astronomy and Astrophysics: Astronomy and Astrophysics MSc, PhD Courses

Preparatory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AST1410H</td>
<td>Stars</td>
</tr>
<tr>
<td>AST1420H</td>
<td>Galactic Structure and Dynamics</td>
</tr>
<tr>
<td>AST1430H</td>
<td>Cosmology</td>
</tr>
<tr>
<td>AST1440H</td>
<td>Radiation Processes and Gas Dynamics</td>
</tr>
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Research Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AST1500Y*</td>
<td>Directed Research</td>
</tr>
<tr>
<td>AST1501Y</td>
<td>Introduction to Research</td>
</tr>
<tr>
<td>AST4000Y*</td>
<td>Research (students register in this 4000Y series each year, beginning in Year 2, in sequence of the last digit: 2, 3, etc.)</td>
</tr>
<tr>
<td>AST4002Y*</td>
<td>Research</td>
</tr>
<tr>
<td>AST4003Y*</td>
<td>Research</td>
</tr>
<tr>
<td>AST4004Y*</td>
<td>Research</td>
</tr>
<tr>
<td>AST4005Y*</td>
<td>Research</td>
</tr>
</tbody>
</table>
* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

### Elective Courses

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AST2010H</td>
<td>Physics of Stellar Atmospheres</td>
</tr>
<tr>
<td>AST2020H</td>
<td>Physics of Stellar Interiors</td>
</tr>
<tr>
<td>AST2040H</td>
<td>Extragalactic Astronomy</td>
</tr>
<tr>
<td>AST2050H</td>
<td>Observational Techniques</td>
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</table>

### Specialized Courses

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AST3011H</td>
<td>Advanced Topics in Stellar and Galactic Astronomy II</td>
</tr>
<tr>
<td>AST3020H</td>
<td>Advanced Topics in Interstellar Matter and Star Formation I</td>
</tr>
<tr>
<td>AST3030H</td>
<td>Advanced Topics in Extragalactic Astronomy and Cosmology I</td>
</tr>
<tr>
<td>AST3031H</td>
<td>Advanced Topics in Extragalactic Astronomy and Cosmology II</td>
</tr>
<tr>
<td>AST3040H</td>
<td>Advanced Topics in Planetary Science</td>
</tr>
<tr>
<td>AST3050Y</td>
<td>Theoretical Cosmology</td>
</tr>
<tr>
<td>AST3100H</td>
<td>Lecture Series in Specialized Topics</td>
</tr>
<tr>
<td>AST3101H (0.25 FCE)</td>
<td>Specialized Topics in Astronomy and Astrophysics</td>
</tr>
</tbody>
</table>
Biochemistry

Biochemistry: Introduction

Faculty Affiliation

Medicine

Degree Programs

Biochemistry

MSc and PhD

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Biomedical Engineering**
  - Biochemistry, MSc, PhD
- **Developmental Biology**
  - Biochemistry, MSc, PhD
- **Genome Biology and Bioinformatics**
  - Biochemistry, PhD
- **Neuroscience**
  - Biochemistry, MSc, PhD

Overview

Biochemistry is the study of the molecular events underlying biological processes. Consequently, it makes fundamental contributions to all disciplines concerned with living systems.

The Department of Biochemistry offers modern facilities for research in a wide variety of areas including the relationship between structure and biological function in proteins, nucleic acids, and lipids as well as complex multicomponent systems such as membranes and subcellular organelles.

Contact and Address

Web: biochemistry.utoronto.ca
Email: carrie.harber@utoronto.ca
Telephone: (416) 978-4815
Fax: (416) 946-8228

Department of Biochemistry
University of Toronto
Room 5207, Medical Sciences Building
Toronto, Ontario M5S 1A8
Canada

Biochemistry: Graduate Faculty

Full Members

- Adeli, Khosrow - DipChem, MSc, PhD
- Andrews, David - PhD
- Angers, Stéphane - BSc, PhD
- Attisano, Liliana - BSc, PhD
- Bear, Christine - BSc, MSc, PhD
- Brown, Grant - BSc, PhD
- Chakrabarty, Avijit - BSc, MSc, PhD
- Chan, Hue Sun - BSc, MA, PhD
- Davidson, Alan Richard - BSc, PhD
- Deber, Charles - BSc, PhD
- Ensminger, Alexander - BS, PhD
- Ernst, Oliver - PhD
- Forman-Kay, Julie - BSc, PhD
- Glover, John - BSc, MSc, PhD
- Grinstein, Sergio - BSc, PhD
- Houry, Walid - BS, MS, PhD
- Howell, Lynne - BSc, PhD
- Julien, Jean-Philippe - PhD
- Kahr, Walter - MD
- Kay, Lewis - PhD
- Keeley, Frederick - BSc, PhD
- Kelley, Shana - BA, PhD
- Klip, Amira - ScD
- Lee, Warren - MD, PhD
- Maxwell, Karen - PhD
- Maynes, Jason T. - BSc, DrMed
- McQuibban, Angus - BSc, MSc, PhD
- Melnyk, Roman - PhD
- Moraes, Trevor - BS, MSc, PhD
- Muise, Aleixo - MD
- Nodwell, Justin - PhD
- Palazzo, Alexander - PhD (Graduate Coordinator)
- Parkinson, John - BS, PhD
- Pomes, Regis - PhD
- Prive, Gil - BSc, PhD
- Prosse, Scott - BSc, MSc, DPhil
- Rand, Margaret - BSc, PhD
- Reithmeier, Reinhart - BSc, PhD
- Rini, James - BSc, PhD
- Rotin, Daniela - BSc, MSc, PhD
- Schulze, Andreas - MD
- Schuurmans, Carol - PhD
- Sharpe, Simon J. - BSc, PhD
- Smibert, Craig - BSc, PhD
- Staglijar, Igor - BS, PhD
- Steipe, Boris - MD, PhD
- Trimble, William - BSc, PhD
- Watts, Joel - PhD
- Wilde, Andrew Rhys - BSc, PhD
- Yip, Christopher - BSc, PhD

Members Emeriti

- Anwar, Rashid - BSc, MSc, PhD
- Baker, Robert - BSc, PhD
- Gurd, James - BA, PhD
- Isenman, David - BSc, BSc, PhD
- Lane, Byron - BA, PhD
- Lewis, Peter - BSc, PhD
- Lingwood, Clifford - BSc, PhD
- Marks, Alexander - MD, PhD
- Moran, Laurence - BSc, PhD
- Murray, Robert - MS, MD, MB, PhD
Associate Members

Andreopoulos, Stavroula - BSc, MSc, PhD
Norris, Michael - PhD
Patterson, Sian - PhD

Biochemistry: Biochemistry MSc

Master of Science

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Biochemistry's additional admission requirements stated below.
- Normally, a minimum B+ average in the last two years of study in an honours or specialist BSc program in biochemistry or molecular biology. Applicants with strong academic credentials in honours or specialist programs in disciplines related to biochemistry or molecular biology are also considered.
- Applicants arrange for personal reference forms from three individuals familiar with their academic performance.
- Applicants who obtained a degree outside Canada or the United States are generally required to have an MSc degree in Biochemistry or in a closely related subject area.
- Applicants whose primary language is not English and who graduated from a non-Canadian university where the language of instruction was not English must provide Test of English as a Foreign Language (TOEFL) and Test of Written English (TWE) scores:
  - paper-based TOEFL: minimum 580 score and 5 on the TWE
  - Internet-based TOEFL: minimum 93/120 score and 22/30 on the writing and speaking sections.
- In the absence of TOEFL results, an International English Language Testing System (IELTS) score of at least 7.0 (Academic) with at least 6.5 for each component is also acceptable.

Program Requirements

Students must complete any courses that were a condition of acceptance.

- Coursework. Students must successfully complete a total of 1.5 full-course equivalents (FCEs) as follows:
  - BCH2020Y 0Seminar Course in Biochemistry Level 1 (1.0 FCE)
  - BCH2101H Scientific Skills for Biochemists (0.25 FCE)
  - at least 0.25 elective FCE.

Biochemistry: Biochemistry PhD

Doctor of Philosophy

Students are accepted into the PhD program via one of three routes: 1) following completion of an MSc degree in biochemistry or a cognate discipline; 2) transfer (reclassification) from the University of Toronto MSc program; or 3) following completion of a BSc degree (direct entry) if, in the opinion of the Biochemistry Graduate Committee, the student has an outstanding academic record.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Biochemistry's additional admission requirements stated below.
- Applicants must arrange for personal reference forms from three individuals familiar with their academic performance.
- Applicants are generally required to have an MSc degree in biochemistry or in a closely related subject area with high academic standing.
- Applicants whose primary language is not English and who graduated from a non-Canadian university where the language of instruction was not English must provide Test of English as a Foreign Language (TOEFL) and Test of Written English (TWE) scores:
  - paper-based TOEFL: minimum 580 score and 5 on the TWE
  - Internet-based TOEFL: minimum 93/120 score and 22/30 on the writing and speaking sections.
- In the absence of TOEFL results, an International English Language Testing System (IELTS) score of at least 7.0 (Academic) with at least 6.5 for each component is also acceptable.

- Students must submit a thesis (RST999Y; Credit/No Credit) and successfully complete an oral examination on their research and related aspects of biochemistry.
- Normally, MSc students are expected to participate as full-time students and to maintain full-time status in their laboratories until thesis completion and final defence.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)**

Time Limit

3 years full-time

0 Course that may continue over a program. The course is graded when completed.
** Students may begin the program in the Fall or Winter.
Program Requirements

Students must complete any courses that were a condition of acceptance.

- Coursework. Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - BCH2022Y0 Seminar Course in Biochemistry Level 2 (1.0 FCE)
  - BCH2101H Scientific Skills for Biochemists (0.25 FCE).
  - If previously taken students must take a substitute 0.25 FCE course approved by the graduate coordinator.
  - 0.75 elective FCE.
- Students must successfully complete a qualifying examination within the first 24 months (ideally 18 months) of the program. To be eligible to write this qualifying examination, students must:
  - complete BCH2101H
  - be concurrently registered in BCH2022Y0
  - complete at least 0.25 elective FCE; after completing the qualifying examination, students must complete the remaining 0.5 elective FCE.
- Submit a thesis (RST9999Y; Credit/No Credit) and defend it at the Doctoral Final Oral Examination.
- Normally, PhD students are expected to participate as full-time students and to maintain full-time status in their laboratories until thesis completion and final defence.

Program Length

4 years full-time

Time Limit

6 years full-time

PhD Program (Transfer)

Transfer Requirements

- Transfer applicants must be enrolled in the MSc program in Biochemistry. Excellent students with high academic standing, who have clearly demonstrated the ability to do research at the doctoral level, may be considered for transfer to the PhD program. Recommendation by the student’s supervisory committee is required.
- Transfer applicants must successfully complete a reclassification (transfer) examination within 18 to 24 months of starting the program.

Program Requirements

Students must complete any courses that were a condition of acceptance.

- Coursework. Students must successfully complete a total of 3.5 full-course equivalents (FCEs) as follows:
  - BCH2020Y0 Seminar Course in Biochemistry Level 1 (1.0 FCE)
  - BCH2022Y0 Seminar Course in Biochemistry Level 2 (1.0 FCE)
  - BCH2101H Scientific Skills for Biochemists (0.25 FCE)
  - 1.25 elective FCEs.
- To be eligible to write the reclassification examination, students must:
  - complete BCH2101H
  - be concurrently registered in BCH2022Y0
  - complete at least 0.25 elective FCE; after completing the reclassification examination, students must complete the remaining 1.0 elective FCE.
- Submit a thesis (RST9999Y; Credit/No Credit) and defend it at the Doctoral Final Oral Examination.
- Normally, PhD students are expected to participate as full-time students and to maintain full-time status in their laboratories until thesis completion and final defence.

Program Length

5 years full-time

Time Limit

7 years full-time

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Direct entry is available to highly qualified BSc graduates who completed a Biochemistry specialist program or an appropriate undergraduate program in the life sciences from a recognized university, with a minimum A average in the final two years and relevant research experience.
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Biochemistry’s additional admission requirements stated below.
- Applicants must arrange for personal reference forms from three individuals familiar with their academic performance.
- Applicants who obtained a degree outside Canada or the United States are generally required to have an MSc degree in biochemistry or in a closely related subject area with high academic standing.
- Applicants whose primary language is not English and who graduated from a non-Canadian university where the language of instruction was not English must provide Test of English as a Foreign Language (TOEFL) and Test of Written English (TWE) scores:
  - paper-based TOEFL: minimum 580 score and 5 on the TWE
  - Internet-based TOEFL: minimum 93/120 score and 22/30 on the writing and speaking sections.
- In the absence of TOEFL results, an International English Language Testing System (IELTS) score of at least 7.0 (Academic) with at least 6.5 for each component is also acceptable.

O Course that may continue over a program. Credit is given when the course is completed.
Program Requirements

Students must complete any courses that were a condition of acceptance.

- **Coursework.** Students must successfully complete a total of 3.5 full-course equivalents (FCEs) as follows:
  - BCH2020Y\(^0\) Seminar Course in Biochemistry Level 1 (1.0 FCE)
  - BCH2022Y\(^0\) Seminar Course in Biochemistry Level 2 (1.0 FCE)
  - BCH2101H Scientific Skills for Biochemists (0.25 FCE)
  - 1.25 elective FCEs.

- Students must successfully complete a **qualifying examination** within 18 to 24 months of the program. To be eligible to write this qualifying examination, students must:
  - complete BCH2101H
  - be concurrently registered in BCH2020Y\(^0\)
  - complete at least 0.25 elective FCE; after completing the qualifying exam, students must complete the remaining 1.0 elective FCE.

- Submit a **thesis** (RST9999Y; Credit/No Credit) and defend it at the **Doctoral Final Oral Examination**.

- Normally, PhD students are expected to participate as full-time students and to maintain full-time status in their laboratories until thesis completion and final defence.

Program Length

5 years

Time Limit

7 years

\(^0\) Course that may continue over a program. Credit is given when the course is completed.

Biochemistry: Biochemistry MSc, PhD Courses

For course details and availability, consult the Biochemistry website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH2020Y(^0)</td>
<td>Seminar Course in Biochemistry Level 1 (Credit/No Credit)</td>
</tr>
<tr>
<td>BCH2022Y(^0)</td>
<td>Seminar Course in Biochemistry Level 2 (Credit/No Credit)</td>
</tr>
<tr>
<td>BCH2024H(^0)</td>
<td>Focused Topics in Biochemistry</td>
</tr>
<tr>
<td>JBB2025H</td>
<td>Protein Crystallography — Lectures</td>
</tr>
<tr>
<td>JBB2026H</td>
<td>Protein Structure, Folding, and Design</td>
</tr>
<tr>
<td>JBL1507H</td>
<td>Biochemistry of Inherited Disease</td>
</tr>
<tr>
<td>JNP1017H(^\ast)</td>
<td>Current Topics in Molecular and Biochemical Toxicology</td>
</tr>
<tr>
<td>JNP1018H(^\ast)</td>
<td>Molecular and Biochemical Basis of Toxicology</td>
</tr>
<tr>
<td>JNR1444Y</td>
<td>Fundamentals of Neuroscience: Cellular and Molecular — Lectures (PSL444Y)(^0)</td>
</tr>
</tbody>
</table>

Modular Courses

Each modular course is worth 0.25 full-course equivalent (FCE).

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>BCH2101H</td>
<td>Scientific Skills for Biochemists</td>
</tr>
<tr>
<td>BCH2102H</td>
<td>Biomolecular Dynamics and Function</td>
</tr>
<tr>
<td>BCH2103H</td>
<td>Current Topics in Prion Biology</td>
</tr>
<tr>
<td>BCH2104H</td>
<td>The Biochemistry of Translational Medicine</td>
</tr>
<tr>
<td>BCH2105H</td>
<td>Cystic Fibrosis: The Cause, The Treatment</td>
</tr>
<tr>
<td>BCH2106H</td>
<td>Membrane Proteomics in Biomedical Research</td>
</tr>
<tr>
<td>BCH2107H</td>
<td>Introduction to Biomolecular Simulations</td>
</tr>
<tr>
<td>BCH2109H</td>
<td>Current Topics in Therapeutic Antibodies</td>
</tr>
<tr>
<td>BCH2110H</td>
<td>Eukaryotic Signaling</td>
</tr>
<tr>
<td>BCH2111H</td>
<td>Post-transcriptional Control of Gene Expression</td>
</tr>
<tr>
<td>BCH2112H</td>
<td>From Chaperones to CRISPR-Cas: the Incredible Genius of Phages</td>
</tr>
<tr>
<td>BCH2113H</td>
<td>Advances in Precision Medicine</td>
</tr>
<tr>
<td>BCH2114H</td>
<td>Frontiers in Drug Discovery</td>
</tr>
<tr>
<td>BCH2115H</td>
<td>Applying Modern Evolutionary Thinking to Biochemistry, Cell, and Molecular Biology</td>
</tr>
<tr>
<td>BCH2116H</td>
<td>Electron Paramagnetic Resonance Spectroscopy in Modern Life Sciences</td>
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<tr>
<td>BCH2119H</td>
<td>Advances in Epigenetics</td>
</tr>
<tr>
<td>BCH2120H</td>
<td>Studies of Tissue Barriers: Regulation of Phenotype and Transport Across the Epithelium and Endothelium</td>
</tr>
<tr>
<td>BCH2121H</td>
<td>Lipid Metabolism in Health and Disease: Mechanisms of Diabetic Dyslipidemia in Obesity and Type 2 Diabetes</td>
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<tr>
<td>BCH2122H</td>
<td>The Use of High Content Screening in Biomolecular Medicine</td>
</tr>
<tr>
<td>BCH2123H</td>
<td>Protein Structure Prediction and Homology Modelling</td>
</tr>
<tr>
<td>BCH2124H</td>
<td>Molecular Chaperones and Cellular Protein Homeostasis</td>
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<tr>
<td>BCH2125H</td>
<td>Structure and Dynamics of Biomacromolecules Using Solid State NMR Spectroscopy</td>
</tr>
<tr>
<td>BCH2126H</td>
<td>Subcellular Social Networks: Inter-Organelle Contact Sites</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>BCH2127H</td>
<td>Advances in Optical Microscopy: From Single Molecules to Four-Dimensional Imaging</td>
</tr>
<tr>
<td>BCH2128H</td>
<td>Scientific Thinking and Practice</td>
</tr>
<tr>
<td>BCH2129H</td>
<td>Genome Instability: Basic Science to Human Disease</td>
</tr>
<tr>
<td>BCH2130H</td>
<td>Cancer Biology</td>
</tr>
<tr>
<td>BCH2131H</td>
<td>Genomics of Infectious Disease</td>
</tr>
<tr>
<td>BCH2132H</td>
<td>Modelling Human Diseases from Cells to Organoids</td>
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<td>BCH2133H</td>
<td>Tyrosine Kinase Signaling</td>
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<tr>
<td>BCH2134H</td>
<td>Cytoskeletal Dynamics</td>
</tr>
<tr>
<td>BCH2135H</td>
<td>Mitochondria and Metabolism in Human Health and Disease</td>
</tr>
<tr>
<td>BCH2136H</td>
<td>Biological Condensates</td>
</tr>
<tr>
<td>BCH2137H</td>
<td>Bug v. Host</td>
</tr>
<tr>
<td>BCH2138H</td>
<td>Advanced Electron Microscopy</td>
</tr>
<tr>
<td>BCH2139H</td>
<td>Islet Biology I: Gene to Cell to Organ to Disease</td>
</tr>
<tr>
<td>BCH2140H</td>
<td>Islet Biology II: Beyond Glucose Control: Molecular Targets, Diagnostics and Cutting-Edge Technologies</td>
</tr>
<tr>
<td>BCH2141H</td>
<td>Advanced Methods in Biomolecular Interactions</td>
</tr>
<tr>
<td>BCH2200H</td>
<td>Design Thinking for Scientists</td>
</tr>
<tr>
<td>BCH2201H</td>
<td>Professional Development</td>
</tr>
<tr>
<td>BCH2202H</td>
<td>Intro Programming in R</td>
</tr>
<tr>
<td>BCH2203H</td>
<td>Intro Programming in Python</td>
</tr>
<tr>
<td>BCH2204H</td>
<td>Advanced Programming in R</td>
</tr>
<tr>
<td>BCH2205H</td>
<td>Advanced Programming in Python</td>
</tr>
<tr>
<td>BCH2206H</td>
<td>Interdisciplinary Science</td>
</tr>
<tr>
<td>BCH2207H</td>
<td>Collaborative Science: Student Centered Interdisciplinary Studies</td>
</tr>
</tbody>
</table>

0 Course that may continue over a program. The course is graded when completed, or credit is given when the course is completed.
* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
§ Arts and Science undergraduate course.
Overview

The Institute of Biomedical Engineering (IBME) offers facilities for research in biomedical engineering and for three educational programs leading to master’s and doctoral degrees.

Biomedical engineering is a multidisciplinary field that integrates engineering and biology/medicine. It uses methods, principles, and tools of engineering, physical sciences, and mathematics to solve problems in the medical and life sciences for the study of living systems; the enhancement and replacement of those systems; the design and construction of systems to measure basic physiological parameters; the development of instruments, materials, and techniques for biological and medical practice; and the development of artificial organs and other medical devices. By its nature, the majority of the institute’s work is interdisciplinary.

Contact and Address

Institute of Biomedical Engineering Academic Programs Office
Web: bme.utoronto.ca
Email: contact.bme@utoronto.ca
Institute of Biomedical Engineering
University of Toronto
Room 407, Rosebrugh Building
164 College Street
Toronto, Ontario M5S 3G9
Canada

MASc Program
Telephone: (416) 978-4841

PhD Program
Telephone: (416) 978-4841

MEng Program
Telephone: (416) 978-7209

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Cardiovascular Sciences**
  - Biomedical Engineering, MASc, PhD

- **Developmental Biology**
  - Biomedical Engineering, MASc, PhD
  - Clinical Engineering, MHSc
Biomedical Engineering: Graduate Faculty

Full Members

Amon, Cristina - BASc, MSc, ScD
Andrysek, Jan - BSc, MASc, PhD
Audet, Julie - MASc, PhD
Baradkijian, Berj - BSc, BEd, MASc, PhD
Biddiss, Elaine Alisa - MASc, PhD
Cafazzo, Joseph - DPhil
Carneiro, Karina - BSc, PhD
Chan, Warren - BSc, PhD
Chau, Tom - PhD
Cheng, Hai-Ling - BSc, MS, PhD
Cheyne, Douglas - BSc, MA, PhD
Davies, John - BSc, BDesc, PhD, DSc (Associate Director, Graduate Program)
Diller, Eric David - BS, MS, PhD
Drake, James McKenzie - BSE, MSc, MBCHB
Dutta, Tilak - MEng
Fernandez-Gonzalez, Rodrigo - BSc, PhD
Fernie, Geoffrey - BSc, PhD
Franklin, Daniel - PhD
Garton, Michael James - PhD
Gilbert, Penney - PhD
Gordon, Karen - DPhil
Grynpas, Marc - MSc, PhD
Gu, Frank - BSc, PhD
Guenther, Axel - Dipling, DE
Guerguerian, Anne Marie - MD
Harrison, Robert - PhD, DSc
Hatton, Benjamin - BASc, MASc, PhD
Hinz, Boris - PhD
Ibrahim, George - BS, MD, PhD
Kahrs, Lueer Alexander - MSc, PhD
Keshavjee, Shaf - BA, MSc, LMCC, MD
Khan, Omar F. - PhD
Khan, Shehroz Saeed - PhD
Kumbhare, Dinesh - BSc, MHS, MD
Lankarany, Milad - PhD
Levi, Ofer - BSc, MSc, PhD
Li, Ren-Ke - BEng, MSc, MD, PhD
Mahadevan, Radhakrishnan - BTech, PhD
Masani, Kei - EdD
Matsuura, Naomi - ME, PhD
Mihailidis, Alex - BASc, MASc, PhD
Milosevic, Luka - PhD
Moffat, Jason - BSc, PhD
Morshead, Cindi - BS, PhD
Naguib, Hani - BSc, ME, PhD, PEng
Popovic, Milos - Dipling, PhD
Prescott, Steven - BSc, MSc, MD, PhD
Radisic, Milica - BEng, PhD
Rocheleau, Jonathan - BSc, PhD
Roshan Fekr, Atena - PhD
Santerre, Paul - BSc, MSc, PhD
Sefton, Michael - BASc, ScD
Shoichet, Molly - PhD
Simmons, Craig - BSc, MSc, PhD
Sone, Eli - BSc, MS, PhD
Sun, Yu - BS, MS, MS, PhD
Trbovich, Patricia L. - BA, MA, PhD, PhD
Triverio, Piero - BScEE, MS, PhD
Truong, Kevin - BASc, PhD
Tsoi, Kim - BASc, MD, PhD
Vasconcelos, Sara - PhD
Viswanathan, Sowmya - DPhil
Wheeler, Aaron - BS, PhD

Whyne, Cari - BSc, PhD
Yadollahi, Azadeh - DrEng
Yip, Christopher - BSc, PhD
Yoo, Paul - BASc, MSc, PhD
You, Lidan - BS, MS, PhD
Young, Edmond - BASc, MASc, PhD
Zandstra, Peter - BEng, PhD
Zariffa, Jose - DrEng

Members Emeriti

Cobbold, Richard - PhD
Dolan, Alf - BSc, MSc
Frecker, Richard - BSc, MD, PhD
Kunov, Hans - MSc, PhD
Norwich, Kenneth - MSc, PhD
Pilliar, Robert - BASc, PhD

Associate Members

Bouwmeester, Chris - PhD
Fialkov, Jeffrey Allan - MSc, MD
Kilkenny Rocheleau, Dawn - PhD
Li, Bowen - BScPhm, PhD
Podolsky, Dale - BS, BE, MD, PhD
Steinman, David - BASc, MASC, PhD
Zrenner, Christoph - BA, MA, MBA, DrMed

Biomedical Engineering: Biomedical Engineering MASc

Master of Applied Science

Program Description

The Master of Applied Science (MASc) program is a research-stream, thesis-based program which provides a strong academic foundation for students who want to become immersed in the discipline of biomedical engineering. This program is designed to offer students challenging and rewarding research opportunities within the context of using engineering principles to enhance the quality of our health-care system.

The MASc program is offered in the fields of 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; and 4) Neural/Sensory Systems and Rehabilitation.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the institute’s additional admission requirements stated below.
- A bachelor's degree in dentistry, engineering, medicine, or one of the physical or biological sciences from a recognized university with a minimum academic standing of mid-B or 3.0 grade point average (GPA) in the final two years of study or over senior-level courses.
Program Requirements

• **Coursework.** The program normally comprises at least 2.0 full-course equivalents (FCEs) including:
  o Two of the following (1.0 FCE):
    ▪ BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE)
    ▪ BME1478H Coding for Biomedical Engineers (0.5 FCE)
    ▪ BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE)
  o Two half-course electives relevant to the student's area of research (1.0 FCE).
• Students must participate in:
  o Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE).
  o JDE1000H Ethics in Research (0.0 FCE).
  o Health and safety training workshops.
• Successful completion of a research thesis in at least one of the biomedical engineering research fields: 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; and 4) Neural/Sensory Systems and Rehabilitation.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

Biomedical Engineering: Biomedical Engineering MEng

Master of Engineering

Program Description

The Master of Engineering (MEng) program is an accelerated, professional program with a focus on the design and commercialization of biomedical devices. Students will have the opportunity to take on applied design challenges and meet the growing demands of this industry through a four-month practical experience through internships, research projects, or practical course activities.

The MEng program is offered in the fields of 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; and 4) Neural/Sensory Systems and Rehabilitation.

The MEng program can be taken on a full-time, extended full-time, or part-time basis.

Full-Time Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IBME's additional admission requirements stated below.
• A four-year bachelor's degree in engineering, medicine, dentistry, or one of the physical or biological sciences from a recognized university, with at least a mid-B average (3.0 grade point average [GPA]) in the final two years of study or over senior-level courses.

Program Requirements

• **Coursework.** Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  o At least 2.0 FCEs in biomedical engineering courses; these include all BME and joint BME course offerings.
  o At least 1.0 FCE in commercialization and entrepreneurship courses such as BME1800H, BME1801H, BME1802H, and BME1405H. Completion of either BME1800H or BME1801H is required for graduation.
  o A 1.0 FCE Practical Experience in Applied Research course in biomedical device development, usually over one session for a full-time placement (BME1899Y) or over three sessions for a part-time placement (BME1898Y). The placement must be in at least one of the following biomedical engineering research fields: 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; or 4) Neural/Sensory Systems and Rehabilitation. The practical experience course can be taken in academic research and teaching laboratories, government institutions, health-care facilities, in the industry, or in health-care consulting firms.
  o The remaining 1.0 FCE can be two half courses in either biomedical engineering, commercialization and entrepreneurship, or any graduate-level course the student is interested in.
• All courses must be at the graduate level, which includes both 500- and 1000-level. Students can take a maximum of one 500-level course.
• Health and safety training workshops.
• Students have the option of completing an emphasis in Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); or Forensic Engineering as part of their degree program. Please see details in the Biomedical Engineering MEng Emphases section.

Program Length

3 sessions (typical registration sequence: F/W/S)

Time Limit

2 years
Extended Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IBME’s additional admission requirements stated below.
- A four-year bachelor's degree in engineering, medicine, dentistry, or one of the physical or biological sciences from a recognized university, with at least a mid-B average (3.0 grade point average [GPA]) in the final two years of study or over senior-level courses.

Program Requirements

- **Coursework.** Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - At least 2.0 FCEs in biomedical engineering courses; these include all BME and joint BME course offerings.
  - At least 1.0 FCE in commercialization and entrepreneurship courses such as BME1800H, BME1801H, BME1802H, and BME1405H. Completion of either BME1800H or BME1801H is required for graduation.
  - A 1.0 FCE Practical Experience in Applied Research course in biomedical device development, usually over one session for a full-time placement (BME1899Y) or over three sessions for a part-time placement (BME1898Y). The placement must be in at least one of the following biomedical engineering research fields: 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; or 4) Neural/Sensory Systems and Rehabilitation. The practical experience course can be taken in academic research and teaching laboratories, government institutions, health-care facilities, in the industry, or in health-care consulting firms.
  - The remaining 1.0 FCE can be two half courses in either biomedical engineering, commercialization and entrepreneurship, or any graduate-level course the student is interested in.
- All courses must be at the graduate level, which includes both 500- and 1000-level. Students can take a maximum of one 500-level course.
- Health and safety training workshops.
- Students have the option of completing an emphasis in Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); or Forensic Engineering as part of their degree program. Please see details in the Biomedical Engineering MEng Emphases section.

Program Length

6 sessions (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

Part-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IBME’s additional admission requirements stated below.
- A four-year bachelor's degree in engineering, medicine, dentistry, or one of the physical or biological sciences from a recognized university, with at least a mid-B average (3.0 grade point average [GPA]) in the final two years of study or over senior-level courses.

Program Requirements

- **Coursework.** Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - At least 2.0 FCEs in biomedical engineering courses; these include all BME and joint BME course offerings.
  - At least 1.0 FCE in commercialization and entrepreneurship courses such as BME1800H, BME1801H, BME1802H, and BME1405H. Completion of either BME1800H or BME1801H is required for graduation.
  - A 1.0 FCE Practical Experience in Applied Research course in biomedical device development, usually over one session for a full-time placement (BME1899Y) or over three sessions for a part-time placement (BME1898Y). The placement must be in at least one of the following biomedical engineering research fields: 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; or 4) Neural/Sensory Systems and Rehabilitation. The practical experience course can be taken in academic research and teaching laboratories, government institutions, health-care facilities, in the industry, or in health-care consulting firms.
  - The remaining 1.0 FCE can be two half courses in either biomedical engineering, commercialization and entrepreneurship, or any graduate-level course the student is interested in.
- All courses must be at the graduate level, which includes both 500- and 1000-level. Students can take a maximum of one 500-level course.
- Health and safety training workshops.
- Students have the option of completing an emphasis in Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); or Forensic Engineering as part of their degree program. Please see details in the Biomedical Engineering MEng Emphases section.

Program Length

9 sessions part-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

Time Limit

6 years
Emphasis: Engineering and Globalization (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) from the following lists, with at least two half courses (or one full course) taken from Group A.

**Group A**

- APS510H1, APS530H1, APS1420H, JCR1000Y (full-year course).

**Group B**

- APS1015H, APS1020H, APS1024H, CHL5700H, CIV1399H.

Note: Students who choose to pursue an MEng project in their home department that aligns with the Centre for Global Engineering (CGEN)'s disciplinary focus, as deemed by the CGEN Director, may count the project as one required Group B course.

Students who complete the requirements of the emphasis in Engineering and Globalization and wish to obtain a notation on their transcript should contact the Faculty Graduate Studies office.

Emphasis: Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) (MEng only)

MEng students must successfully complete any four of the following courses (2.0 full-course equivalents [FCEs]):

**Leadership**


**Entrepreneurship and Innovation**

- APS511H1, APS1012H, APS1013H, APS1015H, APS1023H, APS1033H, APS1035H, APS1036H, APS1041H, APS1061H, APS1088H.

**Finance and Management**


Emphasis: Forensic Engineering (MEng only)

MEng students must successfully complete four courses (one core course and three elective courses; 2.0 full-course equivalents [FCEs]).

**Core Course**

- MSE1031H Forensic Engineering.

**Elective Courses**


Biomedical Engineering: Biomedical Engineering PhD

**Fields:** 1 Biomaterials, Tissue Engineering & Regenerative Medicine; 2 Engineering in a Clinical Setting; 3 Nanotechnology, Molecular Imaging & Systems Biology; 4 Neural/Sensory Systems & Rehabilitation

Doctor of Philosophy

Program Description

The PhD program offers courses and a strong research thesis component. Students emerge from this program ready to pursue careers in academia, medicine, industry, and government. Students with a particular interest in conducting biomedical engineering research with a primary clinical focus may pursue a field in clinical engineering within the Biomedical Engineering PhD program.

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate master's degree; 2) transfer from the University of Toronto MASc or MHSc program; or 3) direct entry following completion of an appropriate bachelor's degree.
Fields:
1) Biomaterials, Tissue Engineering and Regenerative Medicine;
2) Engineering in a Clinical Setting;
3) Nanotechnology, Molecular Imaging and Systems Biology;
4) Neural/Sensory Systems and Rehabilitation

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the institute’s additional admission requirements stated below.
- Applicants must have a master’s degree in dentistry, engineering, medicine, or one of the physical or biological sciences with an overall average of at least B+ (3.3 grade point average [GPA]) from a recognized university.

Program Requirements

- **Coursework.** Normally, students must complete at least 1.0 full-course equivalent (FCE) including:
  - Two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE);
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE).
  - Students are also expected to pursue a thesis topic relevant to at least one of the following Biomedical Engineering research fields: 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; and 4) Neural/Sensory Systems and Rehabilitation.
  - Within 12 months of registration, students must pass a qualifying examination covering the broad field of biomedical engineering appropriate to their background.
  - Successful completion of a thesis, representing an original investigation in biomedical engineering.
  - Students will continue to meet with their supervisory committee at least once every 12 months until recommendation for the departmental oral examination is made. On the recommendation of the supervisory committee and special approval from their department Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental oral examination and proceed directly to the Doctoral Final Oral Examination.
  - Students must participate in:
    - Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE);
    - JDE1000H Ethics in Research (0.0 FCE);
    - Health and safety training workshops.

PhD Program (Transfer)

Transfer Requirements

- Highly qualified master’s students (MHSc students in Clinical Engineering or MASc students in any field) may be considered for transfer into the PhD program in any of the five fields. MASc and MHSc students who transfer to a PhD must fulfil the admission requirements listed under the specific field of the PhD program they are transferring to.

Program Requirements for MASc Transfer Students

- **Coursework.** Students who transfer from the MASc program in Biomedical Engineering must complete the total course requirements for both degrees: 2.0 full-course equivalents (FCEs) at the master’s level plus 1.0 FCE at the PhD level, for a total of 3.0 FCEs.
  - Students must complete two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE);
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE).
  - Elective courses relevant to the student’s area of research (2.0 FCEs).

Program Requirements for MHSc Transfer Students

- **Coursework.** Students who transfer from the MHSc program in Biomedical Engineering must complete the total course requirements for both degrees: 4.0 FCEs at the master’s level plus 1.0 FCE at the PhD level, for a total of 5.0 FCEs.
  - BME1405H Clinical Engineering Instrumentation I (0.5 FCE) and BME1436H Clinical Engineering Surgery (0.5 FCE).
  - Students must complete two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE);
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE);
  - Two half-course electives relevant to the student’s area of research (1.0 FCE).
  - BME4444Y Practical Experience Course (1.0 FCE) in health-care facilities, the medical device industry, or health-care consulting firms. The practical experience course must total a minimum of 625 hours.

Program Length

4 years

Time Limit

6 years
All PhD Students

- Students are expected to pursue a thesis topic relevant to at least one of the following Biomedical Engineering research fields: 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; and 4) Neural/Sensory Systems and Rehabilitation.
- Within 12 months of registration, students must pass a qualifying examination covering the broad field of biomedical engineering appropriate to their background.
- Successful completion of a thesis, representing an original investigation in biomedical engineering.
- Students will continue to meet with their supervisory committee at least once every 12 months until recommendation for the departmental oral examination is made. On the recommendation of the supervisory committee and special approval from their department Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental oral examination and proceed directly to the Doctoral Final Oral Examination.
- Students must participate in:
  - Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE);
  - JDE1000H Ethics in Research (0.0 FCE);
  - Health and safety training workshops.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the institute’s additional admission requirements stated below.
- Direct entry with a bachelor's degree may be considered in exceptional cases. Applicants must have an undergraduate degree in dentistry, engineering, medicine, or one of the physical or biological sciences.

Program Requirements

- Coursework. Normally, students must complete 3.0 full-course equivalents (FCEs) including:
  - Two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE); or
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE).
  - Elective courses relevant to the student's area of research (2.0 FCEs).
- Students are also expected to pursue a thesis topic relevant to at least one of the following Biomedical Engineering research fields: 1) Biomaterials, Tissue Engineering and Regenerative Medicine; 2) Engineering in a Clinical Setting; 3) Nanotechnology, Molecular Imaging and Systems Biology; and 4) Neural/Sensory Systems and Rehabilitation.
- Successful completion of a thesis, representing an original investigation in biomedical engineering.
- Students will continue to meet with their supervisory committee at least once every 12 months until recommendation for the departmental oral examination is made. On the recommendation of the supervisory committee and special approval from their department Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental oral examination and proceed directly to the Doctoral Final Oral Examination.
- Students must participate in:
  - Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE);
  - JDE1000H Ethics in Research (0.0 FCE);
  - Health and safety training workshops.

Program Length

5 years

Time Limit

7 years

Biomedical Engineering: Biomedical Engineering PhD; Field: 5 Clinical Engineering

Doctor of Philosophy

Program Description

The PhD program offers courses and a strong research thesis component. Students emerge from this program ready to pursue careers in academia, medicine, industry, and government. Students with a particular interest in conducting biomedical engineering research with a primary clinical focus may pursue a field in clinical engineering within the Biomedical Engineering PhD program.

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate master's degree; 2) transfer from the University of Toronto MASc or MHSc program; or 3) direct entry following completion of an appropriate bachelor's degree.

Field: Clinical Engineering

Effective January 2021, admissions to this field have been administratively suspended.
PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the institute's additional admission requirements stated below.
- Applicants must have a master's degree in dentistry, engineering, medicine, or one of the physical or biological sciences with an overall average of at least B+ (3.3 grade point average [GPA]) from a recognized university.

Program Requirements

- **Coursework.** Normally, students must complete at least 1.0 full-course equivalent (FCE) including:
  - Two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE);
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE)
  - If a student does not have a formal degree in clinical engineering, 0.5 FCE from one of the BME clinical engineering courses (BME1405H, BME1436H, BME1439H, or BME4444Y) is required. A student who possesses protracted professional engineering experience (five or more years) will be exempt from this requirement.
- Students must (1) conduct their research in a clinical environment and (2) be co-supervised by both engineering and health science faculty. The primary supervisor must be BME-appointed; however, the co-supervisor could be from a clinical unit other than BME but must be appointed to SGS.
- Within 12 months of registration, students must pass a qualifying examination covering the broad field of biomedical engineering appropriate to their background.
- Successful completion of a thesis, representing an original investigation in biomedical engineering.
- Students will continue to meet with their supervisory committee at least once every 12 months until recommendation for the departmental oral examination is made. On the recommendation of the supervisory committee and special approval from their department Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental oral examination and proceed directly to the Doctoral Final Oral Examination.
- Students must participate in:
  - Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE);
  - JDE1000H Ethics in Research (0.0 FCE);
  - Health and safety training workshops.

Program Length

- 4 years

Time Limit

- 6 years

PhD Program (Transfer)

Transfer Requirements

- Highly qualified master's students (MHSc students in Clinical Engineering or MASc students in any field) may be considered for transfer into the PhD program in any of the five research fields. To be eligible to transfer to the PhD, Clinical Engineering MHSc students must complete 3.0 full-course equivalents (FCEs) within the MHSc curriculum.
- MHSc students who transfer to the PhD in the field of Clinical Engineering must fulfill the PhD program requirements listed below. MHSc students who transfer to the other PhD fields must fulfill the program requirements of the PhD field as described in the applicable section.

Program Requirements for MASc Transfer Students

- **Coursework.** Students who transfer from the MASc program in Biomedical Engineering must complete the total course requirements for both degrees: 2.0 full-course equivalents (FCEs) at the master's level plus 1.0 FCE at the PhD level, for a total of 3.0 FCEs.
  - Students must complete two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE);
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE).
  - Elective courses relevant to the student's area of research (2.0 FCEs).
  - If a student does not have a formal degree in clinical engineering, 0.5 FCE from one of the BME clinical engineering courses (BME1405H, BME1436H, BME1439H, or BME4444Y) is required. A student who possesses protracted professional engineering experience (five or more years) will be exempt from this requirement.

Program Requirements for MHSc Transfer Students

- **Coursework.** Students who transfer from the MHSc program in Biomedical Engineering must complete the total course requirements for both degrees: 4.0 FCEs at the master's level plus 1.0 FCE at the PhD level, for a total of 5.0 FCEs.
  - BME1405H Clinical Engineering Instrumentation I (0.5 FCE) and BME1436H Clinical Engineering Surgery (0.5 FCE).
  - Students must complete two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE);
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE).
  - Two half-course electives relevant to the student's area of research (1.0 FCE).
  - BME4444Y Practical Experience Course (1.0 FCE) in health-care facilities, the medical device industry, or health-care consulting firms. The practical experience course must total a minimum of 625 hours.
If a student does not have a formal degree in clinical engineering, 0.5 FCE from one of the BME clinical engineering courses (BME1405H, BME1436H, BME1439H, or BME4444Y) is required. A student who possesses protracted professional engineering experience (five or more years) will be exempt from this requirement.

All PhD Students

- Students must (1) conduct their research in a clinical environment and (2) be co-supervised by both engineering and health science faculty. The primary supervisor must be BME-appointed; however, the co-supervisor could be from a clinical unit other than BME but must be appointed to SGS.
- Within 12 months of registration, students must pass a qualifying examination covering the broad field of biomedical engineering appropriate to their background.
- Successful completion of a thesis, representing an original investigation in biomedical engineering.
- Students will continue to meet with their supervisory committee at least once every 12 months until recommendation for the departmental oral examination is made. On the recommendation of the supervisory committee and special approval from their department Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental oral examination and proceed directly to the Doctoral Final Oral Examination.
- Students must participate in:
  - Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE);
  - JDE1000H Ethics in Research (0.0 FCE);
  - Health and safety training workshops.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the institute’s additional admission requirements stated below.
- Direct entry with a bachelor's degree may be considered in exceptional cases. Applicants must have an undergraduate degree in dentistry, engineering, medicine, or one of the physical or biological sciences.

Program Requirements

- Coursework. Normally, students must complete 3.0 full-course equivalents (FCEs) including:
  - Two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
  - BME1478H Coding for Biomedical Engineers (0.5 FCE);
  - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE).
- Elective courses relevant to the student’s area of research (2.0 FCEs).
- If a student does not have a formal degree in clinical engineering, 0.5 FCE from one of the BME clinical engineering courses (BME1405H, BME1436H, BME1439H, or BME4444Y) is required. A student who possesses protracted professional engineering experience (five or more years) will be exempt from this requirement.
- Students in the Clinical Engineering field must (1) conduct their research in a clinical environment and (2) be co-supervised by both engineering and health science faculty. The primary supervisor must be BME-appointed; however, the co-supervisor could be from a clinical unit other than BME but must be appointed to SGS.
- Within 12 months of registration, students must pass a qualifying examination covering the broad field of biomedical engineering appropriate to their background.
- Successful completion of a thesis, representing an original investigation in biomedical engineering.
- Students will continue to meet with their supervisory committee at least once every 12 months until recommendation for the departmental oral examination is made. On the recommendation of the supervisory committee and special approval from their department Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental oral examination and proceed directly to the Doctoral Final Oral Examination.
- Students must participate in:
  - Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE);
  - JDE1000H Ethics in Research (0.0 FCE);
  - Health and safety training workshops.

Program Length

5 years

Time Limit

7 years

Biomedical Engineering: Clinical Engineering MHSc

Effective January 1, 2021, admissions have been administratively suspended.

Master of Health Science

Program Description

The MHSc program educates students on how to apply and implement medical technologies to optimize modern health-care delivery. This professional degree program consists of academic courses and a research thesis and provides students with real-world exposure through a practical experience course with a private sector company, a hospital, or a research facility.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the institute's additional admission requirements stated below.
- Selected students with a four-year bachelor's degree in engineering, medicine, dentistry, or one of the physical or biological sciences from a recognized university, with a mid-B (3.0 grade point average [GPA]) or higher in the final two years of study or over senior-level courses.

Program Requirements

- **Coursework.** Students must normally complete 4.0 full-course equivalents (FCEs) as follows:
  - BME1405H Clinical Engineering Instrumentation I (0.5 FCE) and BME1436H Clinical Engineering Surgery (0.5 FCE)
  - Two of the following (1.0 FCE):
    - BME1477H Biomedical Engineering Project Design and Execution (0.5 FCE);
    - BME1478H Coding for Biomedical Engineers (0.5 FCE); or
    - BME1479H Statistical Discovery Techniques for Biomedical Researchers (0.5 FCE)
  - Two half-course electives relevant to the student's area of research (1.0 FCE).
  - BME4444Y Practical Experience Course (1.0 FCE) in health-care facilities, the medical device industry, or health-care consulting firms. The practical experience course must total a minimum of 625 hours.
- Students must participate in:
  - Either BME1010H or BME1011H Graduate Seminar series (0.0 FCE) and
  - JDE1000H Ethics in Research (0.0 FCE).
- Successful completion of a *thesis*.

Program Length

6 sessions full-time (typical registration sequence: F/N/S/F/N/S)

Time Limit

3 years full-time

Biomedical Engineering: Biomedical Engineering MAsc, MEng, PhD, Clinical Engineering MHSc Courses

Not all courses are offered every year. Students should contact the BME office for information about course availability. Outlines of these and other closely related courses may be obtained from the BME office.

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<td>BME1460H</td>
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<td>BME1540H</td>
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<td>BME1550H</td>
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<td>BME1560H</td>
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Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Developmental Biology**
  - Cell and Systems Biology, MSc, PhD

- **Genome Biology and Bioinformatics**
  - Cell and Systems Biology, PhD

- **Neuroscience**
  - Cell and Systems Biology, MSc, PhD

Overview

Students undertaking graduate programs in the Department of Cell and Systems Biology pursue research related to fundamental mechanisms in the growth, development, and behaviour of organisms ranging from unicellular microbes to more complex organisms in the plant and animal kingdoms. Research projects extend from the molecular level to that of whole organisms interacting with each other and their environment.

Students enjoy state-of-the-art facilities and make use of cutting-edge approaches including functional genomics, genetics, metabolomics, proteomics, bioinformatics, computational biology, cell biology, developmental biology, molecular biology, and physiology.

Contact and Address

Web: csb.utoronto.ca
Email: grad.csb@utoronto.ca
Telephone: (416) 978-8879
Fax: (416) 978-8532

Department of Cell and Systems Biology
University of Toronto
Ramsay Wright Building
Room 424, 25 Harbord Street
Toronto, Ontario M5S 3G5
Canada
The MSc program in Cell and Systems Biology provides ideal training for career paths in education, business, and policy where science-based decision-making and the interpretation and transmission of scientific information are becoming increasingly important, particularly in many of the “knowledge-based” economies that are emerging the world over.

The MSc program trains scientists who are well suited to fill this demand. The program’s objective is to provide students with skills in the generation, critical evaluation, assessment, and communication of data so that they are equipped to proceed with further post-graduate degrees, or other career opportunities where such skills are desired.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Cell and Systems Biology’s additional admission requirements stated below.
- An appropriate bachelor’s degree with high academic standing from a recognized university, with a B+ (or equivalent) average in the final year of the bachelor’s program, and a mid-B overall average in the previous year of study.

Program Requirements

- Complete 0.5 full-course equivalent (FCE) of approved graduate coursework.
- Complete the CSB1010Y MSc Seminar Series (1.0 FCE, minimum 24 seminars per year).
- Complete a thesis based on a research project.
- Give a public presentation of thesis research and defend the thesis at an oral examination.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time

Cell and Systems Biology: Cell and Systems Biology PhD

Doctor of Philosophy

Program Description

The PhD program in Cell and Systems Biology trains scientists who will form part of the next generation of independent researchers in cell, molecular, and systems biology. Graduates will be the future high-level teachers, frontier expanders, and decision-makers in these fields of inquiry.

PhD graduates are expected to emerge from the program as independent and autonomous scientists, producing a written thesis that describes original research that stands as a testimony to their ability to generate publishable, stand-alone contributions to the peer-reviewed scientific literature. As part of their training, PhD students acquire skills in the communication of scientific research (including teaching skills), and acquire broad-based knowledge of the theory and practice underpinning their chosen field.

Applicants may enter the PhD program via one of three routes: 1) following completion of an MSc degree; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion of an honours bachelor’s degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Cell and Systems Biology’s additional admission requirements stated below.
- Students will be admitted only when they have made arrangements to secure a research supervisor by contacting professors in the department.
- Applicants may be accepted who already hold an MSc degree from a recognized university, with a grade average equivalent to at least a University of Toronto A– during the MSc.
Program Requirements

- Students must successfully complete:
  - 1.0 full-course equivalent (FCE) of approved graduate coursework.
  - CSB1011Y PhD Seminar Series (1.0 FCE, minimum 24 seminars per year).
  - A PhD proposal, which involves three components:
    - preparation of a written research proposal
    - presentation to the department and questioning by the public
    - in-camera questioning by a PhD proposal examination committee immediately following the public presentation.
  - Their proposal examination between 13 and 20 months after the start date of enrolment in their graduate program.

- Students must submit a thesis and defend it at a Doctoral Final Oral Examination conducted by the School of Graduate Studies.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Cell and Systems Biology’s additional admission requirements stated below.
- Applicants will be admitted only when they have made arrangements to secure a research supervisor by contacting professors in the department.
- Exceptional applicants with a BSc degree may be accepted by direct entry into the PhD program, with a grade point average equivalent to a University of Toronto A– or better in the final year of the BSc. Direct-entry PhD candidates should also display evidence of research potential.

Program Requirements

Students must:

- Be in good academic standing at the end of Year 1.
- Successfully complete 1.0 full-course equivalent (FCE) of approved graduate coursework. Those who transfer into the PhD program from the MSc may apply 0.5 graduate FCE towards the PhD course requirements.
- Successfully complete CSB1011Y PhD Seminar Series (1.0 FCE, minimum 24 seminars per year).
- Successfully complete a PhD transfer examination between 13 and 20 months after the start date of enrolment in their graduate program. The transfer examination involves three components:
  - preparation of a written research proposal
  - presentation to the department and questioning by the public
  - in-camera questioning by a PhD proposal examination committee immediately following the public presentation.
- Deliver two public seminars in the department based on their thesis research.
- Submit a thesis and defend it at a Doctoral Final Oral Examination conducted by the School of Graduate Studies.

Program Length

5 years
Time Limit
7 years

Cell and Systems Biology: Cell and Systems Biology MSc, PhD Courses

Consult the graduate unit regarding course availability.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CSB1010Y</td>
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<tr>
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<td>PhD Seminar Series</td>
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<tr>
<td>CSB1018H</td>
<td>Advanced Microscopy and Imaging</td>
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<tr>
<td>CSB1020H</td>
<td>Topics in Cell and Systems Biology</td>
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<tr>
<td>CSB1025H</td>
<td>Methods in Genomics and Proteomics</td>
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<td>CSB1472H</td>
<td>Computational Genomics and Bioinformatics</td>
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<tr>
<td>CSB1482H</td>
<td>Readings in Genome Biology and Bioinformatics</td>
</tr>
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</table>

Course that continues over a program. The course is graded when completed.
Chemical Engineering and Applied Chemistry

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Biomedical Engineering**
  - Chemical Engineering and Applied Chemistry, MASc, PhD

- **Cardiovascular Sciences**
  - Chemical Engineering and Applied Chemistry, MASc, PhD

- **Engineering Education**
  - Chemical Engineering and Applied Chemistry, MASc, MEng, PhD

- **Environmental Studies**
  - Chemical Engineering and Applied Chemistry, MASc, MEng, PhD

- **Environment and Health**
  - Chemical Engineering and Applied Chemistry, MASc, MEng, PhD

- **Genome Biology and Bioinformatics**
  - Chemical Engineering and Applied Chemistry, PhD

- **Global Health (U of T Global Scholar)**
  - Chemical Engineering and Applied Chemistry, MASc, MEng, PhD

- **Neuromodulation**
  - Chemical Engineering and Applied Chemistry, MASc, PhD

- **Next-Generation Precision Medicine**
  - Chemical Engineering and Applied Chemistry, PhD

**Overview**

The Department of Chemical Engineering and Applied Chemistry offers graduate research in pure science, engineering fundamentals, and engineering applications. The department attracts a dynamic professorial staff with outstanding international reputations. Many graduate students work closely with industrial partners during their studies. Research is funded by the government and industry, often by means of a consortium of companies. The experience of dealing with real-world problems prepares graduates for successful professional careers.

Research and teaching are the foundations of the department. Research is clustered into eight major categories:

- Biomolecular and Biomedical Engineering
- Bioprocess Engineering
- Chemical and Materials Process Engineering
- Engineering Informatics
- Environmental Science and Engineering
- Pulp and Paper
- Surface and Interface Engineering
- Sustainable Energy

**Contact and Address**

Web: chem-eng.utoronto.ca
Admissions email: admissgrad.chemeng@utoronto.ca
General email: gradassist.chemeng@utoronto.ca
Telephone: (416) 946-3987
Fax: (416) 978-8605
Chemical Engineering and Applied Chemistry: Graduate Faculty

Full Members

Acosta, Edgar Joel - BS, MS, PhD
Allen, Christine - BSc, PhD, PhD
Allen, Grant - BASc, MASc, PhD
Amon, Cristina - BASc, MSc, ScD
Aspuru-Guzik, Alan - PhD
Azimi, Gisele - BASc, MASc, PhD
Bender, Timothy - PhD
Chan, Arthur - BS, MSc, PhD
Chan, Warren - BSc, PhD
Cheng, Yu-Ling - SB, PhD
Chin, Cathy Ya Huei - BSc, MSc, PhD
Chow, Chung-Wai - MD, PhD
Cluett, William - BSc, PhD
Coyle, Tom - BS, BA, ScD
DeMartini, Nikolai - BSc, MSc, PhD
Diosady, Levente - BASc, MASc, PhD
Edwards, Elizabeth - BEng, PhD
Evans, Greg - PhD
Farnood, Ramin - BASc, MASc, PhD (Chair and Graduate Chair)
Goh, M. Cynthia - PhD
Gu, Frank - BSc, PhD
Iakounine, Alexander - MSc, ScD
Kirk, Donald - BASc, MASc, PhD
Kortschot, Mark - BASc, MASc, PhD
Lawryshyn, Yuri - Diplng, BASc, MASc, MBA, PhD
Lawson, Christopher - PhD
Mahadevan, Radhakrishnan - BTech, PhD
Master, Emma - BSc, PhD
McGuigan, Alison - MEng, PhD
Moore, Emily - BASc, DPhil
Moosavi, Mohamad - PhD
Newman, Roger Charles - BA, PhD, DSc
Papangelakis, Vladimiro - MEng, PhD
Radisic, Milica - BEng, PhD
Ramchandran, Arun - PhD
Santerre, Paul - BSc, MSc, PhD
Saville, Bradley - BSc, PhD
Sefton, Michael - BASc, ScD
Shoichet, Molly - PhD (Associate Chair and Graduate Coordinator)
Thomson, Murray - BSc, PhD
Wania, Frank - MPH, PhD
Werber, Jay - MPH, PhD
Winnik, Mitchell - BA, PhD
Yan, Ning - BSc, PhD, PEng
Yip, Christopher - BSc, PhD

Members Emeriti

Tran, Honghi - PhD

Associate Members

Farmer, Jennifer - BSc, PhD
Galatro, Daniela - MSc
Mannar, M.G. Venkatesh - BSChE, MS
Rottmann, Cindy - BSc, BE, AM, DPhil
Tran, Helen - PhD
Tremaine, Peter - BSc, PhD

Chemical Engineering and Applied Chemistry: Chemical Engineering and Applied Chemistry MASc

Master of Applied Science

Program Description

The MASc program is ideal for students who aspire to a rewarding career in research, whether in academia or industry. It is a stepping stone to a doctoral (PhD) degree.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemical Engineering and Applied Chemistry’s additional admission requirements stated below.
- A four-year degree (or equivalent) in engineering or the physical/chemical/biological sciences with a B+ average (or equivalent) in each of the last two years of full-time study.

Program Requirements

- Each student should discuss possible research projects with several members of the department before selecting a research area and a supervisor. Students must complete a thesis on a research topic.
- Coursework. Students must successfully complete a total of 1.5 full-course equivalents [FCEs] (three graduate half courses) as follows:
  - One of these courses must be CHE1102H Research Methods and Project Execution (0.5 FCE), typically completed in Year 1.
  - At least one course must be selected in an area outside the student’s area of research.
  - Only one 500-level course may be taken for credit towards the degree program.
- All Year 1 and Year 2 students must complete CHE3001H Leading Edge Seminar Series in Chemical Engineering and Applied Chemistry (Credit/No Credit; 0.0 FCE) in both the Fall and Winter sessions.
- Students must complete CHE3012Y MASc Research (Credit/No Credit; 0.0 FCE) in Year 1, and in subsequent years if recommended by their advisory committee.
- Students must also complete CHE222H Safety Workshop (0.0 FCE) and JDE1000H Ethics in Research.
The program requires a minimum full-time residence of two sessions (eight months). This means students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.

Program Length
6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit
3 years full-time

* Course that may continue over a program. The course is graded when completed.

Chemical Engineering and Applied Chemistry: Chemical Engineering and Applied Chemistry MEng

Master of Engineering

Program Description
The MEng program is designed for engineers who wish to enhance their career opportunities in as little as one year of full-time study. Students undergo advanced professional training that is respected by employers and differentiates them in a crowded marketplace. The MEng program differs from the MASc and PhD programs in that it is oriented to learning through prescribed courses rather than through research.

The MEng program can be taken on a full-time, extended full-time, or part-time basis. The part-time option is intended primarily for engineers in full-time professional practice.

Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemical Engineering and Applied Chemistry’s additional admission requirements stated below.
- A Bachelor of Engineering (BEng) or Bachelor of Applied Science (BASc) degree in engineering with at least a mid-B (or equivalent) in each of the last two years of full-time study.

Program Requirements

- The MEng program normally requires completion of:
  - a total of 5.0 full-course equivalents (FCEs) or
  - 3.5 FCEs plus a 1.5-FCE project supervised by a faculty member. At the discretion of the supervisor, a second reviewer and/or oral defence may be requested for students who plan to enter the doctoral program.
- Students normally complete the requirements in three sessions (one year).
- Students have the option of completing an emphasis in Advanced Manufacturing; Advanced Soft Materials; Advanced Water Technologies; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Environmental Engineering Consulting; Forensic Engineering; or Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.

Program Length
3 sessions (typical registration sequence: F/W/S)

Time Limit
3 years

Extended Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemical Engineering and Applied Chemistry’s additional admission requirements stated below.
- A Bachelor of Engineering (BEng) or Bachelor of Applied Science (BASc) degree in engineering with at least a mid-B (or equivalent) in each of the last two years of full-time study.

Program Requirements

- The MEng program normally requires completion of:
  - a total of 5.0 full-course equivalents (FCEs) or
  - 3.5 FCEs plus a 1.5-FCE project supervised by a faculty member. At the discretion of the supervisor, a second reviewer and/or oral defence may be requested for students who plan to enter the doctoral program.
- Students normally complete the requirements in three sessions (one year).
- Students have the option of completing an emphasis in Advanced Manufacturing; Advanced Soft Materials; Advanced Water Technologies; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Environmental Engineering Consulting; Forensic Engineering; or Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.

Program Length
6 sessions (typical registration sequence: F/W/S/F/W/S)**
Time Limit

3 years

** Students may begin the program at different times.

Part-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemical Engineering and Applied Chemistry's additional admission requirements stated below.
- A Bachelor of Engineering (BEng) or Bachelor of Applied Science (BASc) degree in engineering with at least a mid-B (or equivalent) in each of the last two years of full-time study.

Program Requirements

- The MEng program normally requires completion of:
  - a total of 5.0 full-course equivalents (FCEs) or
  - 3.5 FCEs plus a 1.5-FCE project supervised by a faculty member. At the discretion of the supervisor, a second reviewer and/or oral defence may be requested for students who plan to enter the doctoral program.
- Students normally complete the requirements in nine sessions (three years). They are limited to four half courses per year and two half courses per session.
- Students have the option of completing an emphasis in Advanced Manufacturing; Advanced Soft Materials; Advanced Water Technologies; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Environmental Engineering Consulting; Forensic Engineering; or Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.

Program Length

9 sessions

Time Limit

6 years

Chemical Engineering and Applied Chemistry: Chemical Engineering and Applied Chemistry PhD

Doctor of Philosophy

Program Description

The PhD program is designed for students who wish to become an expert in a specific research area and is a stepping stone to a career in academia. Students work alongside world-renowned researchers while gaining profound depth and experience in their field of study.

Applicants may enter the program via one of three routes: 1) following completion of an MASc degree; 2) transfer from the University of Toronto MASc program after completing one year; or 3) direct entry following completion of a bachelor's degree, in exceptional cases. The program can also be taken on a flexible-time basis.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemical Engineering and Applied Chemistry's additional admission requirements stated below.
- B+ (or equivalent) in each of the last two years of full-time study in the undergraduate program, and successful completion of a research master's degree with an overall average of at least B+ (or equivalent).
- Applicants may enter the PhD program following completion of an MASc program with a minimum B+ average and exceptional all-around scientific and intellectual ability as evidenced from theoretical or experimental research, academic standing, initiative, and publication record.

Program Requirements

- Coursework. Students must successfully complete at least 2.0 full-course equivalents (FCEs) (four graduate half courses).
  - One course must be CHE1102H Research Methods and Project Execution (0.5 FCE) taken once during the program, typically in Year 1.
  - Courses must be selected from the calendar and approved by the student's supervisor and the Graduate Coordinator. At least one of these courses must be taken in a secondary area of study. It is recommended that one of these courses should be selected from Category A: fundamental courses.
  - Normally, PhD students are not allowed to take a 500-level course for credit towards the degree program.
- Within 13 months of starting the PhD program, students must pass a qualifying examination.
- All Year 1, Year 2, Year 3, and Year 4 students must complete CHE3001H Leading Edge Seminar Series in Chemical Engineering and Applied Chemistry (Credit/No Credit; 0.0 FCE) in both the Fall and Winter sessions.
- Students must complete CHE3010Y PhD Research (Credit/No Credit; 0.0 FCE) at least once per year.
- If not already completed, students must take CHE2222H Safety Workshop (0.0 FCE) and JDE1000H Ethics in Research.
- Thesis on a research topic.
- Students normally remain in residence (full-time, on campus) until the departmental recommendation for the Doctoral Final Oral Examination is made, unless special permission to do so has otherwise been granted by the departmental Graduate Studies Committee.
• Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.

Program Length

4 years

Time Limit

6 years

PhD Program (Transfer)

Transfer Requirements

• B+ (or equivalent) in each of the last two years of full-time study in the undergraduate program.
• Applicants may enter the PhD program by transferring from the University of Toronto MASc program after completing one year; such students must successfully complete a bypass examination.
• International applicants with a master's degree from outside Canada or the United States may be asked to register in the MASc program and follow the transfer route of entry.

Program Requirements

• Coursework. Students must successfully complete at least 3.0 full-course equivalents (FCEs) (six graduate half courses) and do not have to take a separate PhD qualifying examination.
  o One course must be CHE1102H Research Methods and Project Execution (0.5 FCE) taken once during the program, typically in Year 1.
  o Courses must be selected from the calendar and approved by the student's supervisor and the Graduate Coordinator. At least one of these courses must be taken in a secondary area of study. It is recommended that one of these courses should be selected from Category A: fundamental courses.
  o Normally, PhD students are not allowed to take a 500-level course for credit towards the degree program.
• All Year 1, Year 2, Year 3, and Year 4 students must complete CHE3001H Leading Edge Seminar Series in Chemical Engineering and Applied Chemistry (Credit/No Credit; 0.0 FCE) in both the Fall and Winter sessions.
• Students must complete CHE3010Y PhD Research (Credit/No Credit; 0.0 FCE) at least once per year.
• If not already completed, students must take CHE2222H Safety Workshop (0.5 FCE) and JDE1000H Ethics in Research.
• Thesis on a research topic.
• Students normally remain in residence (full-time, on campus) until the departmental recommendation for the Doctoral Final Oral Examination is made, unless special permission to do so has otherwise been granted by the departmental Graduate Studies Committee.
• Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.

PhD Program (Direct-Entry)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemical Engineering and Applied Chemistry's additional admission requirements stated below.
• Minimum A– average in each of the final two years of study in the undergraduate program, and participation in a research project (either through an undergraduate thesis or through research conducted in a lab).

Program Requirements

• Coursework. Students must successfully complete at least 3.0 full-course equivalents (FCEs) (six graduate half courses).
  o One course must be CHE1102H Research Methods and Project Execution (0.5 FCE) taken once during the program, typically in Year 1.
  o Courses must be selected from the calendar and approved by the student's supervisor and the Graduate Coordinator. At least one of these courses must be taken in a secondary area of study. It is recommended that one of these courses should be selected from Category A: fundamental courses.
  o Normally, PhD students are not allowed to take a 500-level course for credit towards the degree program.
• Within 13 months of starting the PhD program, students must pass a qualifying examination.
• All Year 1, Year 2, Year 3, and Year 4 students must complete CHE3001H Leading Edge Seminar Series in Chemical Engineering and Applied Chemistry (Credit/No Credit; 0.0 FCE) in both the Fall and Winter sessions.
• Students must complete CHE3010Y PhD Research (Credit/No Credit; 0.0 FCE) at least once per year.
• If not already completed, students must take CHE2222H Safety Workshop (0.5 FCE) and JDE1000H Ethics in Research.
• Thesis on a research topic.
• Students normally remain in residence (full-time, on campus) until the departmental recommendation for the Doctoral Final Oral Examination is made, unless special permission to do so has otherwise been granted by the departmental Graduate Studies Committee.
• Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.
Program Length
5 years

Time Limit
7 years

PhD Program (Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemical Engineering and Applied Chemistry's additional admission requirements stated below.
- B+ (or equivalent) in each of the last two years of full-time study in the undergraduate program, and successful completion of a research master's degree with an overall average of at least B+ (or equivalent).
- Applicants may enter the PhD following completion of an MASc program with a minimum B+ average and exceptional all-around scientific and intellectual ability as evidenced from theoretical or experimental research, academic standing, initiative, and publication record.
- Applicants to the flexible-time PhD option are accepted under the same admission requirements as applicants to the full-time PhD option. However, applicants to the flexible-time PhD option must also demonstrate that they are actively engaged in professional activities related to their proposed program of study.

Program Requirements

- Students in the flexible-time option will be subject to the same requirements as students in the full-time option.
- Coursework. Students must successfully complete at least 2.0 full-course equivalents (FCEs) (four graduate half courses).
  - One course must be CHE1102H Research Methods and Project Execution (0.5 FCE) taken once during the program, typically in Year 1.
  - Courses must be selected from the calendar and approved by the student's supervisor and the Graduate Coordinator. At least one of these courses must be taken in a secondary area of study. It is recommended that one of these courses should be selected from Category A: fundamental courses.
  - Normally, PhD students are not allowed to take a 500-level course for credit towards the degree program.
- Within 16 months of starting the PhD program, students must pass a qualifying examination.
- All Year 1, Year 2, Year 3, and Year 4 students must complete CHE3001H Leading Edge Seminar Series in Chemical Engineering and Applied Chemistry (Credit/No Credit; 0.0 FCE) in both the Fall and Winter sessions.
- Students must complete CHE3010Y PhD Research (Credit/No Credit; 0.0 FCE) at least once per year.
- If not already completed, students must take CHE2222H Safety Workshop (0.5 FCE) and JDE1000H Ethics in Research.
- Thesis on a research topic.

- Students normally remain in residence (full-time, on campus) until the departmental recommendation for the Doctoral Final Oral Examination is made, unless special permission to do so has otherwise been granted by the departmental Graduate Studies Committee.
- Students in the PhD program have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Chemical Engineering and Applied Chemistry MASc, MEng, PhD Emphases section.
MIE1721H, MIE1723H, MIE1727H, TEP1011H, TEP1026H, TEP1501H.

Emphasis: Advanced Soft Materials (MEng only)

MEng students must successfully complete any four half courses (2.0 full-course equivalents [FCEs]) from the following list:


Students may double-count one course at most towards any CHE emphasis, or towards any other emphasis in the Faculty.

Emphasis: Advanced Water Technologies (MEng only)

MEng students must successfully complete a total of 2.0 full-course equivalents (four half courses).

Core Courses

Students must select at least one of the following (0.5 FCE):

- CHE1150H Industrial Water Technology
- CIV1308H Physical and Chemical Treatment Processes
- CIV1309H Biological Treatment Processes
- CIV1311H Advanced and Sustainable Drinking Water Treatment

Students may select an additional course (0.5 FCE) from the list above, or they must select one (0.5 FCE) of the following:

- CHE565H1 Aqueous Process Engineering
- CIV541H1 Environmental Biotechnology
- CIV550H1 Water Resources Engineering
- CIV1303H Water Resources Systems Modeling
- CIV1319H Chemistry and Analysis of Water and Wastes
- CIV1330H Water, Sanitation, Hygiene, and Global Health
- CIV1398H New Topics in Civil and Mineral Engineering
- CME500H1 Fundamentals of Acid Rock Drainage
- CME549H1 Groundwater Flow and Contamination.

Specialization Courses

Students must select the remaining balance of courses (1.0 FCE) from the following, or from any of the core courses listed above:

- CHE1213H Corrosion
- CHE1430H Hydrometallurgy Theory and Practice
- JCC1313H Environmental Microbiology
- JNC2503H Environmental Pathways
- STA1004H Introduction to Experimental Design.

Enrolment and Completion

Students should contact Alison Morley (meng.civmin@utoronto.ca) to declare their interest, so that they can be notified of water engineering-related events and extracurricular activities.

To receive acknowledgment of the emphasis on their transcript, it is the student's responsibility to declare completion of the emphasis to their home department's graduate program administrator at the same time that they are requesting convocation. The student may also reach out to meng.civmin@utoronto.ca to confirm the completion of the emphasis.

Emphasis: Analytics (MEng only)

To be admitted to the emphasis in Analytics, MEng students must first successfully complete a prerequisite course APS1070H (0.5 full-course equivalent [FCE]).

Subsequently, to earn the emphasis, students must successfully complete four additional half courses (2.0 FCEs) from the list of core courses or elective courses. These must include at least one core course; the remaining courses must be selected from the list of elective courses.

Students must have completed the prerequisite course APS1070H before taking any of the core courses.

Prerequisite Course

APS1070H Foundations of Data Analytics and Machine Learning.

Core Courses

CHE1147H Data Mining in Engineering
EC1513H Introduction to Machine Learning (exclusions: CSC411H1, CSC2515H, ECE421H, ECE1504H)
MIE1624H Introduction to Data Science and Analytics (exclusion: MIE1626H)
MIE1626H Data Science Methods and Statistical Learning (exclusion: MIE1624H)
MSE1065H Application of Artificial Intelligence in Materials Design (exclusion: MSE1063H).

Elective Courses

Emphasis: Biomanufacturing (MEng only)

MEng students must successfully complete any four half courses (2.0 full-course equivalents [FCEs]) from the following list:


Students may double-count one course at most towards any CHE emphasis, or towards any other emphasis in the Faculty.

Emphasis: Engineering and Globalization (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) from the following lists, with at least two half courses (or one full course) taken from Group A.

Group A

APS510H1, APS530H, APS1420H, JCR1000Y (full-year course).

Group B

APS1015H, APS1020H, APS1024H, CHL5700H, CIV1399H.

Note: Students who choose to pursue an MEng project in their home department that aligns with the Centre for Global Engineering (CGEN)'s disciplinary focus, as deemed by the CGEN Director, may count the project as one required Group B course.

Students who complete the requirements of the emphasis in Engineering and Globalization and wish to obtain a notation on their transcript should contact the Faculty Graduate Studies office.

Emphasis: Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) (MEng only)

MEng students must successfully complete any four of the following courses (2.0 full-course equivalents [FCEs]):

Leadership


Entrepreneurship and Innovation

APS511H1, APS1012H, APS1013H, APS1015H, APS1023H, APS1033H, APS1035H, APS1036H, APS1041H, APS1061H, APS1088H.

Finance and Management


Engineering and Society

APS510H1, APS1018H, APS1024H, APS1025H, APS1031H, APS1034H, APS1101H, APS1420H.

Emphasis: Environmental Engineering Consulting (MEng only)

MEng students must successfully complete four courses (one core course and three elective courses; 2.0 full-course equivalents [FCEs]), including at least one core course (0.5 FCE) from the following list.

Core Courses


The remaining coursework may be taken from the list of elective courses.

Elective Courses

CHE561H1, CHE1150H, CHE1433H, CIV536H1, CIV541H1, CIV1308H, CIV1321H, CME500H1, JCC1313H, JNC2503H.

Emphasis: Forensic Engineering (MEng only)

MEng students must successfully complete four courses (one core course and three elective courses; 2.0 full-course equivalents [FCEs]).

Core Course

MSE1031H *Forensic Engineering*.

Elective Courses

Emphasis: Sustainable Energy (MASc, MEng, PhD)

MASc and PhD students must successfully complete:

- At least three half courses (1.5 full-course equivalents [FCEs]) from either of the following lists below.
- A thesis towards their degree on a topic related to sustainable energy. Topics must be approved by the steering committee of the Institute of Sustainable Energy. Contact: emphasis@cpe.utoronto.ca.

MEng students must successfully complete:

- Four half courses (2.0 FCEs) from either of the following lists below, including at least one core course (0.5 FCE).

Category A: Fundamental Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHE1100H</td>
<td>Fundamentals of Chemical Engineering</td>
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<tr>
<td>CHE1107H</td>
<td>Applied Mathematics</td>
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<tr>
<td>CHE1141H</td>
<td>Advanced Chemical Reaction Engineering</td>
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<tr>
<td>CHE1142H</td>
<td>Applied Chemical Thermodynamics</td>
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<tr>
<td>CHE1143H</td>
<td>Transport Phenomena</td>
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<tr>
<td>CHE1310H</td>
<td>Chemical Properties of Polymers</td>
</tr>
<tr>
<td>JTC1134H</td>
<td>Applied Surface and Interface Science</td>
</tr>
<tr>
<td>JTC1135H</td>
<td>Applied Surface Chemistry</td>
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</table>

Category B: Specialized Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS502H1</td>
<td>Financial Engineering</td>
</tr>
<tr>
<td>APS510H1</td>
<td>Innovative Technologies and Organizations in Global Energy Systems</td>
</tr>
<tr>
<td>APS530H1</td>
<td>Appropriate Technology and Design for Global Development</td>
</tr>
<tr>
<td>APS1001H</td>
<td>Project Management</td>
</tr>
<tr>
<td>APS1004H</td>
<td>Human Resource Management: An Engineering Perspective</td>
</tr>
<tr>
<td>APS1005H</td>
<td>Operations Research for Engineering Management</td>
</tr>
<tr>
<td>APS1009H</td>
<td>Natural Resources Management</td>
</tr>
<tr>
<td>APS1012H</td>
<td>Managing Business Innovation and Transformational Change</td>
</tr>
<tr>
<td>APS1013H</td>
<td>Applying Innovation in Engineering and Business Operations</td>
</tr>
<tr>
<td>APS1015H</td>
<td>Social Entrepreneurship</td>
</tr>
</tbody>
</table>

Contact

All students are asked to register with Climate Positive Energy (CPE) at emphasis@cpe.utoronto.ca, at the beginning of their studies, to receive information about energy-related activities and opportunities on campus. CPE also administers a number of awards and scholarships for which students may be eligible.

Chemical Engineering and Applied Chemistry: Chemical Engineering and Applied Chemistry MASc, MEng, PhD Courses

An updated course list and schedule is available on the departmental website at the beginning of each session listing the time and room location for each course. Not all courses are given every year.

All students wishing to undertake research and teaching in the Department of Chemical Engineering and Applied Chemistry must successfully complete an intensive occupational health and safety training workshop, CHE2222H Safety Workshop, which normally takes place during the week immediately preceding the commencement of graduate courses in the Fall. In each subsequent year of registration, students must take the Workplace Hazardous Materials Information System refresher workshop.

MASc students must complete CHE3012Y MASc Research (Credit/No Credit; 0.0 FCE) in Year 1, and in subsequent years if recommended by their advisory committee.

PhD students must complete CHE3010Y PhD Research (Credit/No Credit; 0.0 FCE) every year.

Students registered in a graduate degree program involving research are required to participate in the non-credit seminar course JDE1000H Ethics in Research during their first or second session of registration.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS1016H</td>
<td>Financial Management for Engineers</td>
</tr>
<tr>
<td>APS1017H</td>
<td>Supply Chain Management and Logistics</td>
</tr>
<tr>
<td>APS1018H</td>
<td>The Engineer in Society — Ethics, History, and Philosophy</td>
</tr>
<tr>
<td>APS1020H</td>
<td>International Business for Engineers</td>
</tr>
<tr>
<td>APS1022H</td>
<td>Financial Engineering II</td>
</tr>
<tr>
<td>APS1023H</td>
<td>New Production Innovation</td>
</tr>
<tr>
<td>APS1024H</td>
<td>Infrastructure Resilience Planning</td>
</tr>
<tr>
<td>APS1025H</td>
<td>Infrastructure Protection</td>
</tr>
<tr>
<td>APS1028H</td>
<td>Operations and Production Management for Manufacturing and Services</td>
</tr>
<tr>
<td>APS1031H</td>
<td>Infrastructure Planning</td>
</tr>
<tr>
<td>APS1032H</td>
<td>Introduction to Energy Project Management</td>
</tr>
<tr>
<td>APS1033H</td>
<td>Business Innovation Leading to the Future, Based on Imagineering</td>
</tr>
<tr>
<td>APS1034H</td>
<td>Making Sense of Accidents</td>
</tr>
<tr>
<td>APS1035H</td>
<td>Taking a New Venture to Market</td>
</tr>
<tr>
<td>APS1036H</td>
<td>Formative Experiential Entrepreneurial Learning (FEEL)</td>
</tr>
<tr>
<td>APS1043H</td>
<td>Writing Your Own Patent Application</td>
</tr>
<tr>
<td>APS1070H</td>
<td>Foundations of Data Analytics and Machine Learning</td>
</tr>
<tr>
<td>APS1088H</td>
<td>Entrepreneurship and Business for Engineers</td>
</tr>
<tr>
<td>APS1201H</td>
<td>Topics in Engineering and Public Policy 500-Level (undergraduate/graduate) Courses</td>
</tr>
<tr>
<td>APS1420H</td>
<td>Technology, Engineering, and Global Development</td>
</tr>
<tr>
<td>CHE507H1</td>
<td>Process Modelling and Simulation</td>
</tr>
<tr>
<td>CHE561H1</td>
<td>Risk Based Safety Management</td>
</tr>
<tr>
<td>CHE564H1</td>
<td>Pulp and Paper Processes</td>
</tr>
<tr>
<td>CHE565H1</td>
<td>Aqueous Process Engineering</td>
</tr>
<tr>
<td>CHE568H1</td>
<td>Nuclear Engineering</td>
</tr>
<tr>
<td>CHE1053H</td>
<td>Electrochemistry</td>
</tr>
<tr>
<td>CHE1108H</td>
<td>Numerical Methods in Chemical Engineering</td>
</tr>
<tr>
<td>CHE1123H</td>
<td>Liquid Biofuels</td>
</tr>
<tr>
<td>CHE1125H</td>
<td>Modelling and Optimization of Chemical and Biomedical Networks</td>
</tr>
<tr>
<td>CHE1134H</td>
<td>Advances in Bioengineering</td>
</tr>
<tr>
<td>CHE1135H</td>
<td>Regulatory Affairs for Industrial Biotechnology and Biopharmaceutical Products</td>
</tr>
<tr>
<td>CHE1147H</td>
<td>Data Mining in Engineering</td>
</tr>
<tr>
<td>CHE1148H</td>
<td>Process Data Analytics</td>
</tr>
<tr>
<td>CHE1150H</td>
<td>Industrial Water Technology</td>
</tr>
<tr>
<td>CHE1151H</td>
<td>Engineering Systems Sustainability</td>
</tr>
<tr>
<td>CHE1152H</td>
<td>Materials-Driven Separations (prerequisites: CHE210H1, CHE311H1, CHE323H1, or equivalent)</td>
</tr>
<tr>
<td>CHE1213H</td>
<td>Corrosion</td>
</tr>
<tr>
<td>CHE1333H</td>
<td>Biomaterials Engineering for Nanomedicine</td>
</tr>
<tr>
<td>CHE1334H</td>
<td>Organ-on-a-Chip Engineering</td>
</tr>
<tr>
<td>CHE1430H</td>
<td>Hydrometallurgy, Theory, and Practice (MEng only)</td>
</tr>
<tr>
<td>CHE1431H</td>
<td>Environmental Auditing (MEng only)</td>
</tr>
<tr>
<td>CHE1432H</td>
<td>Technical Aspects of Environmental Regulations (MEng only)</td>
</tr>
<tr>
<td>CHE1433H</td>
<td>Air Dispersion Modelling</td>
</tr>
<tr>
<td>CHE1434H</td>
<td>Six Sigma for Chemical Processes</td>
</tr>
<tr>
<td>CHE1435H</td>
<td>Fundamentals of Aerosol Physics and Chemistry</td>
</tr>
<tr>
<td>CHE1450H</td>
<td>Bioprocess Engineering (prerequisite: JCC1313H or equivalent)</td>
</tr>
<tr>
<td>CHE1471H</td>
<td>Modelling in Biological and Chemical Systems</td>
</tr>
<tr>
<td>CHE1475H</td>
<td>Biocomposite Materials</td>
</tr>
<tr>
<td>CHE3010Y</td>
<td>PhD Research (Credit/No Credit)</td>
</tr>
<tr>
<td>CHE3012Y</td>
<td>MASc Research (Credit/No Credit)</td>
</tr>
<tr>
<td>JCB1349H</td>
<td>Molecular Assemblies: Structure/Function/Properties</td>
</tr>
<tr>
<td>JCC1313H</td>
<td>Environmental Microbiology</td>
</tr>
<tr>
<td>JCR1000Y</td>
<td>An Interdisciplinary Approach to Addressing Global Challenges</td>
</tr>
<tr>
<td>JNC2503H</td>
<td>Environmental Pathways</td>
</tr>
<tr>
<td>JTC1331H</td>
<td>Biomaterials Science</td>
</tr>
<tr>
<td>TEP1010H</td>
<td>Cognitive and Psychological Foundations of Effective Leadership</td>
</tr>
<tr>
<td>TEP1011H</td>
<td>Authentic Leadership and Teaming</td>
</tr>
<tr>
<td>TEP1026H</td>
<td>Positive Psychology for Engineers</td>
</tr>
<tr>
<td>TEP1027H</td>
<td>Engineering Presentations</td>
</tr>
<tr>
<td>TEP1029H</td>
<td>The Science of Emotional Intelligence and its Application to Leadership</td>
</tr>
<tr>
<td>TEP1030H</td>
<td>Engineering Careers — Theories and Strategies to Manage Your Career for the Future</td>
</tr>
<tr>
<td>TEP1501H</td>
<td>Leadership and Leading in Groups and Organizations</td>
</tr>
<tr>
<td>TEP1502H</td>
<td>Leadership in Product Design</td>
</tr>
</tbody>
</table>
MASc and PhD Seminar Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE1102H</td>
<td>Research Methods and Project Execution</td>
</tr>
<tr>
<td>CHE3001H</td>
<td>Leading Edge Seminar Series in Chemical Engineering and Applied Chemistry (Credit/No Credit)</td>
</tr>
<tr>
<td>JDE1000H</td>
<td>Ethics in Research</td>
</tr>
</tbody>
</table>

In addition to the above courses, students may elect to take courses in other engineering or science departments where such courses are deemed relevant to the area of study. These courses require prior approval from the Graduate Coordinator.
Chemistry

Chemistry: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Chemistry

MSc

- Fields:
  - Analytical Chemistry;
  - Environmental Chemistry;
  - Inorganic Chemistry;
  - Interdisciplinary;
  - Organic and Biological Chemistry;
  - Physical Chemistry and Chemical Physics;
  - Polymers and Materials Chemistry

PhD

- Fields:
  - Analytical Chemistry;
  - Environmental Chemistry;
  - Inorganic Chemistry;
  - Interdisciplinary;
  - Organic and Biological Chemistry;
  - Physical Chemistry and Chemical Physics;
  - Polymers and Materials Chemistry

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Biomedical Engineering
  - Chemistry, MSc, PhD
- Environmental Studies
  - Chemistry, MSc, PhD
- Next-Generation Precision Medicine
  - Chemistry, PhD

Overview

Faculty members of the Department of Chemistry are world leaders and research offerings are made in a rich array of ever evolving sub-disciplines (physical, organic, biological, materials, inorganic, theoretical, analytical, environmental, and nanochemistry). Research is conducted using state-of-the-art instrumentation housed in laboratories that have been newly built or recently renovated.

Modern facilities are available for research in the Department of Chemistry. The areas of interest cover a wide variety of topics in analytical, biological, environmental, inorganic, organic, materials, polymers, physical, and theoretical chemistry and their related interdisciplinary areas.

Contact and Address

Web: www.chemistry.utoronto.ca
Email: chem.gradcoord@utoronto.ca
Telephone: (416) 978-3605
Fax: (416) 978-1631

Department of Chemistry
University of Toronto
Room 151, Lash Miller Building
80 St. George Street
Toronto, Ontario M5S 3H6
Canada

Chemistry: Graduate Faculty

Full Members

Abbatt, Jonathan - BSc, PhD
Al-awar, Rima - PhD
Aspuru-Guzik, Alan - PhD
Batey, Robert Alexander - BA, PhD
Brumer, Paul - BSc, PhD
Chan, Arthur - BS, MSc, PhD
Chin, Jik - MS, PhD
Cui, Haissi - PhD
Dhirani, Al-Amin - MSc, PhD
Donaldson, D. James - PhD
Fekl, Ulrich - MSc, PhD
Goh, M Cynthia - PhD
Gradinaru, Claudiu - PhD
Gunning, Patrick - BS, PhD
Houry, Walid - BS, MS, PhD
Howe, Jane - PhD
Izmaylov, Artur - PhD
Jockusch, Rebecca - BA, PhD
Kanelis, Voula - PhD
Kay, Lewis - PhD
Kerman, Kagan - BScPhm, MSc, ScD
Kluger, Ronald - AB, AM, PhD
Kraatz, Heinz-Bernhard - BA, MC, PhD
Kumacheva, Eugenia - MSc, PhD
Lautens, Mark - BSc, PhD (Chair and Graduate Chair)
Mabury, Scott - BS, PhD
McMillen, David - BSc, MS, PhD
Miller, R. J. Dwayne - BSc, PhD
Morris, Robert - BSc, PhD, Fellow NATO
Murphy, Jennifer - BCh, DChem
Nitz, Mark - BSc, PhD
Ogata, Alana - BS, PhD
Ozin, Geoffrey - BSc, PhD
Prosser, Scott - BSc, MSc, DPhil
Rousseaux, Sophie - PhD
Schofield, Jeremy - PhD
Seferos, Dwight - BCh, DChem
Segal, Dvira - BSc, DSc
Sherwood Lollar, Barbara - PhD
Shin, Jumi - AB, DPhil
Simpson, Andre - BSc, PhD
Simpson, Myrna - BS, DPhil
Song, Datong - BSc, PhD
Stephan, Douglas - BSc, PhD
Sultan, Ruby May - BSc, PhD
Taylor, Mark - BSc, DSc
Thompson, Michael - BSc, PhD, DSc, FRSC
Members Emeriti

Georges, Michael - BS, PhD
Jones, Bryan - BSc, PhD, DPhil
Kapral, Raymond - BSc, PhD
Krull, Ulrich - BSc, MSc, PhD
Macdonald, Peter - BS, MS, PhD
McLean, Stewart - BSc, PhD
Polanyi, John - MSc, PhD, DSc, FRSC, FRS
Reynolds, William - BSc, PhD
Robinson, Edward - BSc, PhD, DSc
Tidwell, Thomas - BA, AM, PhD
Whittington, Stuart - BA, MA, PhD

Associate Members

Browning, Scott - BSc, MSc, PhD
D’eon, Jessica - PhD
Dicks, Andy - PhD
Edgar, Landon - PhD
Morra, Barbora - PhD
Muir, Derek - BSc, MSc, PhD
Piunno, Paul - PhD
Stone, David Charles - BSc, PhD

Chemistry: Chemistry MSc

Master of Science

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department’s additional admission requirements stated below.
- Appropriate bachelor’s degree from a recognized university with at least a University of Toronto B+.

Program Requirements

- **Coursework:** Students must successfully complete 1.0 graduate full-course equivalent (FCE) including at least 0.5 graduate half-course equivalent in chemistry.
- **Coursework** Students must participate in a seminar program. Attendance and presentation of a seminar are mandatory in order to receive the credit.
- In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).
- **Submission of a thesis.**

Chemistry: Chemistry PhD

Doctor of Philosophy

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate master’s degree; 2) transfer from the University of Toronto master’s program; or 3) direct entry following completion of an appropriate BSc degree.

PhD students select one of the following fields:

- Analytical Chemistry
- Environmental Chemistry
- Inorganic Chemistry
- Organic and Biological Chemistry
- Physical Chemistry and Chemical Physics
- Polymers and Materials Chemistry
- Interdisciplinary, which allows combinations with the other fields, or with other disciplines

Each field requires a minimum of 2.0 to 3.0 full-course equivalents (FCEs) from approved graduate courses, depending on the field of study and the student's academic background. The number of courses required will be determined in consultation with the supervisor. Students who have completed the master's program may be considered for a course reduction of up to 1.0 FCE in the PhD program. Specific requirements for each field follow.

Field: Analytical Chemistry

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemistry’s additional admission requirements stated below.
- Appropriate master’s degree from a recognized university with a minimum average equivalent to at least a University of Toronto B+.
- An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program.
- Transfer to the PhD program may be considered during Year 1 of the master’s program.

Program Requirements

- **Coursework:** Students must complete a minimum of 2.0 full-course equivalents (FCEs) from approved graduate courses:
- 0.5 FCE in analytical chemistry in each of the areas of spectroscopy, separation science/electrochemistry, and advanced instrumentation/data analysis.
- An additional 0.5 FCE to support the research program.
- The number of courses required will be determined in consultation with the supervisor. Students who have completed the master's program may be considered for a course reduction of up to 1.0 FCE in the PhD program.

- Presentation of two seminars. Participation in the Analytical Chemistry Seminar (CHM1190Y). Students must complete 25 Analytical Seminar Plus (ASP) points (PDF).
- In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).
- Students must complete a minimum of 18 hours (24 hours for direct-entry students) of additional professional development training spread evenly over the categories: Communication, Personal Effectiveness, and Research and Teaching Skills. Consult with the Graduate Office for a list of eligible activities.
- Successful completion of an oral comprehensive field examination in Analytical Chemistry.
- The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis.

Program Length
4 years full-time; 5 years transfer-from-master's; 5 years direct-entry

Time Limit
6 years full-time; 7 years transfer-from-master's; 7 years direct-entry

Field: Environmental Chemistry

Minimum Admission Requirements
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemistry’s additional admission requirements stated below.
- Appropriate master's degree from a recognized university with a minimum average equivalent to at least a University of Toronto B+.
- An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program.
- Transfer to the PhD program may be considered during Year 1 of the master's program.

Program Requirements
- Coursework. Students must complete a minimum of 2.0 full-course equivalents (FCEs) from approved graduate courses:
  - CHM1401H Transport and Fate of Chemical Species in the Environment (0.5 FCE).
  - At least one other course in Environmental Chemistry.
  - At least one CHM course to be chosen in consultation with the supervisor/supervisory committee and confirmed by the field representative.
  - The fourth course may be an approved course offered in a cognate department.

- In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).
- Students must complete a minimum of 18 hours (24 hours for direct-entry students) of additional professional development training spread evenly over the categories: Communication, Personal Effectiveness, and Research and Teaching Skills. Consult with the Graduate Office for a list of eligible activities.
- Presentation of two seminars (normally in Years 2 and 4). Participation in the Environmental Chemistry Seminar and colloquia program (CHM1590Y).
- A written research proposal, defended orally, on a topic other than the primary research topic delivered prior to the end of Year 2.
- Successful completion of an oral comprehensive field examination in Environmental Chemistry, normally completed following coursework and before the end of Year 2.
- The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis.

Program Length
4 years full-time; 5 years transfer-from-master's; 5 years direct-entry

Time Limit
6 years full-time; 7 years transfer-from-master's; 7 years direct-entry

Field: Inorganic Chemistry

Minimum Admission Requirements
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemistry’s additional admission requirements stated below.
- Appropriate master's degree from a recognized university with a minimum average equivalent to at least a University of Toronto B+.
- An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program.
- Transfer to the PhD program may be considered during Year 1 of the master's program.

Program Requirements
- Coursework. Students must complete a minimum of 2.0 full-course equivalents (FCEs) from approved graduate courses:
  - One core half course (0.5 FCE): CHM 1270 or CHM1266H.
In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).

Students must complete a minimum of 18 hours (24 hours for direct-entry students) of additional professional development training spread evenly over the categories: Communication, Personal Effectiveness, and Research and Teaching Skills. Consult with the Graduate Office for a list of eligible activities.

Participation in the Inorganic Chemistry Seminar (CHM1290Y): the presentation of one seminar each year in Years 2, 3, and 4, including one on an original research proposal.

Successful completion of an oral comprehensive field examination in Inorganic Chemistry.

The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis.

Program Length
4 years full-time; 5 years transfer-from-master's; 5 years direct-entry

Time Limit
6 years full-time; 7 years transfer-from-master's; 7 years direct-entry

Field: Organic and Biological Chemistry

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemistry’s additional admission requirements stated below.
- Appropriate master's degree from a recognized university with a minimum average equivalent to at least a University of Toronto B+.
- An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program.
- Transfer to the PhD program may be considered during Year 1 of the master's program.

Program Requirements

- Coursework. Students must complete a minimum of 2.0 full-course equivalents (FCEs) from approved graduate courses:
  - At least two Organic Chemistry graduate half courses selected from CHM1040H to CHM1068H (inclusive).
  - Students may be required to take courses offered in physical organic, synthetic organic, and biological chemistry. The courses will be selected in consultation with the supervisor and confirmed by the Graduate Studies Committee field representative.
- Students must pass six cumulative exams in order for students to qualify to give the oral comprehensive field exam and advance to PhD candidacy. They are generally written on the first Friday of the month from October through May (inclusive).

- In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).
- Students must complete a minimum of 18 hours (24 hours for direct-entry students) of additional professional development training spread evenly over the categories: Communication, Personal Effectiveness, and Research and Teaching Skills. Consult with the Graduate Office for a list of eligible activities.
- Participation in the Organic Chemistry Seminar (CHM1090Y): present two seminars, normally in Years 2 and 4.
- Upon completion of coursework and cumulative exams, students will take an oral comprehensive field exam in Organic and Biological Chemistry.
- The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis.

Field: Physical Chemistry and Chemical Physics

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemistry's additional admission requirements stated below.
- Appropriate master's degree from a recognized university with a minimum average equivalent to at least a University of Toronto B+.
- An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program.
- Transfer to the PhD program may be considered during Year 1 of the master's program.

Program Requirements

- Students may select an Experimental Physical Chemistry path requiring:
  - 2.0 full-course equivalents (FCEs) consisting of a combination of two core half courses and two other half courses. The principle is that breadth of background preparation should be the major objective in course selection.
- Or students may select a Theoretical Physical Chemistry path requiring:
  - 3.0 FCEs, including two core half courses. Specifics are to be determined by the research director and the student.
- In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).
• Students must complete a minimum of 18 hours (24 hours for direct-entry students) of additional professional development training spread evenly over the categories: Communication, Personal Effectiveness, and Research and Teaching Skills. Consult with the Graduate Office for a list of eligible activities.
• Presentation of two seminars, normally in Years 2 and 4. Participation in the Physical Chemistry Seminar (CHM1490Y).
• Successful completion of an oral comprehensive field examination in Physical Chemistry and Chemical Physics.
• The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis.

Program Length
4 years full-time; 5 years transfer-from-master's; 5 years direct-entry

Time Limit
6 years full-time; 7 years transfer-from-master's; 7 years direct-entry

Field: Polymers and Materials Chemistry

Minimum Admission Requirements
• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemistry’s additional admission requirements stated below.
• Appropriate master's degree from a recognized university with a minimum average equivalent to at least a University of Toronto B+.
• An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program.
• Transfer to the PhD program may be considered during Year 1 of the master's program.

Program Requirements
• Coursework. Students must complete a minimum of 2.0 full-course equivalents (FCEs) including one core half course from the above fields.
• In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).
• Students must complete a minimum of 18 hours (24 hours for direct-entry students) of additional professional development training spread evenly over the categories: Communication, Personal Effectiveness, and Research and Teaching Skills. Consult with the Graduate Office for a list of eligible activities.
• Presentation of at least three seminars (a literature talk in Year 1 and presentations on the original research in Years 2 and 4). Participation in the Polymers and Materials Chemistry Seminar (CHM1390Y).
• Upon the completion of coursework, successful performance in an oral comprehensive field examination in Polymers and Materials Chemistry.
• The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis.

Field: Interdisciplinary

Minimum Admission Requirements
• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Chemistry's additional admission requirements stated below.
• Appropriate master's degree from a recognized university with a minimum average equivalent to at least a University of Toronto B+.
• An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program.
• Transfer to the PhD program may be considered during Year 1 of the master's program.
• Acceptance into this field requires a research topic of a truly interdisciplinary nature; a written request must be submitted to the Graduate Coordinator.

Program Requirements
• Coursework. Students must complete a minimum of 2.0 full-course equivalents (FCEs) including one core half course from the above fields.
• In Year 1, students must complete the modules in CHM3000H Graduate Professional Development for Research and Teaching in Chemistry (0.5 FCE; Credit/No Credit).
• Students must complete a minimum of 18 hours (24 hours for direct-entry students) of additional professional development training spread evenly over the categories: Communication, Personal Effectiveness, and Research and Teaching Skills. Consult with the Graduate Office for a list of eligible activities.
• Presentation of at least two seminars (normally in Years 2 and 4). Participation in the seminar program of an existing field of Chemistry.
• Upon completion of coursework, successful completion of an oral comprehensive field examination in the fields of Chemistry deemed appropriate.
• The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis.
Program Length

4 years full-time; 5 years transfer-from-master's; 5 years direct-entry

Time Limit

6 years full-time; 7 years transfer-from-master's; 7 years direct-entry

Chemistry: Chemistry MSc, PhD Courses

Not all courses are offered every year. Please consult the department each session as to course availability.

All graduate courses for degree credit must be approved by the department. Subject to departmental permission, degree students in chemistry may take a limited number of graduate courses based on fourth-year Faculty of Arts and Science courses in chemistry or a cognate discipline. Approvals of such fourth-year courses will be considered on an individual basis. Third-year arts and science courses, or their essential equivalents, will not receive degree credit.

Professional Development

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM3000H</td>
<td>Graduate Professional Development for Research and Teaching in Chemistry (Credit/No Credit)</td>
</tr>
</tbody>
</table>

Analytical Chemistry

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM1102H</td>
<td>Biosensors and Chemical Sensors</td>
</tr>
<tr>
<td>CHM1103H</td>
<td>Advanced Topics in Analytical Chemistry</td>
</tr>
<tr>
<td>CHM1104H</td>
<td>Separation Science</td>
</tr>
<tr>
<td>CHM1105H</td>
<td>Separations, Chromatography, and Microfluidics</td>
</tr>
<tr>
<td>CHM1106H</td>
<td>Lab Instrumentation</td>
</tr>
<tr>
<td>CHM1107H</td>
<td>The -Oms Revolution and Mass Spectrometry</td>
</tr>
<tr>
<td>CHM1150H</td>
<td>Advances in Electroanalytical Chemistry and Electrochemical Sensors</td>
</tr>
<tr>
<td>CHM1190Y</td>
<td>Analytical Chemistry Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>CHM1410H</td>
<td>Analytical Environmental Chemistry</td>
</tr>
<tr>
<td>CHM2013H</td>
<td>Research in Analytical Chemistry</td>
</tr>
<tr>
<td>CHM2014H</td>
<td>Research in Analytical Chemistry</td>
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</table>

Environmental Chemistry

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHM1401H</td>
<td>Transport and Fate of Chemical Species in the Environment</td>
</tr>
<tr>
<td>CHM1404H</td>
<td>Molecular Analysis of Natural Systems</td>
</tr>
<tr>
<td>CHM1410H</td>
<td>Analytical Environmental Chemistry</td>
</tr>
<tr>
<td>CHM1415H</td>
<td>Atmospheric Chemistry</td>
</tr>
<tr>
<td>CHM1420H</td>
<td>Environmental Chemistry of Soil</td>
</tr>
<tr>
<td>CHM1425H</td>
<td>Modelling the Fate of Organic Chemicals in the Environment</td>
</tr>
<tr>
<td>CHM1430H</td>
<td>Advanced Topics in Atmospheric Chemistry</td>
</tr>
<tr>
<td>CHM1590Y</td>
<td>Environmental Chemistry Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>CHM2534H</td>
<td>Research in Environmental Chemistry</td>
</tr>
<tr>
<td>EES1105H</td>
<td>Soil Contamination Chemistry</td>
</tr>
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Inorganic Chemistry

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHM1204H</td>
<td>Organometallic Chemistry and Catalysis</td>
</tr>
<tr>
<td>CHM1205H</td>
<td>Inorganic Reaction Mechanisms</td>
</tr>
<tr>
<td>CHM1206H</td>
<td>Solid State Chemistry: Structure-Property Relations</td>
</tr>
<tr>
<td>CHM1258H</td>
<td>Reactions of Coordinated Ligands</td>
</tr>
<tr>
<td>CHM1263H</td>
<td>Bio-inorganic Chemistry</td>
</tr>
<tr>
<td>CHM1268H</td>
<td>X-Ray Crystallography</td>
</tr>
<tr>
<td>CHM1269H</td>
<td>Nanochemistry: A Chemistry Approach to Nanomaterials</td>
</tr>
<tr>
<td>CHM1270H</td>
<td>Frontiers in Inorganic Chemistry (core course)</td>
</tr>
<tr>
<td>CHM1290Y</td>
<td>Inorganic Chemistry Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>CHM2034H</td>
<td>Research in Inorganic Chemistry</td>
</tr>
</tbody>
</table>

Organic and Biological Chemistry

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHM1003H</td>
<td>Physical Organic Chemistry II</td>
</tr>
<tr>
<td>CHM1004H</td>
<td>Synthetic Organic Chemistry</td>
</tr>
<tr>
<td>CHM1005H</td>
<td>Applications of Spectroscopy in Organic Structure Determination</td>
</tr>
<tr>
<td>CHM1006H</td>
<td>Bioorganic Chemistry</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>CHM1008H</td>
<td>Biological Chemistry</td>
</tr>
<tr>
<td>CHM1040H</td>
<td>Modern Organic Synthesis</td>
</tr>
<tr>
<td>CHM1045H</td>
<td>Modern Physical Organic Chemistry</td>
</tr>
<tr>
<td>CHM1051H</td>
<td>Current Topics in Chemical Biology</td>
</tr>
<tr>
<td>CHM1054H</td>
<td>Topics in Bio-organic Chemistry</td>
</tr>
<tr>
<td>CHM1056H</td>
<td>Techniques for Studying the Chemical, Structural, and Dynamic Properties of Biomolecules</td>
</tr>
<tr>
<td>CHM1057H</td>
<td>Topics in Synthetic Organic Chemistry</td>
</tr>
<tr>
<td>CHM1059H</td>
<td>Chemical Biology in Complex Systems</td>
</tr>
<tr>
<td>CHM1060H</td>
<td>Advanced Topics in Synthetic Organic Chemistry</td>
</tr>
<tr>
<td>CHM1068H</td>
<td>Topics in Biological and Medicinal Chemistry</td>
</tr>
<tr>
<td>CHM1090Y</td>
<td>Organic Chemistry Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>CHM2044H</td>
<td>Research in Organic Chemistry</td>
</tr>
<tr>
<td>CHM2102H</td>
<td>Molecular Imaging in Diagnostic Medicine</td>
</tr>
<tr>
<td>CHM2103H</td>
<td>Chemical Glycobiology</td>
</tr>
<tr>
<td>CHM2104H</td>
<td>Biological Chemistry: Design and Evolution of Proteins and Nucleic Acids</td>
</tr>
<tr>
<td>CHM2105H</td>
<td>Medicinal Chemistry from the Enzyme’s Perspective</td>
</tr>
<tr>
<td>CHM2106H</td>
<td>Current Topics in Chemical Biology</td>
</tr>
<tr>
<td>CHM2107H</td>
<td>Optogenetics and Chemogenetics: Protein and Small Molecule Based Biomolecular Tools</td>
</tr>
<tr>
<td>CHM2108H</td>
<td>Kinetic Modelling in Chemistry and Biology</td>
</tr>
<tr>
<td>CHM1480H</td>
<td>Basic Statistical Mechanics (core course)</td>
</tr>
<tr>
<td>CHM1481H</td>
<td>Reaction Kinetics and Dynamics</td>
</tr>
<tr>
<td>CHM1482H</td>
<td>Laser Spectroscopy and Photophysics</td>
</tr>
<tr>
<td>CHM1490Y</td>
<td>Physical Chemistry Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>CHM2024H</td>
<td>Research in Physical Chemistry</td>
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### Polymers and Materials Chemistry

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHM1206H</td>
<td>Solid State Chemistry: Structure-Property Relations</td>
</tr>
<tr>
<td>CHM1300H</td>
<td>Polymer Chemistry</td>
</tr>
<tr>
<td>CHM1301H</td>
<td>Organic and Inorganic Polymer Synthesis</td>
</tr>
<tr>
<td>CHM1302H</td>
<td>Physical Chemistry of Polymers</td>
</tr>
<tr>
<td>CHM1304H</td>
<td>Organic Materials Chemistry</td>
</tr>
<tr>
<td>CHM1390Y</td>
<td>Polymer and Materials Chemistry Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>CHM2304H</td>
<td>Research in Polymer and Materials Chemistry</td>
</tr>
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</table>

### Physical and Theoretical Chemistry

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHM1441H</td>
<td>Mathematical Methods</td>
</tr>
<tr>
<td>CHM1443H</td>
<td>Intermediate Quantum Mechanics</td>
</tr>
<tr>
<td>CHM1446H</td>
<td>Quantum Computation and Information Theory</td>
</tr>
<tr>
<td>CHM1448H</td>
<td>Modelling of Biochemical Systems</td>
</tr>
<tr>
<td>CHM1450H</td>
<td>Nanoscale Characterization with Scan Probe Microscopy</td>
</tr>
<tr>
<td>CHM1455H</td>
<td>NMR Spectroscopy I: Basic Theory and Applications for Biological Chemists</td>
</tr>
<tr>
<td>CHM1464H</td>
<td>Topics in Statistical Mechanics</td>
</tr>
<tr>
<td>CHM1478H</td>
<td>Quantum Mechanics for Physical Chemists (core course)</td>
</tr>
</tbody>
</table>
Cinema Studies

Cinema Studies: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Cinema Studies

MA and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Diaspora and Transnational Studies**
  - Cinema Studies, MA
- **Sexual Diversity Studies**
  - Cinema Studies, MA
- **Women and Gender Studies**
  - Cinema Studies, MA

Overview

The Cinema Studies Institute (CSI) comprises 16 full-time faculty, whose competencies and research emphases contribute to a curriculum that encompasses film and media history, theory, analysis, and cultural practices. Specializations include: early cinema, technology, sound studies, architecture and space, animal studies, film philosophy, media archaeology, aboriginal cinemas, national cinemas, animation, critical race theory, postcolonial and subaltern studies, gender, migration and diaspora, documentary, digital and expanded cinemas, avant-garde, and experimental film.

The facilities, both at Innis College and in the Media Commons at Robarts Library, are equipped with the latest technologies; include a lending library dedicated to film scholarship archival and restoration facilities; several seminar rooms; mid-sized classrooms; and a lecture and screening facility, the Innis Town Hall, seating 150 visitors and boasting 35 mm, 16 mm, and digibeta capabilities. Students benefit from both the peerless campus resources as well as those institutions associated with Toronto’s wider film and media culture, including the Film Reference Library, TIFF, Bell Lightbox, a multitude of film festivals, and a highly differentiated media production and distribution landscape.

Past graduates of CSI now teach at universities across the continent and are also employed at film and media-related institutions ranging from the Toronto International Film Festival Group to the Pacific Film Archive, serving as respected executives, creators, and curators. The institute is committed to providing students with a rigorous, engaging, and memorable education. Equally important, the institute aims to introduce graduates to a close-knit academic community that shares a common goal: exploring the depth and breadth of film and media scholarship in an environment that stimulates thought and fosters collegiality.

Contact and Address

Web: [www.cinema.utoronto.ca](http://www.cinema.utoronto.ca)
Email: gradcinema.studies@utoronto.ca
Telephone: (416) 978-5809
Fax: (416) 946-0168

Cinema Studies Institute
University of Toronto
Innis College
2 Sussex Avenue
Toronto, Ontario M5S 1J5
Canada

Cinema Studies: Graduate Faculty

Full Members

- Ackerman, Alan - BA, MA, PhD
- Baumann, Shyon - BA, MA, PhD
- Boler, Megan - BA, PhD
- Brown, Elspeth - MA, PhD
- Budde, Antje - PhD
- Cahill, James - AB, MA, MA, PhD (*Director*)
- Cazdyn, Eric - BA, MA, PhD
- Columpar, Corinn - BA, PhD
- Fenner, Angelica - BA, MA, PhD
- Jagoe, Eva-Lynn - BA, MA, PhD
- Jain, Kajri - PhD
- Johnson, Stephen - BA, MA, PhD
- Kaplan, Louis - AB, AM, DPhil
- Keil, Charlie - BA, MA, PhD
- Keilty, Patrick - BA, MLIS, PhD
- Legge, Elizabeth MM - BA, BA, MA, PhD
- Leonard, Garry - BA, MA, PhD
- Lim, Bliss Cua - AB, DA
- MacArthur, Julie - BA, MPH, PhD
- Maurice, Alice - BA, DPhil
- Meng, Yue - BA, MA, MA, PhD
- Most, Andrea - BA, MA, PhD
- Price, Brian - PhD (*Associate Director, Graduate Studies*)
- Ricco, John - BA, MA, PhD
- Richmond, Scott - BA, PhD
- Sammond, Nicholas - BA, MA, PhD
- Sutherland, Meghan - PhD
- Tcheuyap, Alexie - BA, MA, PhD
- Walcott, Rinaldo - BA, MA, PhD
- Zambenedetti, Alberto - MA, PhD

Members Emeriti

- Armatage, Kay - BA, MA, PhD

Associate Members

- Banning, Kass - MFA, MFA
- Blas, Zachary - BS, MFA, PhD
- Chan, Nadine - DA
- Cho, Michelle - BA, MA, DPhil
- Jacobson, Brian - PhD
- Mandusic, Zdenko - BA, MA, PhD
- Parker, Felan - AB, AM, DA
- Story, Brett - BA, MSc, DA
- Testa, Bart - BA, MA
Cinema Studies: Cinema Studies MA

Master of Arts

Program Description

The course-based, one-year MA program offers students the option, during their third term, of pursuing either a professional internship or a major research paper of roughly 40 to 50 pages written under the supervision of a faculty advisor elected by the student. Students have the option to concurrently enrol in one of the collaborative specializations at U of T, such as Sexual Diversity Studies, Women and Gender Studies, or Transnational and Diaspora Studies, which entails also registering for their specific core courses. The MA in Cinema Studies is a full-time program.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Cinema Studies Institute's additional admission requirements stated below.
• Successful completion of an appropriate four-year University of Toronto bachelor's degree, or its equivalent from a recognized university.
• Minimum B+ standing, demonstrated by an average grade in the final year, or over senior-level courses.
• Successful completion of a minimum of 6.0 full-course equivalents (FCEs) in cinema studies, or comparable program preparation.
• A letter of intent addressing the academic goals an applicant wishes to pursue in the program.
• Three letters of recommendation.
• Transcripts from all post-secondary institutions.
• An academic writing sample of no more than 3,000 words.

Program Requirements

• The MA is a coursework-only program and therefore does not require a thesis.
• Students must successfully complete a total of 4.0 full-course equivalents (FCEs) over the course of an academic year, normally extending from September until August, as follows:
  o 1.0 FCE mandatory core courses: CIN1101H and CIN1102H.
  o 1.0 FCE devoted to either the writing of a major research paper (CIN1006Y) or pursuing an internship (CIN1007Y).
  o 2.0 FCEs may be completed in the following way:
    • from elective CIN courses chosen from rotating special topics courses, also under the CIN rubric, but possibly cross-listed with another department, depending on the instructor's departmental home.
    • from film-related courses offered by other units (non-CIN designator) but approved as relevant to the Cinema Studies master's program curriculum.
• All coursework is normally completed by December of Year 2 of study, except for CIN2999H which may extend beyond that date.
• Completion of one Qualifying Examination. Students generally undertake the Qualifying Examination after the completion of coursework in Year 2 of study.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Cinema Studies: Cinema Studies PhD

Doctor of Philosophy

Program Description

Launched in September 2013, the Doctor of Philosophy program in Cinema Studies addresses the changing role of moving image media within global culture. Past and present configurations of cinema are studied through a constellation of theoretical, textual, social, and historical rubrics. The core curricular offerings engage with debates and questions that persist within the scholarship while also examining how the field contends with emerging disciplinary issues and intermedial formats today and at earlier historical junctures. Throughout the program of study, the synthesis of history and theory, textual analysis, and cultural study is emphasized.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Cinema Studies Institute's additional admission requirements stated below.
• Letter of intent outlining the academic ambitions, including possible thesis topic, the applicant aims to pursue in the program.
• Three letters of recommendation.
• A writing sample.
• Transcripts from all post-secondary institutions.

Program Requirements

• The student's program of study must be approved by the Cinema Studies Institute (CSI).
• Coursework. Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  o 1.0 FCE required courses: CIN2100H History and Historiography of Cinematic Media and CIN2101H Pressures on the Cinematic. Students who have already taken these courses, or their equivalent, will be required to enrol in alternate course selections, with the Graduate Coordinator's approval.
  o 1.5 FCEs offered in cinema studies.
  o 1.0 FCE elective courses offered in cinema studies or by other graduate units and chosen in consultation with the student's faculty advisor.
  o 0.5 FCE: CIN2999H Research Seminar in Cinema Studies (Credit/No Credit).
• All coursework is normally completed by December of Year 2 of study, except for CIN2999H which may extend beyond that date.
• Completion of one Qualifying Examination. Students generally undertake the Qualifying Examination after the completion of coursework in Year 2 of study.
The Qualifying Examination covers two special fields and has two components: a written examination and an oral examination. These exams are scheduled by the student’s supervisor and committee members. Examinations are marked on a pass/fail basis. (Should the committee deem their work exceptional, students may pass with distinction.) Students are allowed two attempts to pass the written examination and two attempts to pass the oral examination.

- Students must have completed all requirements for the degree, exclusive of thesis research, by the end of Year 3 of study in order to remain in good academic standing and in order to achieve candidacy.
- Completion of a PhD dissertation based on original research conducted by the candidate on an approved topic in cinema studies. The dissertation proposal should be approved by the supervisor no later than May of Year 2 of PhD studies. Each student is required to meet at least annually with a supervisory committee, which includes the supervisor and two faculty members, to review academic progress, and to consult about future directions.
- The thesis must be presented within six years of first enrolment in the PhD program. Successful defence at the SGS Doctoral Final Oral Examination.

Program Length
4 years full-time

Time Limit
6 years full-time

Cinema Studies: Cinema Studies MA, PhD

Courses

Not all elective courses are offered every year. The department should be consulted each session as to elective and non-CIN course offerings.

MA Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIN1101H</td>
<td>Theories and Practices of Cinema</td>
</tr>
<tr>
<td>CIN1102H</td>
<td>Key Developments in Film History</td>
</tr>
</tbody>
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Plus one of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIN1006Y</td>
<td>Major Research Paper in Cinema Studies</td>
</tr>
<tr>
<td>CIN1007Y</td>
<td>Internship in Cinema Studies</td>
</tr>
</tbody>
</table>

PhD Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CIN2100H</td>
<td>History and Historiography of Cinematic Media</td>
</tr>
<tr>
<td>CIN2101H</td>
<td>Pressures on the Cinematic</td>
</tr>
<tr>
<td>CIN2999H</td>
<td>Research Seminar in Cinema Studies (Credit/No Credit)</td>
</tr>
</tbody>
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Elective Courses (Subject to Change)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIN1005H</td>
<td>Special Studies in Cinema</td>
</tr>
<tr>
<td>CIN1008H</td>
<td>Independent Research and Reading in Cinema Studies</td>
</tr>
<tr>
<td>CIN1011H</td>
<td>Colour and the Moving Image</td>
</tr>
<tr>
<td>CIN1100H</td>
<td>The Textual Object</td>
</tr>
<tr>
<td>CIN1772H</td>
<td>The Politics of Non-Fiction Film</td>
</tr>
<tr>
<td>CIN3002H</td>
<td>Cinema and Nation</td>
</tr>
<tr>
<td>CIN3004H</td>
<td>Documentary and Non-fiction Media</td>
</tr>
<tr>
<td>CIN3006H</td>
<td>Media and Philosophy</td>
</tr>
<tr>
<td>CIN3008H</td>
<td>Topics in Film and Media History</td>
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<tr>
<td>CIN3010H</td>
<td>Topics in Film and Media Theory</td>
</tr>
<tr>
<td>CIN6153H</td>
<td>Race and Cinema</td>
</tr>
<tr>
<td>CIN6803H</td>
<td>Intertextuality in Feminist Cinema: The Counter-Cinematic Impulse</td>
</tr>
<tr>
<td>JFF1101H</td>
<td>The Art of Exploration: How to Think the World</td>
</tr>
<tr>
<td>JFF1102H</td>
<td>Animages/Animots/Animotions</td>
</tr>
<tr>
<td>JGF1733H</td>
<td>Autobiographical Documentary: History, Alterity, and Performativity</td>
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</table>
Civil and Mineral Engineering

Civil and Mineral Engineering: Introduction

Faculty Affiliation

Applied Science and Engineering

Degree Programs

Civil Engineering

MASc

- Emphasis:
  - Sustainable Energy

MEng

- Emphases:
  - Advanced Water Technologies;
  - Analytics;
  - Building Science;
  - Concrete;
  - Construction Management;
  - Engineering and Globalization;
  - Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE);
  - Environmental Engineering;
  - Forensic Engineering;
  - Geomechanics;
  - Structural Engineering;
  - Sustainable Energy;
  - Sustainable Urban Systems;
  - Transportation Engineering and Planning;
  - Waterpower

PhD

- Emphasis:
  - Sustainable Energy

Cities Engineering and Management

MEngCEM

Combined Degree Programs

- UTSC, Environmental Biology (Specialist), Honours BSc / Civil Engineering, MEng
- UTSC, Environmental Biology (Specialist Co-op), Honours BSc / Civil Engineering, MEng
- UTSC, Environmental Chemistry (Specialist), Honours BSc / Civil Engineering, MEng
- UTSC, Environmental Chemistry (Specialist Co-op), Honours BSc / Civil Engineering, MEng
- UTSC, Environmental Geoscience (Specialist), Honours BSc / Civil Engineering, MEng
- UTSC, Environmental Geoscience (Specialist Co-op), Honours BSc / Civil Engineering, MEng
- UTSC, Environmental Physics (Specialist), Honours BSc / Civil Engineering, MEng
- UTSC, Environmental Physics (Specialist Co-op), Honours BSc / Civil Engineering, MEng

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Engineering Education
  - Civil Engineering, MASc, PhD
- Environmental Studies
  - Civil Engineering, MASc, MEng, MEngCEM, PhD
- Psychology, Psychiatry and Engineering
  - Civil Engineering, MASc, PhD

Overview

The research conducted in the Department of Civil and Mineral Engineering is addressing the need for innovative solutions to society’s needs, from the deep underground to the world’s tallest structures. The dedicated students, staff, and professors are pursuing exciting research ranging from nanoscale investigations into water contamination and concrete properties, to the large-scale tests of structures under full-scale simulated earthquakes, to development of real-time mass transit models to solve urban congestion. Research is informed by extensive collaboration and interaction with industry and government partners. Facilities and breadth of research expertise are among the best in the world, offering great opportunities for involvement in ground-breaking research.

The Department of Civil and Mineral Engineering is organized into five interdisciplinary research themes: Cities & Infrastructure; Complex Systems; Energy & Environment; Mining & Subsurface Systems; and Transformative Technologies. These themes encompass the traditional civil engineering areas of Structural Engineering; Transportation Engineering; Environmental Engineering; Building Engineering and Construction Management; and Mining and Geomechanics.

Contact and Address

Admission Inquiries

Web: civmin.utoronto.ca
Email: admissions.civmin@utoronto.ca
Telephone: (416) 978-3099
Fax: (416) 978-6813

Note: please direct all admission inquiries to admissions.civmin@utoronto.ca (not civ.gradprograms@utoronto.ca).

Student Services Inquiries

General inquiries: info.civmin@utoronto.ca
PhD and MASc programs: Colleen Kelly
Email: civ.gradprograms@utoronto.ca
Telephone: (416) 978-5904

MEng and MEngCEM programs: Alison Morley
Email: meng.civmin@utoronto.ca
Telephone: (416) 946-8028

Department of Civil and Mineral Engineering
University of Toronto
Galbraith Building 35 St. George Street, Room 116
Civil and Mineral Engineering: Graduate Faculty

Full Members

Abdulhai, Baher - BEng, MEng, PhD, PEng
Andrews, Robert - BASc, MASc, PhD, PEng
Andrews, Susan - BSc, MSc, PhD
Azhari, Fae - BEng, PhD
Bentz, Evan - BASc, PhD, PEng
Christopoulos, Constantine - BE, MASc, PhD, PEng
Collins, Michael - BE, PhD, PEng
Diamond, Sara - MASc
Drake, Jennifer Anne Pauline - BEng, MASc, PhD, PEng
Esmaeili, Kamran - BASc, MSc, PhD
Gauvreau, Paul - BSc, MSc, PhD, PEng
Goodfellow, Sebastian - MASc, PhD
Grabsky, Murray - BASc, MASc, PhD, PEng
Grasselli, Giovanni - PhD, PEng
Hadjigeorgiou, John - DiplGeol, BASc, ME, DPhil, PEng
Haines, Sarah - PhD
Harrison, John Paul - BSc, MSc, PhD
Hatzopoulos, Marianne - BASc, MSc, PhD
Hofmann, Ronald - BEng, MASc, PhD, PEng
Hooton, R Douglas - BASc, MASc, PhD, PEng
Karney, Bryan - BSc, MEng, PhD, PEng
Kennedy, Christopher - BEng, MEng, MBA, MASc, PhD, PEng
Kim, Daeho - DPhil
Lee, Seungjae - BASc, MSc, PhD
MacLean, Heather L. - BASc, MASc, MBA, PhD, PEng
McCabe, Brenda - BSc, PhD, PEng
Mercan, Oya - BS, MS, PhD
Miller, Eric - BASc, MASc, PhD
Nurul Habib, Khandker - MS, PhD, PEng
Ogunsanya, Ibrahim G. - DEng
Packer, Jeffrey - BE, MSc, DSc, PhD, PEng
Panesar, Daman - BE, ME, PhD, PEng
Passeport, Elodie - MSc, MSc, PhD
Peterson, Karl - BS, MS, PhD, PEng
Pressnail, Kim - BASc, PhD, PEng
Rezaei Rad, Aryan - PhD
Roorda, Matthew - BEng, MASc, PhD, PEng
Saxe, Shoshanna - MSc, PhD
Shalaby, Amer - BSc, MASc, PhD, PEng
Sheikh, Shamim - BSE, MASc, PhD, PEng
Siegel, Jeffrey Alexander - BS, MS, PhD
Sleep, Brent - BSc, MASc, PhD, PEng
Vanderburg, Willem - BASc, MASc, PhD, PEng
Vecchio, Frank - BASc, MEng, PhD, PEng
Warren, Lesley Alice - BSc, PhD
Windisch, Marianne Touchie - BASc, PhD
Young, Paul - BSc, MSc, PhD, CEng

Associate Members

Berardi, Umberto - BE, MS, DE
Hoornweg, Daniel - BSc, MSc, PhD
Karampinos, Stratos - DiplIng, ME, DrEng
Kroll, Magdalena - BSE, ME, PhD
Lindsay, Matthew - BSc, DSc
McPherson, Madeleine - BASc, ME, PhD
Minet, Laura - DrEng
OBrien, Liam - PhD, DrEng
Pensini, Erica - DE
Seica, Michael - DiplIng, PhD
Slack, Enid - PhD
Talesnick, Mark - DSc
Zhao, Qi - ME, DrEng

Civil and Mineral Engineering: Civil Engineering MASc

Master of Applied Science

Program Description

The MASc program includes a foundational base of graduate courses followed by a research thesis. Many research projects involve industrial partnerships and networking opportunities, project management experience, and collaboration with leading experts.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering's additional admission requirements stated below.
- A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of a mid B (3.0 out of 4.0, or 75%). Required grades must be achieved in each of the final two years of undergraduate study. Competitive admission averages are typically near or above 80% (A–).
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Students who do not possess an undergraduate degree in civil engineering may be required to take more than the usual time and number of courses.

Program Requirements

- Each student, in consultation with a staff member at the beginning of the program, will establish the distribution of time between coursework and thesis or design project.
Coursework. Normally, students must complete a minimum of 2.5 full-course equivalents (FCEs) (five half courses).

Research thesis.

Students must participate in the non-credit seminar course JDE1000H Ethics in Research during their first or second session of registration.

In addition to the core research area, students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Civil Engineering MASc, MEng, PhD Emphases section.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Civil and Mineral Engineering: Civil Engineering MEng

Master of Engineering

Program Description

The MEng program is course based and intended to provide continuing and advanced education for recent graduates and civil engineers in professional practice. The program can be taken on a full-time, extended full-time, or part-time basis.

Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering's additional admission requirements stated below.
- A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of a mid-B (3.0 out of 4.0 or 75%). Required grades must be achieved in each of the final two years of undergraduate study.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Students who do not possess an undergraduate degree in civil engineering may be required to take more than the usual time and number of courses.

Program Requirements

- Each student, in consultation with a staff member at the beginning of the program, will establish the distribution of time between coursework and thesis or design project.

Coursework. Normally, students must complete 5.0 full-course equivalents (FCEs) (10 half courses). Up to two half courses (1.0 FCE) may be replaced by a research/design project.

Students have the option of completing an emphasis in Advanced Water Technologies; Analytics; Building Science; Concrete; Construction Management; Engineering and Globalization; Entrepreneurship; Leadership, Innovation and Technology in Engineering (ELITE); Environmental Engineering; Forensic Engineering; Geomechanics; Structural Engineering; Sustainable Energy; Sustainable Urban Systems; or Transportation Engineering and Planning as part of their degree program. Please see details in the Civil Engineering MASc, MEng, PhD Emphases section.

Program Length

3 sessions (typical registration sequence: F/W/S)

Time Limit

3 years

Extended Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering's additional admission requirements stated below.
- A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of a mid-B (3.0 out of 4.0 or 75%). Required grades must be achieved in each of the final two years of undergraduate study.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Students who do not possess an undergraduate degree in civil engineering may be required to take more than the usual time and number of courses.

Program Requirements

- Each student, in consultation with a staff member at the beginning of the program, will establish the distribution of time between coursework and thesis or design project.

Coursework. Normally, students must complete 5.0 full-course equivalents (FCEs) (10 half courses). Up to two half courses (1.0 FCE) may be replaced by a research/design project.

Students are expected to complete the requirements in six sessions (two years) and are limited to six half courses per year and three half courses per session.
• Students have the option of completing an emphasis in Advanced Water Technologies; Analytics; Building Science; Concrete; Construction Management; Engineering and Globalization; Entrepreneurship; Leadership; Innovation and Technology in Engineering (ELITE); Environmental Engineering; Forensic Engineering; Geomechanics; Structural Engineering; Sustainable Energy; Sustainable Urban Systems; or Transportation Engineering and Planning as part of their degree program. Please see details in the Civil Engineering MASc, MEng, PhD Emphases section.

Program Length

6 sessions extended full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

Part-Time Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering's additional admission requirements stated below.

• A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of a mid-B (3.0 out of 4.0 or 75%). Required grades must be achieved in each of the final two years of undergraduate study.

• Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

• Students who do not possess an undergraduate degree in civil engineering may be required to take more than the usual time and number of courses.

Program Requirements

• Each student, in consultation with a staff member at the beginning of the program, will establish the distribution of time between coursework and thesis or design project.

• Coursework. Normally, students must complete 5.0 full-course equivalents (FCEs) (10 half courses). Up to two half courses (1.0 FCE) may be replaced by a research/design project.

• Students are limited to four half courses per year and two half courses per session. Students normally complete the requirements in nine sessions.

• Students have the option of completing an emphasis in Advanced Water Technologies; Analytics; Building Science; Concrete; Construction Management; Engineering and Globalization; Entrepreneurship; Leadership; Innovation and Technology in Engineering (ELITE); Environmental Engineering; Forensic Engineering; Geomechanics; Structural Engineering; Sustainable Energy; Sustainable Urban Systems; or Transportation Engineering and Planning as part of their degree program. Please see details in the Civil Engineering MASc, MEng, PhD Emphases section.

Program Length

9 sessions

Time Limit

6 years

Civil and Mineral Engineering: Civil Engineering PhD

Doctor of Philosophy

Program Description

The PhD program is designed for outstanding individuals interested in a rewarding career in fundamental or applied research. This program involves advanced courses and an intensive research program culminating in a thesis.

Applicants may enter the PhD program via one of three routes: 1) following completion of an MASc degree in engineering, mathematics, physics, or chemistry; 2) transfer from the University of Toronto MASc program; 3) direct entry following completion of a bachelor's degree.

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering's additional admission requirements stated below.

• A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of B+ (3.3 out of 4.0 or 78%). Required grades must be achieved in each of the final two years of undergraduate study. Competitive admission averages are typically near or above 80% (A–).

• Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

• Applicants must satisfy the department of the ability to undertake advanced research.

• Admission directly from a bachelor's degree is permitted in exceptional cases.

• If a student transfers from a master's degree program to a PhD program, courses taken during the master's program may be applied to the PhD program.
Program Requirements

- **Students with an MASc degree** (or equivalent in the same area of study) must complete a minimum of **2.0 full-course equivalents (FCEs)** (four half courses).
- **Students with an MEng degree** must complete a minimum of **4.5 FCEs** (nine half courses). Up to 3.0 FCEs (six graduate half courses) may be used from the MEng program towards the PhD course requirements.
- Students enrolled in the MASc degree program who transfer to the PhD program must complete a total of **4.5 full-course equivalents (FCEs)** (nine half courses).
- For **direct-entry** students, more FCEs may be required depending on the student's background preparation. It is normally expected that at least one of the half courses will be taken outside of the student's principal area of research.
- **Comprehensive examination** after completing most of the coursework and preferably within one year after first enrolment in the PhD program. This examination consists of a four- to five-day take-home written examination, followed approximately a week later by an oral examination. The examination is administered by a Comprehensive Examination Committee created and supervised by the department's Graduate Studies Committee.
- **Residence.** Students normally must spend at least two academic years of their program on campus on a full-time basis. The academic program must be approved by the department's Graduate Studies Committee during the student's first session.
- Students must participate in the non-credit seminar course JDE1000H *Ethics in Research* during their first or second session of registration.
- Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Civil Engineering MASc, MEng, PhD Emphases section.

Program Length

4 years full-time; 5 years transfer-from-master's; 5 years direct-entry

Time Limit

6 years full-time; 7 years transfer-from-master's; 7 years direct-entry

PhD Program (Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering's additional admission requirements stated below.
- A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of B+ (3.3 out of 4.0 or 78%). Required grades must be achieved in each of the final two years of undergraduate study. Competitive admission averages are typically near or above 80% (A–).
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Applicants must satisfy the department of the ability to undertake advanced research.
- In addition, applicants must demonstrate that they are actively engaged in professional activities related to their proposed program of study.

Program Requirements

- **Students with an MASc degree** (or equivalent in the same area of study) must complete a minimum of **2.0 full-course equivalents (FCEs)** (four half courses).
- **Students with an MEng degree** must complete a minimum of **4.5 FCEs** (nine half courses). Up to 3.0 FCEs (six graduate half courses) may be used from the MEng program towards the PhD course requirements.
- Students enrolled in the MASc degree program who transfer to the PhD program must complete a total of **4.5 full-course equivalents (FCEs)** (nine half courses).
- For **direct-entry** students, more FCEs may be required depending on the student's background preparation. It is normally expected that at least one of the half courses will be taken outside of the student's principal area of research.
- **Comprehensive examination** after completing most of the coursework and preferably within one year after first enrolment in the PhD program. This examination consists of a four- to five-day take-home written examination, followed approximately a week later by an oral examination. The examination is administered by a Comprehensive Examination Committee created and supervised by the department's Graduate Studies Committee.
- **Residence.** Students normally must spend at least two academic years of their program on campus on a full-time basis. Students must participate in the non-credit seminar course JDE1000H *Ethics in Research* during their first or second session of registration.
- Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Civil Engineering MASc, MEng, PhD Emphases section.

Program Length

6 years

Time Limit

8 years
Civil and Mineral Engineering: Civil Engineering MASc, MEng, PhD Emphases

Emphasis: Advanced Water Technologies (MEng only)

MEng students must successfully complete a total of 2.0 full-course equivalents (FCEs) (four half courses).

Core Courses

Students must select at least one of the following (0.5 FCE):

- CHE1150H Industrial Water Technology
- CIV1308H Physical and Chemical Treatment Processes
- CIV1309H Biological Treatment Processes
- CIV1311H Advanced and Sustainable Drinking Water Treatment

Students may select an additional course (0.5 FCE) from the list above, or they must select one (0.5 FCE) of the following:

- CHE565H1 Aqueous Process Engineering
- CIV541H1 Environmental Biotechnology
- CIV550H1 Water Resources Engineering
- CIV1303H Water Resources Systems Modeling
- CIV1319H Chemistry and Analysis of Water and Wastes
- CIV1330H Water, Sanitation, Hygiene, and Global Health
- CIV1398H New Topics in Civil and Mineral Engineering
- CME500H1 Fundamentals of Acid Rock Drainage
- CME549H1 Groundwater Flow and Contamination

Specialization Courses

Students must select the remaining balance of courses (1.0 FCE) from the following, or from any of the core courses listed above:

- CHE1213H Corrosion
- CHE1430H Hydrometallurgy Theory and Practice
- JCC1313H Environmental Microbiology
- JNC2503H Environmental Pathways
- STA1004H Introduction to Experimental Design

Enrolment and Completion

Students should contact Alison Morley (meng.civmin@utoronto.ca) to declare their interest, so that they can be notified of water engineering-related events and extracurricular activities.

To receive acknowledgment of the emphasis on their transcript, it is the student's responsibility to declare completion of the emphasis to their home department's graduate program administrator at the same time that they are requesting convocation. The student may also reach out to meng.civmin@utoronto.ca to confirm the completion of the emphasis.

Emphasis: Analytics (MEng only)

To be admitted to the emphasis in Analytics, MEng students must first successfully complete a prerequisite course APS1070H (0.5 full-course equivalent [FCE]).

Subsequently, to earn the emphasis, students must successfully complete four additional half courses (2.0 FCEs) from the list of core courses or elective courses. These must include at least one core course, the remaining courses must be selected from the list of elective courses.

Students must have completed the prerequisite course APS1070H before taking any of the core courses.

Prerequisite Course

APS1070H Foundations of Data Analytics and Machine Learning

Core Courses

CHE1147H Data Mining in Engineering
ECE1513H Introduction to Machine Learning (exclusions: CSC411H1, CSC2515H, ECE421H1, ECE1504H)
MIE1624H Introduction to Data Science and Analytics (exclusion: MIE1626H)
MIE1626H Data Science Methods and Statistical Learning (exclusion: MIE1624H)
MSE1065H Application of Artificial Intelligence in Materials Design (exclusion: MSE1063H).

Elective Courses


Emphasis: Building Science (MEng only)

MEng students must successfully complete at least six half courses (3.0 full-course equivalents [FCEs]) with a combination of core and elective courses as detailed below. One or two of the optional courses may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Building Science emphasis coordinator.

Core Courses (complete at least four):

CIV575H1 Building Science
CIV576H1 Sustainable Buildings
CIV578H1 Design of Building Enclosures
CIV1282H Case Studies in Building Science
CIV1320H *Indoor Air Quality*
MIE507H1 *HVAC Fundamentals.*

**Elective Courses (others can be approved by the emphasis coordinator):**

CIV514H1, CIV536H1, CIV577H1, CIV1279H, CIV1299H, MIE515H1, MIE1240H.

**Emphasis: Concrete (MEng only)**

MEng students must successfully complete six of the following technical courses (3.0 full-course equivalents [FCEs]), one or two of which may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Concrete emphasis coordinator.

CIV514H1, CIV517H1, CIV1201H, CIV1250H, CIV1252H, CIV1260H, CIV1262H, CIV1275H, CIV1504H.

**Emphasis: Construction Management (MEng only)**

MEng students must successfully complete six of the following technical courses (3.0 full-course equivalents [FCEs]), one or two of which may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Construction Management emphasis coordinator.

APS1001H, APS1004H, APS1005H, APS1017H, CIV1279H, CIV1281H, CIV1299H, CIV1307H, CIV1504H, MIE562H1, MIE1413H.

**Emphasis: Engineering and Globalization (MEng only)**

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) from the following lists, with at least two half courses (or one full course) chosen from Group A.

**Group A**

APS510H1, APS530H1, APS1420H, JCR1000Y (full-year course).

**Group B**

APS1015H, APS1020H, APS1024H, CHL5700H, CIV1399H.

Note: Students who choose to pursue an MEng project in their home department that aligns with the Centre for Global Engineering (CGEN)'s disciplinary focus, as deemed by the CGEN Director, may count the project as one required Group B course.

Students who complete the requirements of the emphasis in Engineering and Globalization and wish to obtain a notation on their transcript should contact the Faculty Graduate Studies office.

**Emphasis: Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) (MEng only)**

MEng students must successfully complete any four of the following courses (2.0 full-course equivalents [FCEs]):

**Leadership**


**Entrepreneurship and Innovation**

APS511H1, APS1012H, APS1013H, APS1015H, APS1023H, APS1033H, APS1035H, APS1036H, APS1041H, APS1061H, APS1088H

**Finance and Management**


**Engineering and Society**

APS101H1, APS1018H, APS1024H, APS1025H, APS1031H, APS1034H, APS1101H, APS1420H.

**Emphasis: Environmental Engineering (MEng only)**

MEng students must successfully complete six of the following technical courses (3.0 full-course equivalents [FCEs]), one or two of which may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Environmental Engineering emphasis coordinator.

CHE1134H, CHE1150H, CHE1180H, CHE1431H, CHE1432H, CHL5903H, CIV541H1, CIV550H1, CIV577H1, CIV1303H, CIV1307H, CIV1308H, CIV1311H, CIV1319H, CIV1320H, CIV1399H, CME549H1, ENV1001H, ENV1701H, JCC1313H, JNC2503H, MIE1240H.

**Emphasis: Forensic Engineering (MEng only)**

MEng students must successfully complete four courses (one core course and three elective courses; 2.0 full-course equivalents [FCEs]) from the list below.
Core Course

MSE1031H Forensic Engineering.

Elective Courses


Emphasis: Geomechanics (MEng only)

MEng students must successfully complete six of the following technical courses (3.0 full-course equivalents [FCEs]), one or two of which may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Geomechanics emphasis coordinator.

CIV523H1, CIV1404H, CIV1419H, CIV1420H, CIV1429H, CIV1498H, CIV1499H, MIN540H1, MIN565H1.

Emphasis: Structural Engineering (MEng only)

MEng students must successfully complete six of the following technical courses (3.0 full-course equivalents [FCEs]), one or two of which may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Structural Engineering emphasis coordinator.

CIV510H1, CIV514H1, CIV515H1, CIV517H1, CIV518H1, CIV519H1, CIV1163H, CIV1164H, CIV1167H, CIV1169H, CIV1171H, CIV1174H, CIV1175H, CIV1180H, CIV1361H.

Emphasis: Sustainable Energy (MASc, MEng, PhD)

MASc and PhD students must successfully complete:

- Four half courses (2.0 FCEs) from either of the following lists below, including at least one core course (0.5 FCE).

Core Courses

APS1032H Introduction to Energy Project Management
MIE515H1 Alternative Energy Systems
MIE1120H Current Energy Infrastructure and Resources.

Elective Courses


Contact

All students are asked to register with Climate Positive Energy (CPE) at emphasis@cpe.utoronto.ca, at the beginning of their studies, to receive information about energy-related activities and opportunities on campus. CPE also administers a number of awards and scholarships for which students may be eligible.

Emphasis: Sustainable Urban Systems (MEng only)

MEng students must successfully complete six of the following technical courses (3.0 full-course equivalents [FCEs]), one or two of which may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Sustainable Urban Systems emphasis coordinator.

APS510H1, APS1024H, APS1025H, CIV514H1, CIV516H1, CIV531H1, CIV575H1, CIV576H1, CIV577H1, CIV1201H, CIV1252H, CIV1280H, CIV1303H, CIV1307H, CIV1535H, ECE1092H, ENV1001H, MIE515H1, MIE1120H, MIE1240H, MIE1715H.

Emphasis: Transportation Engineering and Planning (MEng only)

MEng students must successfully complete six of the following technical courses (3.0 full-course equivalents [FCEs]), one or two of which may be a one-session (CIV1001H) or two-session (CIV1002Y) project (not listed below). Other courses may be considered but will require approval of the Transportation Engineering and Planning emphasis coordinator.

CIV516H1, CIV531H1, CIV536H1, CIV1307H, CIV1506H, CIV1508H, CIV1532H, CIV1535H, CIV1536H, CIV1538H.
Emphasis: Waterpower (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]), including one core course. The remaining coursework may be taken from the following lists.

Core Course

APS1410H Waterpower Essentials.

Group A (complete at least one)

APS1411H (prerequisite: APS1410H), CIV550H1.

Group B (complete at least one)


Civil and Mineral Engineering: Civil Engineering MASc, MEng, PhD Courses

Not all courses are given every year. Some courses may require a prerequisite. Please consult the department.

General Interest

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<td>Managing Business Innovation and Transformational Change</td>
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<td>APS1070H</td>
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<td>APS1411H</td>
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Building Engineering

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<td>CIV580H1</td>
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<td>CIV1201H</td>
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<td>CIV1240H</td>
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<tr>
<td>CIV1260H</td>
<td>Chemistry of Cements and Concrete (prerequisite: CIV1252H)</td>
</tr>
<tr>
<td>CIV1262H</td>
<td>Microscopy Applied to Concrete and Geomaterials</td>
</tr>
<tr>
<td>CIV1275H</td>
<td>Construction Modeling Methods</td>
</tr>
<tr>
<td>CIV1278H</td>
<td>Pre-Project Planning and Constructability Analysis</td>
</tr>
<tr>
<td>CIV1279H</td>
<td>Construction Contract Documents</td>
</tr>
<tr>
<td>CIV1280H</td>
<td>Building Envelope Design</td>
</tr>
<tr>
<td>CIV1281H</td>
<td>Asset Management</td>
</tr>
<tr>
<td>CIV1282H</td>
<td>Case Studies in Building Science</td>
</tr>
<tr>
<td>CIV1283H</td>
<td>Advanced Asset Management: Quantitative Tools and Methods</td>
</tr>
<tr>
<td>CIV1285H</td>
<td>Building Information Modelling</td>
</tr>
<tr>
<td>CIV1296H</td>
<td>Special Studies in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1297H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1298H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1299H</td>
<td>New Topics in Civil and Mineral Engineering</td>
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Environmental Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CIV541H1</td>
<td>Environmental Biotechnology</td>
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<tr>
<td>CIV550H1</td>
<td>Water Resources Engineering</td>
</tr>
<tr>
<td>CIV1302H</td>
<td>Low Impact Development and Stormwater Systems</td>
</tr>
<tr>
<td>CIV1303H</td>
<td>Water Resources Systems Modelling</td>
</tr>
<tr>
<td>CIV1307H</td>
<td>Life Cycle Assessment of Engineering Activities</td>
</tr>
<tr>
<td>CIV1308H</td>
<td>Physical and Chemical Treatment Processes</td>
</tr>
<tr>
<td>CIV1309H</td>
<td>Biological Treatment Processes</td>
</tr>
<tr>
<td>CIV1311H</td>
<td>Advanced and Sustainable Drinking Water Treatment</td>
</tr>
<tr>
<td>CIV1319H</td>
<td>Chemistry and Analysis of Water and Wastes</td>
</tr>
<tr>
<td>CIV1320H</td>
<td>Indoor Air Quality</td>
</tr>
<tr>
<td>CIV1321H</td>
<td>Large Scale Infrastructure and Sustainability</td>
</tr>
<tr>
<td>CIV1330H</td>
<td>Water, Sanitation, Hygiene, and Global Health</td>
</tr>
<tr>
<td>CIV1396H</td>
<td>Special Studies in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1397H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1398H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1399H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CME549H1</td>
<td>Groundwater Flow and Contamination</td>
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Structural Engineering

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CIV510H1</td>
<td>Solid Mechanics II</td>
</tr>
<tr>
<td>CIV514H1</td>
<td>Concrete Technology</td>
</tr>
<tr>
<td>CIV515H1</td>
<td>Introduction to Structural Dynamics</td>
</tr>
<tr>
<td>CIV517H1</td>
<td>Prestressed Concrete</td>
</tr>
<tr>
<td>CIV518H1</td>
<td>Behaviour and Design of Steel Structures</td>
</tr>
<tr>
<td>CIV519H1</td>
<td>Structural Analysis II</td>
</tr>
<tr>
<td>CIV1163H</td>
<td>Mechanics of Reinforced Concrete</td>
</tr>
<tr>
<td>CIV1164H</td>
<td>Bridge Engineering</td>
</tr>
<tr>
<td>CIV1167H</td>
<td>Advanced Structural Dynamics</td>
</tr>
<tr>
<td>CIV1169H</td>
<td>Advanced Topics in Building Design</td>
</tr>
<tr>
<td>CIV1171H</td>
<td>Earthquake Engineering and Seismic Design</td>
</tr>
<tr>
<td>CIV1174H</td>
<td>Finite Element Methods in Structural Mechanics</td>
</tr>
<tr>
<td>CIV1175H</td>
<td>Design of Tubular Steel Structures</td>
</tr>
<tr>
<td>CIV1180H</td>
<td>Advanced Modeling Methods for Seismic Performance Assessment of Structures</td>
</tr>
<tr>
<td>CIV1190H</td>
<td>Structures Under Blast and Impact</td>
</tr>
<tr>
<td>CIV1196H</td>
<td>Special Studies in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1197H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1198H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1199H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1361H</td>
<td>Reinforced and Prestressed Concrete Structures</td>
</tr>
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</table>

Geomechanics

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CIV521H1</td>
<td>Rock Mechanics</td>
</tr>
<tr>
<td>CIV523H1</td>
<td>Geotechnical Design</td>
</tr>
<tr>
<td>CIV1404H</td>
<td>Material Fracture Dynamics: Experimental Methods</td>
</tr>
<tr>
<td>CIV1420H</td>
<td>Soil Properties and Behaviour</td>
</tr>
<tr>
<td>CIV1421H</td>
<td>Continuum Mechanics of Fluids and Solids</td>
</tr>
<tr>
<td>CIV1422H</td>
<td>Dynamic Response of Engineering Materials</td>
</tr>
<tr>
<td>CIV1429H</td>
<td>Advanced Rock Engineering: Rock Engineering in Fractured Rock Masses</td>
</tr>
<tr>
<td>CIV1430H</td>
<td>Engineering Rock Mechanics</td>
</tr>
<tr>
<td>CIV1496H</td>
<td>Special Studies in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1497H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
<tr>
<td>CIV1498H</td>
<td>New Topics in Civil and Mineral Engineering</td>
</tr>
</tbody>
</table>

Transportation Engineering and Planning

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV516H1</td>
<td>Public Transit Operations and Planning</td>
</tr>
<tr>
<td>CIV531H1</td>
<td>Transport Planning</td>
</tr>
<tr>
<td>CIV1505H</td>
<td>Transportation Research Seminar</td>
</tr>
<tr>
<td>CIV1506H</td>
<td>Freight Transportation and ITS Applications</td>
</tr>
</tbody>
</table>
Civil and Mineral Engineering: Cities Engineering and Management MEngCEM

Master of Engineering in Cities Engineering and Management

Program Description

Cities are the economic engines of the world. Highly skilled professionals, armed with both technical expertise and a fundamental understanding of the cross-disciplinary issues, are needed to help our cities tackle challenges to ensure the well-being of their inhabitants and economies. In the Master of Engineering: Cities Engineering and Management (MEngCEM) program, students prepare for rewarding careers in government and the private sector, addressing the critical issues and growing needs of urban centres.

To proactively respond to the changing needs of cities, the MEngCEM program offers students a practicum to apply what they have learned in the classroom.

The MEngCEM program can be completed through full-time studies over three continuous sessions or through an extended full-time (EFT) option over six sessions.

Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering’s additional admission requirements stated below.
- A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of mid-B (3.0 out of 4.0 or 75%). Competitive admission averages are typically near or above 80% (A–).
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Applicants with backgrounds in an applied science other than engineering may be admitted.
- Applicants must have one year of work experience before admission to the program.

Program Requirements

- Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - 4.0 FCEs (eight half courses) consisting of
    - four core courses:
      - CEM1001H The Challenges of Urban Policy-Making
      - CEM1002H Data Analytics and Cities
      - CEM1003H Infrastructure and Urban Prosperity
      - CEM1004H Cities as Complex Systems
    - three infrastructure engineering electives in one of eight specialization areas (see course listing below)
    - one technology management elective (see course listing below).
  - 1.0 FCE Practicum typically completed during the Summer of Year 1.

Program Length

3 sessions (typical registration sequence: F/W/S)

Time Limit

3 years

Extended Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Civil Engineering’s additional admission requirements stated below.
- A completed undergraduate degree equivalent to a four-year University of Toronto program with a minimum final-year grade point average (GPA) of mid-B (3.0 out of 4.0 or 75%). Competitive admission averages are typically near or above 80% (A–).
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Applicants with backgrounds in an applied science other than engineering may be admitted.
- Applicants must have one year of work experience before admission to the program.

Program Requirements

- Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - 4.0 FCEs (eight half courses) consisting of
four core courses:
- CEM1001H The Challenges of Urban Policy-Making
- CEM1002H Data Analytics and Cities
- CEM1003H Infrastructure and Urban Prosperity
- CEM1004H Cities as Complex Systems

three infrastructure engineering electives in one of eight specialization areas (see course listing below)

one technology management elective (see course listing below).

1.0 FCE Practicum typically completed during the Summer of Year 2.

Program Length

6 sessions (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

Civil and Mineral Engineering: Cities
Engineering and Management MEngCEM

Courses must be approved by the Program Director.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM1001H</td>
<td>The Challenges of Urban Policy-Making</td>
</tr>
<tr>
<td>CEM1002H</td>
<td>Empirical Study of Cities</td>
</tr>
<tr>
<td>CEM1003H</td>
<td>Infrastructure and Urban Prosperity</td>
</tr>
<tr>
<td>CEM1004H</td>
<td>Cities as Complex Systems</td>
</tr>
<tr>
<td>CEM1000Y</td>
<td>Cities Engineering and Management Practicum</td>
</tr>
</tbody>
</table>

Infrastructure Engineering Course Electives


The course selection (subject to change) in each infrastructure engineering specialization area is:

Cybersecurity

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE568H1</td>
<td>Computer Security</td>
</tr>
</tbody>
</table>
## Resilience of Critical Infrastructure

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS1024H</td>
<td>Infrastructure Resilience Planning</td>
</tr>
<tr>
<td>APS1025H</td>
<td>Infrastructure Protection</td>
</tr>
<tr>
<td>APS1031H</td>
<td>Infrastructure Planning</td>
</tr>
<tr>
<td>URD1044H</td>
<td>Urban Design and Development</td>
</tr>
<tr>
<td>URD2041H</td>
<td>Business and Land Use Planning in Real Estate Development</td>
</tr>
</tbody>
</table>

## Technology Management Course Electives

The course list is subject to change.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS1001H</td>
<td>Project Management</td>
</tr>
<tr>
<td>APS1005H</td>
<td>Operations Research for Engineering Management</td>
</tr>
<tr>
<td>APS1009H</td>
<td>Natural Resources Management</td>
</tr>
<tr>
<td>APS1012H</td>
<td>Managing Business Innovation and Transformational Change</td>
</tr>
<tr>
<td>APS1015H</td>
<td>Social Entrepreneurship</td>
</tr>
<tr>
<td>APS1016H</td>
<td>Financial Management for Engineers</td>
</tr>
<tr>
<td>APS1017H</td>
<td>Supply Chain Management and Logistics</td>
</tr>
<tr>
<td>APS1024H</td>
<td>Infrastructure Resilience Planning</td>
</tr>
<tr>
<td>APS1025H</td>
<td>Infrastructure Protection</td>
</tr>
<tr>
<td>APS1031H</td>
<td>Infrastructure Planning</td>
</tr>
<tr>
<td>APS1036H</td>
<td>Formative Experiential Entrepreneurial Learning (FEEL)</td>
</tr>
<tr>
<td>APS1037H</td>
<td>Infrastructure Engineering in Remote First Nation Communities in Ontario</td>
</tr>
<tr>
<td>APS1038H</td>
<td>Strategic Sustainability Management for Businesses and Products</td>
</tr>
<tr>
<td>APS1039H</td>
<td>Enterprise Risk Management</td>
</tr>
<tr>
<td>APS1040H</td>
<td>Quality Control for Engineering Management</td>
</tr>
<tr>
<td>APS1088H</td>
<td>Business Planning and Execution for Canadian Entrepreneurs</td>
</tr>
<tr>
<td>APS1202H</td>
<td>Engineering and Sustainable Development</td>
</tr>
<tr>
<td>CHE1435H</td>
<td>Fundamentals of Aerosol Physics and Chemistry</td>
</tr>
<tr>
<td>CIV1307H</td>
<td>Life Cycle Assessment and Sustainability of Engineering Activities</td>
</tr>
<tr>
<td>TEP1010H</td>
<td>Cognitive and Psychological Foundations of Effective Leadership</td>
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## Sustainable Energy Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>APS510H1</td>
<td>Innovative Technologies and Organizations in Global Energy Systems</td>
</tr>
<tr>
<td>ECE1092H</td>
<td>Smart Grid Case Studies</td>
</tr>
<tr>
<td>MIE515H1</td>
<td>Alternative Energy Systems</td>
</tr>
<tr>
<td>MIE1120H</td>
<td>Current Energy Infrastructure and Resources</td>
</tr>
<tr>
<td>MIE1240H</td>
<td>Wind Power</td>
</tr>
<tr>
<td>MIE1715H</td>
<td>Life Cycle Engineering</td>
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## Transportation

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<th>Course Title</th>
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<tr>
<td>CIV516H1</td>
<td>Public Transit Operations and Planning</td>
</tr>
<tr>
<td>CIV531H1</td>
<td>Transport Planning</td>
</tr>
<tr>
<td>CIV1506H</td>
<td>Freight Transportation and ITS Applications</td>
</tr>
<tr>
<td>CIV1508H</td>
<td>Airport Planning and Engineering</td>
</tr>
<tr>
<td>CIV1532H</td>
<td>Fundamentals of ITS and Traffic Management</td>
</tr>
<tr>
<td>CIV1535H</td>
<td>Transportation and Development</td>
</tr>
<tr>
<td>CIV1538H</td>
<td>Transportation Demand Analysis</td>
</tr>
<tr>
<td>CIV1598H</td>
<td>Special Studies in Civil Engineering — Transportation: Urban Operations Research</td>
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## Urban Structures

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>APS1024H</td>
<td>Infrastructure Resilience Planning</td>
</tr>
<tr>
<td>APS1025H</td>
<td>Infrastructure Protection</td>
</tr>
<tr>
<td>CIV576H1</td>
<td>Sustainable Buildings</td>
</tr>
</tbody>
</table>
Classics

Classics: Introduction
Faculty Affiliation
Arts and Science

Degree Programs

Classics

MA and PhD

- Fields:
  - Ancient Philosophy;
  - Greek and Roman History and Material Culture;
  - Greek and Roman Literature

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Ancient and Medieval Philosophy
  - Classics, PhD
- Book History and Print Culture
  - Classics, MA, PhD
- Jewish Studies
  - Classics, MA, PhD
- Mediterranean Archaeology
  - Classics, PhD
- Sexual Diversity Studies
  - Classics, MA, PhD
- Women and Gender Studies
  - Classics, MA, PhD

Overview

The Department of Classics provides advanced training in the fields of Ancient Philosophy; Greek and Roman History and Material Culture; and Greek and Roman Literature. Note that the field names for the MA and PhD will change for the 2024-25 academic year. This calendar entry includes both information on the current Classics MA and PhD requirements as well as the requirements that will be in effect for the 2024-25 academic year.

Collaborative specializations, listed above, are available to students enrolled in the specified participating degree programs.

Information about admission, application procedures, and funding is available from the department.

Contact and Address

Web: classics.utoronto.ca
Email: grad.classics@utoronto.ca
Telephone: (416) 978-5513
Fax: (416) 978-7307

Department of Classics
University of Toronto
125 Queen's Park

Classics: Graduate Faculty

Full Members

Akrigg, Ben - BA, PhD
Barney, Rachel - BA, PhD
Bendlin, Andreas - PhD
Bernard, Seth - BA, PhD (Graduate Coordinator, Associate Chair)
Blouin, Katherine - BA, MA, PhD, PhD
Boys-Stones, George - MA, DPhil (Chair and Graduate Chair)
Bruun, Christer - BA, MA, PhD
Burgess, Jonathan - BA, MA, PhD
Chrubasik, Boris - MA, PhD
Dewar, Michael - BA, MA, DPhil
Gunderson, Erik - BA, MA, PhD
Hoeschele, Regina - MA, PhD
Keith, Alison - BA, MA, PhD, FRSC
Lytle, Ephraim - BA, PhD
Magee, John - BA, MA, PhD
Revermann, Martin - PhD
Welsh, Jarrett - BA, MA, PhD
Wohl, Victoria - BA, MA, PhD

Members Emeriti

Barnes, Timothy - BA, MA, DPhil, FRSC
Beck, Roger - BA, MA, PhD
Grant, John - BA, MA, PhD
Inwood, Brad - BA, MA, PhD, FRSC
Irwin, Marjorie - BA, PhD, PhD
McDonough, Christopher - BA, MA, PhD
Rist, John - MA
Traill, John - BA, MA, PhD

Associate Members

Atkins, Carrie - BA, MA, PhD
Balot, Ryan - BA, AM, PhD
Ewald, Bjorn - AM, PhD
King, Peter - BA, PhD
Kloppenborg, John - BA, MA, PhD
Knappett, Carl - MA, PhD
Marshall, John - BA, MA, PhD
Orwin, Clifford - AB, AM, PhD
Weinrib, Ernest - BA, LLB, PhD
Yu, Kenneth - PhD

Classics: Classics MA

Master of Arts

Program Description

Applicants may be admitted to either the two-year MA program or the one-year advanced-standing option, depending on their level of preparation.
At the time of application, students are encouraged to indicate their preference for one of the three fields offered: Greek and Roman History and Material Culture, Greek and Roman Literature, and Ancient Philosophy. The MA program may be taken on a part-time basis.

**MA Program (Two-Year)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics’ additional admission requirements stated below.
- Successful completion of an appropriate bachelor’s program in classics or a related field, with at least a B+ average in the final year. For applicants who expect to focus on the areas of Greek and Roman Literature or Ancient Philosophy, the equivalent of three years of training in either Greek or Latin and two years of training in the other language is recommended. For applicants who expect to focus on the area of Greek and Roman History and Material Culture, the equivalent of three years of training in either Greek or Latin and demonstrated excellence in the study of Greek and Roman history and material culture is recommended.
- Students who are otherwise qualified but who lack the required amount of training in Greek and Latin or in Greek and Roman history and material culture should consult with the department about further preparation.

**Program Requirements**

- **Year 1:** Students normally complete at least 3.0 full-course equivalents (FCEs) selected in consultation with the Graduate Coordinator from departmental language courses and seminars. Students who do not complete these courses with appropriate standing may be required to withdraw from the MA program or to retake the courses.
- **Year 2:** Students normally complete at least 3.0 FCEs, including the Graduate Research Paper, selected in consultation with the Graduate Coordinator, and complete the sight translation examination and qualifying examination(s) required by the field they have chosen in consultation with the Graduate Coordinator.
  - Completion of one (0.5 FCE) of GRK1000H or LAT1000H (intensive advanced language skills), or equivalent, or a course from the GRK/LAT1800H series, with a grade of at least B–.
  - Completion of three additional graduate courses (1.5 FCEs).
  - Completion of the Ancient History Methods Course (CLA3020Y; Credit/No Credit), only for students whose area is Greek and Roman History and Material Culture.
  - Completion of CLA2000Y (1.0 FCE) Graduate Research Paper with a grade of at least B. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
  - Completion of the sight translation examination in either Greek or Latin with a grade of at least B–.
  - Completion of the Greek qualifying examination and the Latin qualifying examination (three-hour translation exam in each language, including both prose and poetry) with a grade of at least B–. Students whose field is Greek and Roman History and Material Culture may choose to satisfy this requirement by:
    - completing either the Greek or the Latin qualifying examination with a grade of at least B– and by completing one language course in the other language with a grade of at least B+,
    - earning credit for the relative 1000H Advanced Language Studies course.
  - Successful completion of an appropriate bachelor’s program in classics or a related field, with at least a B+ average in the final year. For applicants who expect to focus on the areas of Greek and Roman Literature or Ancient Philosophy, the equivalent of at least three and preferably four years of training in Greek and Latin is recommended. For applicants who expect to focus on the area of Greek and Roman History and Material Culture, the equivalent of three years of training in either Greek or Latin and demonstrated excellence in the study of Greek and Roman history and material culture is recommended.
  - Students who are otherwise qualified but who lack the required amount of training in Greek and Latin or in Greek and Roman history and material culture should consult with the department about further preparation.

**Program Length**

- 6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
- 9 sessions part-time

**Time Limit**

- 3 years full-time;
- 6 years part-time

**MA Program (One-Year Advanced-Standing Option)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics’ additional admission requirements stated below.
- Successful completion of an appropriate bachelor’s program in classics or a related field, with at least a B+ average in the final year. For applicants who expect to focus on the areas of Greek and Roman Literature or Ancient Philosophy, the equivalent of at least three and preferably four years of training in Greek and Latin is recommended. For applicants who expect to focus on the area of Greek and Roman History and Material Culture, the equivalent of three years of training in either Greek or Latin and demonstrated excellence in the study of Greek and Roman history and material culture is recommended.
- Students who are otherwise qualified but who lack the required amount of training in Greek and Latin or in Greek and Roman history and material culture should consult with the department about further preparation.

**Program Requirements**

- Students normally complete at least 3.0 full-course equivalents (FCEs), including the Graduate Research Paper, selected in consultation with the Graduate Coordinator, and complete the sight translation examination and qualifying examination(s).
  - Completion of one (0.5 FCE) of GRK1000H or LAT1000H (intensive advanced language skills), or equivalent, or a course from the GRK/LAT1800H series, with a grade of at least B–.
  - Completion of three additional graduate courses (1.5 FCEs).
  - Completion of the Ancient History Methods Course (CLA3020Y; Credit/No Credit), only for students whose area is Greek and Roman History and Material Culture.
• Completion of CLA2000Y (1.0 FCE) Graduate Research Paper with a grade of at least B. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.

• Completion of the sight translation examination in either Greek or Latin with a grade of at least B–.

• Completion of the Greek qualifying examination and the Latin qualifying examination (three-hour translation exam in each language, including both prose and poetry) with a grade of at least B–. Students whose field is Greek and Roman History and Material Culture may only choose to satisfy this requirement by:
  ▪ completing either the Greek or the Latin qualifying examination with a grade of at least B– and by completing one language course in the other language with a grade of at least B+, or by
  ▪ earning credit for the relative 1000H Advanced Language Studies course.

Program Requirements

The two-year MA program consists of 6.0 full-course equivalents (FCEs) selected in consultation with the Graduate Coordinator, which includes a 1.0 FCE Graduate Research Paper (CLA2000Y), and completion of the sight translation examination. Students normally complete 3.0 FCEs in Year 1 and 3.0 FCEs in Year 2.

• Coursework. Students must successfully complete a total of 6.0 FCEs as follows:
  o CLA2000Y Graduate Research Paper (1.0 FCE) completed by May of Year 2 with a minimum grade of B. Progress is assessed at the end of the Fall session with an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words long). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
  o CLA3020Y Ancient History Methods Course (1.0 FCE; Credit/No Credit).
  o The remaining 4.0 FCEs are electives selected in consultation with the Graduate Coordinator as follows:
    ▪ 0.5 FCE selected from GRK1000H or LAT1000H, or one or more CLA1300-series courses may be recommended for students with less language preparation. Placement in Greek and Latin courses is based upon an ungraded diagnostic exam taken upon entry.
    ▪ 3.5 FCEs selected from the CLA1300-level series, CLA5000-level series, GRK/LAT1000H, the GRK/LAT1800-level series, MAC1000H, or MAC2000H. Students may take courses from outside the department with the Graduate Coordinator's approval.
  o Students may, but are not required to, take the methodology courses outside their field.

• Sight translation examination. Completion in either Greek or Latin with a minimum grade of B–.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 9 sessions part-time

Time Limit

3 years full-time; 6 years part-time
MA Program (One-Year Advanced-Standing Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics’ additional admission requirements stated below.
- Successful completion of an appropriate bachelor's program in classics or a related field, with at least a B+ average in the final year.
- The equivalent of three years of training in either Greek or Latin and demonstrated excellence in the study of Greek and Roman history and material culture is recommended.
- Students who are otherwise qualified but who lack the required amount of training in Greek and Latin or in ancient history and material culture should consult with the department about further preparation.

Program Requirements

The one-year MA program consists of 4.0 **full-course equivalents (FCEs)** selected in consultation with the Graduate Coordinator, which includes a 1.0 FCE **Graduate Research Paper** (CLA2000Y), and completion of the **sight translation examination**.

- **Coursework.** Students must successfully complete a total of 4.0 FCEs as follows:
  - CLA2000Y **Graduate Research Paper** (1.0 FCE) completed by May with a minimum grade of B. Progress is assessed at the end of the Fall session with an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words long). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
  - CLA3020Y **Ancient History Methods Course** (1.0 FCE; Credit/No Credit).
  - The remaining 2.0 FCEs are electives selected in consultation with the Graduate Coordinator as follows:
    - 0.5 FCE selected from GRK1000H or LAT1000H, or one or more CLA1300-series courses may be recommended for students with less language preparation. Placement in Greek and Latin courses is based upon an ungraded diagnostic exam taken upon entry.
    - 1.5 FCEs selected from the CLA1300-level series, CLA5000-level series, GRK/LAT1000H, the GRK/LAT1800-level series, MAC1000H, or MAC2000H. Students may take courses from outside the department with the Graduate Coordinator’s approval.
  - Students may, but are not required to, take the methodology courses outside their field.
- **Sight translation examination.** Completion in either Greek or Latin with a minimum grade of B–.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
9 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Classics: Classics MA; Field: Greek and Roman Literature and Culture (Effective 2024-25)

Master of Arts

Program Description

Applicants may be admitted to either the two-year MA program or the one-year advanced-standing option, depending on their level of preparation. At the time of application, students are encouraged to indicate their preference for one of the three fields offered: 1) Ancient History and Material Culture or 2) Greek and Roman Literature and Culture. The MA program may be taken on a part-time basis.

MA Program (Two-Year)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics’ additional admission requirements stated below.
- Successful completion of an appropriate bachelor's program in classics or a related field, with at least a B+ average in the final year.
- The equivalent of three years of training in either Greek or Latin and two years of training in the other language is recommended.
- Students who are otherwise qualified but who lack the required amount of training in Greek and Latin or in ancient history and material culture should consult with the department about further preparation.

Program Requirements

The two-year MA program consists of 6.0 **full-course equivalents (FCEs)** selected in consultation with the Graduate Coordinator, which includes a 1.0 FCE **Graduate Research Paper** (CLA2000Y), and completion of the **sight translation examination**. Students normally complete 3.0 FCEs in Year 1 and 3.0 FCEs in Year 2.

- **Coursework.** Students must successfully complete a total of 6.0 FCEs as follows:
  - CLA2000Y **Graduate Research Paper** (1.0 FCE) completed by May of Year 2 with a minimum grade of B. Progress is assessed at the end of the Fall session with an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words long). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
The one-year MA program consists of 4.0 full-course equivalents (FCEs) selected in consultation with the Graduate Coordinator, which includes a 1.0 FCE Graduate Research Paper (CLA2000Y), and completion of the sight translation examination.

- **Coursework.** Students must successfully complete a total 4.0 FCEs as follows:
  - CLA2000Y Graduate Research Paper (1.0 FCE) completed by May with a minimum grade of B. Progress is assessed at the end of the Fall session with an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words long). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
  - 1.0 FCE from the GRK1800-level series or LAT1800-level series. CLA500-level seminars may be substituted with permission of the Graduate Coordinator.
  - The remaining 2.0 FCEs are electives selected in consultation with the Graduate Coordinator as follows:
    - 0.5 FCE selected from GRK1000H or LAT1000H, or one or more CLA1300-series courses may be recommended for students with less language preparation.
    - 1.5 FCEs selected from the CLA1300-level series, CLA5000-level series, GRK/LAT1000, the GRK/LAT1800-level series, MAC1000H, or MAC2000H. Students may take courses from outside the department with the Graduate Coordinator's approval.

- **Sight translation examination.** Completion in either Greek or Latin with a minimum grade of B–.
• At the department's discretion, students who need additional preparation may be required to take a selection of courses approved by the department during Year 1 before beginning to prepare for the qualifying examinations. Students will be notified of such additional requirements at the time of their offers of admission or early in their first session.
  o CLA2000Y (1.0 FCE) Graduate Research Paper with a grade of at least A–. Doctoral students who complete the Graduate Research Paper at a lower standard which nevertheless satisfies the MA requirement will be granted the MA. Students admitted with advanced standing are exempt from the Graduate Research Paper.
  o 10 seminars with an A– average, including at least two outside the student's field of specialization (one of which must not be offered or cross-listed by the Department of Classics).
  o Satisfactory participation for at least two years in the seminar series for the student's field (SRD4444Y0 or AMP2000Y).

  • Qualifying exam. Completion of the Greek qualifying examination and Latin qualifying examination with grades of at least B+. One of these exams must be passed by the end of Year 2, and both must be passed by the end of Year 3 of the PhD. Doctoral students who complete the qualifying examinations at a lower standard which nevertheless satisfies the MA requirement will be granted the MA.
  • Satisfactory completion of sight translation examinations in both Greek and Latin with grades of at least B+. This requirement must be completed before the major field examination is attempted. Students whose field is Greek and Roman History may satisfy this requirement with a grade of at least B+ on the sight translation examination in one language and a grade of at least B on the sight translation examination in the other language.
  • Demonstration of adequate reading knowledge of two languages of research other than English, one of which will normally be German, before the major field examination is attempted.
  • Satisfactory completion of the major field examination (CLA4000Y0). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 3 of the program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which must involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 4.
  • The dissertation should be completed by the end of Year 5.

Program Length

5 years

Time Limit

6 years

0 Course that may continue over a program. The course is graded when completed.

PhD Program (Advanced-Standing)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics' additional admission requirements stated below.
• Applicants are admitted with advanced standing if they have successfully completed a strong master's program in Classics. Students who have completed the MA program in Classics at the University of Toronto are required to have grades of at least B+ in all graded coursework and a grade of at least A– on the Graduate Research Paper CLA2000Y.

Program Requirements

• Coursework. Satisfactory completion of:
  o GRK1000H (0.5 FCE) or equivalent
  o LAT1000H (0.5 FCE) or equivalent.
• 10 seminars with an A– average, including at least two outside the student's field of specialization (one of which must not be offered or cross-listed by the Department of Classics). Students who have completed CLA2000Y with a grade of at least A– for their MA degree, or who have a comparable achievement, need 8 seminars with an A– average.
• Satisfactory participation for at least two years in the seminar series for the student's field (SRD4444Y0 or AMP2000Y). This includes the Ancient History methods course for those students whose field is Greek and Roman History and Material Culture.

• Qualifying exams.
  o Completion of the Greek qualifying examination and Latin qualifying examination with grades of at least B+.
  o Completion of the respective Area examination with a grade of at least B+ for students whose field is Greek and Roman Literature or Greek and Roman History and Material Culture.
  o Completion of the respective Area examination with a grade of at least B+ for students whose field is Greek and Roman History and Material Culture.

• Satisfactory completion of sight translation examinations in both Greek and Latin with grades of at least B+. This requirement must be completed before the major field examination is attempted. Students whose field is Greek and Roman History and Material Culture may choose to complete either the Greek qualifying examination or the Latin qualifying examination with a grade of B+ based on the MA reading list instead of the PhD reading list. Students in this field who are enrolled in the Mediterranean Archaeology collaborative specialization (MACS) may choose to satisfy the other language examination by passing an 1800H-level language course in that language with a B+. One of these exams must be passed by the end of Year 2, and both must be passed by the end of Year 3 of the four-year PhD program, but passing the exams at an earlier stage is advisable. Doctoral students who complete the qualifying examinations at a lower standard which nevertheless satisfies the MA requirement will be granted the MA.
  o Completion of the respective Area examination with a grade of at least B+ for students whose field is Greek and Roman Literature or Greek and Roman History and Material Culture.
Students in this field who are enrolled in the Mediterranean Archaeology collaborative specialization (MACS) may choose to satisfy the other language examination by passing an 1800H-level language course in the other language with a B+.

- Demonstration of adequate reading knowledge of two languages of research other than English, one of which will normally be German, before the major field examination is attempted.

- Satisfactory completion of the major field examination (CLA4000Y\(^0\)). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 2 of the four-year PhD program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 3 of the four-year PhD program.

- The dissertation should be completed by the end of Year 4.

Program Length

4 years

Time Limit

6 years

\(^0\) Course that may continue over a program. The course is graded when completed.

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics' additional admission requirements stated below.

- Successful completion of a strong bachelor's program in classics of a related field with at least an A– average in the final year. For students who expect to focus on the areas of Greek and Roman Literature or Ancient Philosophy, at least three years of study in both Greek and Latin and a broad preparation in the reading of ancient texts in the original languages is recommended. For applicants who expect to focus on the area of Greek and Roman History and Material Culture, the equivalent of three years of training in either Greek or Latin, familiarity with the other language, and demonstrated excellence in the study of Greek and Roman history and material culture is required.

Program Requirements

- Coursework. Satisfactory completion of:
  - GRK1000H (0.5 FCE) or equivalent
  - LAT1000H (0.5 FCE) or equivalent.

- 10 seminars with an A– average, including at least two outside the student’s field of specialization (one of which must not be offered or cross-listed by the Department of Classics).

- With permission of the Graduate Coordinator, two of the seminars in Year 1 may be exchanged for CLA2000Y (1.0 FCE) Graduate Research Paper. A grade of A– is required for completion. Doctoral students who complete the Graduate Research Paper at a lower standard which nevertheless satisfies the MA requirement will be granted the MA.

- Satisfactory participation for at least two years in the seminar series for the student’s field (SRD4444Y\(^0\) or AMP2000Y). This includes the Ancient History methods course for those students whose field is Greek and Roman History and Material Culture.

- Qualifying exams.
  - Completion of the Greek qualifying examination and Latin qualifying examination with grades of at least B+.
  - Students in the Greek and Roman History and Material Culture field may choose to complete either the Greek qualifying examination or the Latin qualifying examination with a grade of B+ based on the MA requirement.
  - Students whose field is Greek and Roman History and Material Culture may choose either the Greek Language examination or the Latin Language examination.
  - Students whose field is Greek and Roman History and Material Culture may choose to complete the Latin Language examination with a grade of at least B+ on the sight translation examination in one language and a grade of at least B– on the sight translation examination in the other language. Students in this area of emphasis who are enrolled in the Mediterranean Archaeology collaborative specialization (MACS) may choose to satisfy the other language examination by passing an 1800H-level language course in that language with a B+. One of these exams must be passed by the end of Year 2, and both must be passed by the end of Year 3 of the five-year PhD program. Doctoral students who complete the qualifying examinations at a lower standard which nevertheless satisfies the MA requirement will be granted the MA.

- Completion of the respective Area examination with a grade of at least B+ for students whose field is Greek and Roman Literature or Greek and Roman History and Material Culture.

- Satisfactory completion of sight translation examinations in both Greek and Latin with grades of at least B+. This requirement must be completed before the major field examination is attempted. Students whose field is Greek and Roman History and Material Culture may satisfy this requirement with a grade of at least B+ on the sight translation examination in one language and a grade of at least B– on the sight translation examination in the other language. Students in this area of emphasis who are enrolled in the Mediterranean Archaeology collaborative specialization (MACS) may choose to satisfy the other language examination by passing an 1800H-level language course in that language with a B+.

- Demonstration of adequate reading knowledge of two languages of research other than English, one of which will normally be German, before the major field examination is attempted.

- Satisfactory completion of the major field examination (CLA4000Y\(^0\)). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 3 of the program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 4.

- The dissertation should be completed by the end of Year 5.
Program Requirements

5 years

Time Limit

7 years

Course that may continue over a program. The course is graded when completed.

Classics: Classics PhD; Field: Ancient History and Material Culture (Effective 2024-25)

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics’ additional admission requirements stated below.
- Applicants are considered for admission if they have successfully completed a master's program in classics with sufficient training for the field in which they are seeking admission.
- Students who have completed the MA program in Classics at the University of Toronto are required to have grades of at least B+ in all graded coursework and a grade of at least A– on the Graduate Research Paper CLA2000Y.

Program Requirements

- Coursework. Successful completion of 3.0 full-course equivalents (FCEs) with an A– average selected in consultation with the Graduate Coordinator. At the department's discretion, students who need additional language preparation may be required to take a selection of courses approved by the department during Year 1 before beginning to prepare for the qualifying examinations. Students will be notified of such additional requirements at the time of their offers of admission or early in their first session following the entrance diagnostic exam. The 3.0 FCEs will include:
  - CLA2000Y Graduate Research Paper (1.0 FCE) to be completed by May of Year 1 with a grade of at least A–. Progress is assessed at the end of the Fall session by an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor. Students who have previously completed CLA2000Y, or an equivalent graduate research paper, will instead complete 1.0 elective FCE selected in consultation with the Graduate Coordinator.
  - CLA3020Y Ancient History Methods Course (1.0 FCE; Credit/No Credit). Students who have previously completed CLA3020Y will instead complete 1.0 elective FCE selected from the following recommended courses: CLA1300-level series, CLA5000-level series, GRK/LAT1800-level series, and MAC1000H or MAC2000H. Students may only take up to 1.0 FCE in courses from the CLA1300-level series unless approved by the Graduate Coordinator. Of the 1.0 elective FCE:
    • At least 0.5 FCE is taken from courses not offered by or cross-listed by the Department of Classics.
    • Students may, but are not required to, take the methodology courses outside their field as part of the elective courses selected.
    • GRK1000H and LAT1000H, or courses below the GRK/LAT1000-level, are not eligible to fulfil the elective requirements.

- Qualifying exam. Successful completion of both Greek and Latin qualifying exams. One of these exams must be passed by May of Year 2, and both must be passed by January of Year 3; passing the exams at an earlier stage is advisable. Both exams must be passed before the major field examination is attempted. Students in the Mediterranean Archaeology Collaborative Specialization (MACS) are required to complete on qualifying exam in either Greek or Latin. The second exam may be replaced either by a B+ in a GRK/LAT1800-level series in an approved second language or by a passing grade on the sight translation exam in that language.
- Sight translation examinations. Successful completion in either Greek or Latin with a passing grade by May of Year 2. Students in the Mediterranean Archaeology Collaborative Specialization (MACS) are not required to complete sight translation examinations except as a way of fulfilling the requirement for their second qualifying exam.
- Demonstration of adequate reading knowledge of two modern languages of research other than English, one of which will normally be German, before the major field examination is attempted.
- Satisfactory completion of the major field examination (CLA4000Y). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 2 of the four-year PhD program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 3 of the four-year PhD program.
- The dissertation should be completed by the end of Year 4.

Program Length

4 years

Time Limit

6 years

Course that may continue over a program. The course is graded when completed.
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics' additional admission requirements stated below.
- Successful completion of a bachelor's program in classics of a related field with at least an A– average in the final year and sufficient training for the field in which they are seeking admission.
- The equivalent of three years of training in either Greek or Latin, familiarity with the other language, and demonstrated excellence in the study of Greek and Roman history and material culture is required.

Program Requirements

- Coursework. Successful completion of 6.0 full-course equivalents (FCEs) with an A– average selected in consultation with the Graduate Coordinator. This includes:
  - CLA2000Y Graduate Research Paper (1.0 FCE) to be completed by May of Year 1 with a grade of at least A–. Progress is assessed at the end of the Fall session by an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
  - CLA3020Y Ancient History Methods Course (1.0 FCE Credit/No Credit).
  - 4.0 elective FCEs selected from the following recommended courses: CLA1300-level series, CLA5000-level series, GRK/LAT1000-level series, GRK/LAT1800-level series, and MAC1000H or MAC2000H. Students may only take up to 1.0 FCE in courses from the CLA1300-level series unless approved by the Graduate Coordinator. Of the 4.0 elective FCEs:
    - At least 0.5 FCE is taken from courses not offered by or cross-listed by the Department of Classics.
    - Students may, but are not required to, take the methodology courses outside their field as part of the elective courses selected.

- Qualifying exams. Successful completion of both Greek and Latin qualifying exams. One of these exams must be passed by May of Year 2, and both must be passed by January of Year 3; passing the exams at an earlier stage is advisable. Both exams must be passed before the major field examination is attempted. Students in the Mediterranean Archaeology Collaborative Specialization (MACS) are required to complete the qualifying exam in either Greek or Latin. The second exam may be replaced either by a B+ in a GRK/LAT1800-level series in an approved second language or by a passing grade on the sight translation exam in that language.

- Sight translation examinations. Successful completion in either Greek or Latin with a passing grade by May of Year 2. Students in the Mediterranean Archaeology Collaborative Specialization (MACS) are not required to complete sight translation exams except as a way of fulfilling the requirement for their second qualifying exam.

- Demonstration of adequate reading knowledge of two modern languages of research other than English, one of which will normally be German, before the major field examination is attempted.

- Satisfactory completion of the major field examination (CLA4000Y0). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 3 of the program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 4.

- The dissertation should be completed by the end of Year 5.

Program Length

5 years

Time Limit

7 years

Classics: Classics PhD; Field: Ancient Philosophy (Effective 2024-25)

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics' additional admission requirements stated below.

- Applicants are considered for admission if they have successfully completed a master's program in classics with sufficient training for the field in which they are seeking admission.

- Students who have completed the MA program in Classics at the University of Toronto are required to have grades of at least B+ in all graded coursework and a grade of at least A– on the Graduate Research Paper CLA2000Y.

Program Requirements

- Coursework. Satisfactory completion of 3.0 full-course equivalents (FCEs) with an A– average selected in consultation with the Graduate Coordinator. At the department's discretion, students who need additional language preparation may be required to take a selection of courses approved by the department during Year 1 before beginning to prepare for the qualifying examinations. Students will be notified of such additional requirements at the time of their offers of admission or early in their first session following the entrance diagnostic exam. The 3.0 FCEs will include:
  - Course that may continue over a program. The course is graded when completed.
• CLA2000Y Graduate Research Paper to be completed by May of Year 1 with a grade of at least A–. Progress is assessed at the end of the Fall session by an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor. Students who have previously completed CLA2000Y, or an equivalent graduate research paper, will instead complete 1.0 elective FCE selected in consultation with the Graduate Coordinator.

• AMP2000Y Collaborative Specialization in Ancient and Medieval Philosophy (CSAMP) Proseminar (1.0 FCE). Students who have previously completed AMP2000Y will instead complete 1.0 elective FCE selected in consultation with the Graduate Coordinator.

• 1.0 elective FCE selected from the following recommended courses: CLA1300-level series, CLA5000-level series, GRK/LAT1800-level series, and MAC1000H or MAC2000H. Students may only take up to 1.0 FCE in courses from the CLA1300-level series unless approved by the Graduate Coordinator. Of the 1.0 elective FCE:
  ▪ At least 0.5 FCE is taken from courses not offered by or cross-listed by the Department of Classics.
  ▪ Students may, but are not required to, take the methodology courses outside their field as part of the elective courses selected.
  ▪ GRK1000H and LAT1000H, or courses below the GRK/LAT1000-level, are not eligible to fulfil the elective requirements.

• Qualifying exams. Successful completion of both Greek and Latin qualifying exams. One of these exams must be passed by May of Year 2, and both must be passed by January of Year 3; passing the exams at an earlier stage is advisable. Both exams must be passed before the major field examination is attempted.

• Sight translation examinations. Successful completion of both Greek and Latin sight translation examinations. One of these exams must be passed by May of Year 2, and both must be passed before the major field examination is attempted.

• Demonstration of adequate reading knowledge of two modern languages of research other than English, one of which will normally be German, before the major field examination is attempted.

• Satisfactory completion of the major field examination (CLA4000Y). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 2 of the four-year PhD program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 3 of the four-year PhD program.

• The dissertation should be completed by the end of Year 4.

Program Length

4 years

Time Limit

6 years

Course that may continue over a program. The course is graded when completed.

PhD Program (Direct-Entry)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics’ additional admission requirements stated below.

• Successful completion of a bachelor's program in classics of a related field with at least an A– average in the final year.

• At least three years of study in both Greek and Latin and a broad preparation in the reading of ancient texts in the original languages is recommended.

Program Requirements

• Coursework. Successful completion of 6.0 full-course equivalents (FCEs) with an A– average selected in consultation with the Graduate Coordinator. This includes:
  ▪ CLA2000Y Graduate Research Paper (1.0 FCE) to be completed by May of Year 1 with a grade of at least A–. Progress is assessed at the end of the Fall session by an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
  ▪ CLA3020Y Ancient History Methods Course (1.0 FCE; Credit/No Credit).
  ▪ 4.0 elective FCEs selected from the following recommended courses: CLA1300-level series, CLA5000-level series, GRK/LAT1000-level series, GRK/LAT1800-level series, and MAC1000H or MAC2000H. Students may only take up to 1.0 FCE in courses from the CLA1300-level series unless approved by the Graduate Coordinator. Of the 4.0 elective FCEs:
    ▪ At least 0.5 FCE is taken from courses not offered by or cross-listed by the Department of Classics.
    ▪ Students may, but are not required to, take the methodology courses outside their field as part of the elective courses selected.

• Qualifying exams. Successful completion of both Greek and Latin qualifying exams. One of these exams must be passed by May of Year 2, and both must be passed by January of Year 3; passing the exams at an earlier stage is advisable. Both exams must be passed before the major field examination is attempted.

• Sight translation examinations. Successful completion in either Greek or Latin with a passing grade by May of Year 2, and both must be passed before the major field examination is attempted.

• Demonstration of adequate reading knowledge of two modern languages of research other than English, one of which will normally be German, before the major field examination is attempted.
• Satisfactory completion of the major field examination (CLA4000Y®). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 3 of the program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 4.

• The dissertation should be completed by the end of Year 5.

Program Length

5 years

Time Limit

7 years

Course that may continue over a program. The course is graded when completed.

Classics: Classics PhD; Field: Greek and Roman Literature and Culture (Effective 2024-25)

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics' additional admission requirements stated below.

• Applicants are considered for admission if they have successfully completed a master's program in classics with sufficient training for the field in which they are seeking admission.

• Students who have completed the MA program in Classics at the University of Toronto are required to have grades of at least B+ in all graded coursework and a grade of at least A– on the Graduate Research Paper CLA2000Y.

Program Requirements

• Coursework. Successful completion of 3.0 full-course equivalents (FCEs) with an A– average selected in consultation with the Graduate Coordinator. At the department's discretion, students who need additional language preparation may be required to take a selection of courses approved by the department during Year 1 before beginning to prepare for the qualifying examinations. Students will be notified of such additional requirements at the time of their offers of admission or early in their first session following the entrance diagnostic exam. The 3.0 FCEs will include:

  • CLA2000Y Graduate Research Paper (1.0 FCE) to be completed by May of Year 1 with a grade of at least A–. Progress is assessed at the end of the Fall session by an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor. Students who have previously completed CLA2000Y, or an equivalent graduate research paper, will instead complete 1.0 elective FCE selected in consultation with the Graduate Coordinator.

  • 1.0 FCE from the GRK/LAT1800-series courses. Students may substitute with a CLA5000-level series course with permission of the Graduate Coordinator. Students who have previously completed these courses will instead complete 1.0 elective FCE selected in consultation with the Graduate Coordinator.

  • 1.0 elective FCE selected from the following recommended courses: CLA1300-level series, CLA5000-level series, GRK/LAT1800-level series, and MAC1000H or MAC2000H. Students may only take up to 1.0 FCE in courses from the CLA1300-level series unless approved by the Graduate Coordinator. Of the 1.0 elective FCE:

    - At least 0.5 FCE is taken from courses not offered by or cross-listed by the Department of Classics.

    - Students may, but are not required to, take the methodology courses outside their field as part of the elective courses selected.

    - GRK1000H and LAT1000H, or courses below the GRK/LAT1000-level, are not eligible to fulfill the elective requirements.

• Qualifying exams. Successful completion of both Greek and Latin qualifying exams. One of these exams must be passed by May of Year 2, and both must be passed by January of Year 3; passing the exams at an earlier stage is advisable. Both exams must be passed before the major field examination is attempted.

• Sight translation examinations. Successful completion of both Greek and Latin sight translation examinations. One of these exams must be passed by May of Year 2, and both must be passed before the major field examination is attempted.

• Demonstration of adequate reading knowledge of two modern languages of research other than English, one of which will normally be German, before the major field examination is attempted.

• Satisfactory completion of the major field examination (CLA4000Y®). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 2 of the four-year PhD program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 3 of the four-year PhD program.

• The dissertation should be completed by the end of Year 4.

Program Length

4 years
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Classics’ additional admission requirements stated below.
- Successful completion of a bachelor’s program in classics of a related field with at least an A– average in the final year.
- At least three years of study in both Greek and Latin and a broad preparation in the reading of ancient texts in the original languages is recommended.

Program Requirements

- **Coursework.** Successful completion of 6.0 full-course equivalents (FCEs) with an A– average selected in consultation with the Graduate Coordinator. This includes:
  - CLA2000Y Graduate Research Paper (1.0 FCE) to be completed by May of Year 1 with a grade of at least A–. Progress is assessed at the end of the Fall session by an interim pass/fail mark. Each student is assigned to a faculty advisor for CLA2000Y and works independently on the preparation of a research paper (about 8,000 words in length). The Graduate Research Paper is assessed by a committee of two faculty members, including the advisor.
  - 1.0 FCE from the GRK/LAT1800-series courses. Students may substitute with a CLA5000-level series course with permission of the Graduate Coordinator.
  - 4.0 elective FCEs selected from the following recommended courses: CLA1300-level series, CLA5000-level series, GRK/LAT1000-level series, GRK/LAT1800-level series, and MAC1000H or MAC2000H. Students may only take up to 1.0 FCE in courses from the CLA1300-level series unless approved by the Graduate Coordinator. Of the 4.0 elective FCEs:
    - At least 0.5 FCE is taken from courses not offered by or cross-listed by the Department of Classics.
    - Students may, but are not required to, take the methodology courses outside their field as part of the elective courses selected.

- **Qualifying exams.** Successful completion of both Greek and Latin qualifying exams. One of these exams must be passed by May of Year 2, and both must be passed by January of Year 3; passing the exams at an earlier stage is advisable. Both exams must be passed before the major field examination is attempted.

- **Sight translation examinations.** Successful completion of both Greek and Latin sight translation examinations. One of these exams must be passed by May of Year 2, and both must be passed before the major field examination is attempted.

- Demonstration of adequate reading knowledge of two modern languages of research other than English, one of which will normally be German, before the major field examination is attempted.

- Satisfactory completion of the **major field examination** (CLA4000Y0). The major field defines a broad area of specialization, within which the dissertation topic will fall. It is normally established by Year 3 of the program and is directed by the supervisory committee. Preparation for the major field examination includes the completion of a satisfactory research essay. The major field is examined by means of two written examinations, one of which may involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of Year 4.

  - The **dissertation** should be completed by the end of Year 5.

Program Length

- 5 years

Time Limit

- 7 years

Classics: Classics MA, PhD Courses

Not all courses are offered every year. Please consult the department for course offerings.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMP2000Y0</td>
<td>Collaborative Specialization in Ancient and Medieval Philosophy (CSAMP) Proseminar</td>
</tr>
<tr>
<td>CLA2000Y</td>
<td>Graduate Research Paper</td>
</tr>
<tr>
<td>CLA3020H</td>
<td>Research Methods in Ancient History</td>
</tr>
<tr>
<td>CLA3020Y</td>
<td>Ancient History Methods Course (Credit/No Credit)</td>
</tr>
<tr>
<td>CLA4000Y0</td>
<td>Major Field</td>
</tr>
<tr>
<td>GRK1000H</td>
<td>Advanced Studies in Greek Language (Credit/No Credit)</td>
</tr>
<tr>
<td>GRK1800H</td>
<td>Special Topics in Greek Literature</td>
</tr>
<tr>
<td>GRK1801H</td>
<td>Special Topics in Greek History</td>
</tr>
<tr>
<td>GRK1810H</td>
<td>Classical Greek Literature and Culture</td>
</tr>
<tr>
<td>GRK1811H</td>
<td>Hellenistic Literature and Culture</td>
</tr>
<tr>
<td>GRK2505Y0</td>
<td>Greek Sight Exam</td>
</tr>
<tr>
<td>JCO5121H</td>
<td>Classics and Theory</td>
</tr>
<tr>
<td>LAT1000H</td>
<td>Advanced Studies in Latin Language (Credit/No Credit)</td>
</tr>
<tr>
<td>LAT1800H</td>
<td>Special Topics in Latin Literature</td>
</tr>
</tbody>
</table>
Research Seminars

The following courses are open to students in other departments with the permission of the instructor and the Department of Classics. See the departmental brochure or website for language requirements. Not all courses are offered every year. See the departmental brochure or website for course offerings in the current year.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CLA5000H</td>
<td>Early Greek Epic</td>
</tr>
<tr>
<td>CLA5004H</td>
<td>Studies in Greek Poetry</td>
</tr>
<tr>
<td>CLA5007H</td>
<td>Criticism of Latin Poetry</td>
</tr>
<tr>
<td>CLA5009H</td>
<td>Literature of the Roman Republic</td>
</tr>
<tr>
<td>CLA5010H</td>
<td>Virgil</td>
</tr>
<tr>
<td>CLA5012H</td>
<td>Studies in Ancient Philosophy I</td>
</tr>
<tr>
<td>CLA5013H</td>
<td>Studies in Ancient Science</td>
</tr>
<tr>
<td>CLA5015H</td>
<td>Latin Poetry of the Empire</td>
</tr>
<tr>
<td>CLA5016H</td>
<td>Topics in Greek and Hellenistic History</td>
</tr>
<tr>
<td>CLA5018H</td>
<td>Topics in Roman History</td>
</tr>
<tr>
<td>CLA5020H</td>
<td>Studies in Ancient Philosophy II</td>
</tr>
<tr>
<td>CLA5021H</td>
<td>Topics in the Study of Greek and Hellenistic Literature and Culture</td>
</tr>
<tr>
<td>CLA5022H</td>
<td>Topics in the Study of Greek and Hellenistic Society</td>
</tr>
<tr>
<td>CLA5023H</td>
<td>Topics in the Study of Roman Literature and Culture</td>
</tr>
<tr>
<td>CLA5024H</td>
<td>Topics in the Study of Roman Society</td>
</tr>
<tr>
<td>CLA5025H</td>
<td>Topics in Greek and Hellenistic History II</td>
</tr>
<tr>
<td>CLA5026H</td>
<td>Topics in Graeco-Roman Historiography I</td>
</tr>
<tr>
<td>CLA5027H</td>
<td>Topics in Graeco-Roman Historiography II</td>
</tr>
<tr>
<td>CLA5028H</td>
<td>Topics in Graeco-Roman History I</td>
</tr>
<tr>
<td>CLA5029H</td>
<td>Topics in Graeco-Roman History II</td>
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Directed Reading

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>JMT1000H</td>
<td>Andronicus of Rhodes and the Early Peripatos</td>
</tr>
<tr>
<td>JMT1002H</td>
<td>Augustine: Soliloquia</td>
</tr>
</tbody>
</table>

\( ^{0} \text{Course that may continue over a program. The course is graded when completed.} \)

Research Seminars

The following courses are open to students in other departments with the permission of the instructor and the Department of Classics. See the departmental brochure or website for language requirements. Not all courses are offered every year. See the departmental brochure or website for course offerings in the current year.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA1300Y</td>
<td>Studies in Classical Antiquity</td>
</tr>
<tr>
<td>CLA1301H</td>
<td>Studies in Classical Antiquity</td>
</tr>
<tr>
<td>CLA1303H</td>
<td>Studies in Classical Antiquity</td>
</tr>
<tr>
<td>CLA1305H</td>
<td>Studies in Classical Latin</td>
</tr>
<tr>
<td>CLA1306H</td>
<td>Studies in Greek Literature I</td>
</tr>
<tr>
<td>CLA1308H</td>
<td>Studies in Latin Literature I</td>
</tr>
<tr>
<td>CLA1309H</td>
<td>Studies in Latin Literature II</td>
</tr>
</tbody>
</table>
Comparative Literature

Comparative Literature: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Comparative Literature

MA and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Book History and Print Culture**
  - Comparative Literature, MA, PhD
- **Diaspora and Transnational Studies**
  - Comparative Literature, MA, PhD
- **Jewish Studies**
  - Comparative Literature, MA, PhD
- **Sexual Diversity Studies**
  - Comparative Literature, MA, PhD
- **South Asian Studies**
  - Comparative Literature, MA, PhD
- **Women and Gender Studies**
  - Comparative Literature, MA, PhD

Overview

The Centre for Comparative Literature offers Master of Arts and Doctor of Philosophy degree programs to students qualified to pursue literary studies involving multiple languages. Students pursue research across languages and national literatures, engaging with theoretical issues that cross traditional disciplines. The centre’s faculty and students work across linguistic boundaries, employing rigorous critical and theoretical lenses to bring into dialogue literature and other cultural forms that are often kept apart by artificially constructed institutional, geographical or ideological boundaries.

At the heart of the research by faculty and students is the close engagement with cultural products in their original languages. Knowledge of languages is a key component in our practice of Comparative Literature. Comparative Literature examines both the contexts of literature and the interaction among literatures. The practice of Comparative Literature at Toronto extends to visual expression as well, with film, photography or graphic novels figuring prominently in the projects of many faculty and students. Graduate programs at the Centre for Comparative Literature foster rigorous reading practices and theoretical reflection.

Interested applicants should consult the Centre's website. It provides updated information about course scheduling and academic profiles of graduate faculty.

Contact and Address

Web: complit.utoronto.ca
Email: baba.nguyen@utoronto.ca
Telephone: (416) 813-4041
Fax: (416) 813-4040

Centre for Comparative Literature
University of Toronto
Isabel Bader Theatre
3rd Floor, 93 Charles Street West
Toronto, Ontario M5S 1K9
Canada

Comparative Literature: Graduate Faculty

Full Members

Bahoo, Haytham - BA, MA, PhD
Bai, Ruoyun - BA, MA, PhD
Cazdyn, Eric - BA, MA, PhD
Comay, Rebecca - BA, MA, PhD
Dowling, Sarah - AB, AM, PhD (Associate Director)
Esonwanne, Uzoma - BA, MA, PhD
Havercroft, Barbara - BA, MA, PhD
Jagoe, Eva-Lynn - BA, MA, PhD
James, Conrad - PhD
Kleber, Pia - BA, MA, PhD
Komaromi, Ann - MA, DPhil (Director)
Kortenaar, Neil ten - BA, MA, PhD
LeBlanc, Julie - BA, PhD
Nyquist, Mary - BA, MA, PhD
Ricco, John - BA, MA, PhD
Ross, Jill - BA, MA, PhD
Rupp, Stephen - BA, MA, MA, MPH, PhD
Sakaki, Atsuko - BA, MA, PhD
Zilcosky, John - BA, MA, MA, PhD

Members Emeriti

Davis, Natalie - BA, MA, PhD
Hutcheon, Linda - BA, MA, PhD
Lahusen, Thomas - MA, PhD
Li, Victor - BA, MA, PhD
Stock, Brian - AB, PhD

Associate Members

Budde, Antje - PhD
Clark, Caryl - BMus, MA, PhD
Esterhammer, Angela - BA, PhD
Goetschel, Willi - PhD
Gunderson, Erik - BA, MA, PhD
Hewitt, Marsh - BA, MA, PhD
Holland, Kate - MA, PhD
Kandiyoti, Dalia - PhD
Keith, Alison - BA, MA, PhD, FRSC
Leonard, Garry - BA, MA, PhD
Matus, Jill - BA, MA, PhD
Meng, Yue - BA, MA, MA, PhD
Motsch, Andreas - PhD
Noyes, John - BA, MA, PhD
Paterson, Janet - BA, MA, PhD
Revermann, Martin - PhD
Robins, William - BA, MPH, PhD
Comparative Literature: Comparative Literature MA

Master of Arts

Program Description

The Comparative Literature MA program is a **course-based program** that accommodates a diverse range of students’ interests. The interdisciplinary and transnational character of the program is reflected in the fact that students may take up to half their courses in other departments of their choice. Students work in languages other than English, and their study may include work in a non-literary discipline. The COL1000H *The Bases for Comparison* provides a basis for study in the program. All incoming students take this seminar course where they consider core theoretical problems of comparison.

All incoming students meet with the Associate Director to discuss their program and to decide on their course of study before beginning classes.

Minimum Admission Requirements

- General Regulations of the School of Graduate Studies, provided that applicants also satisfy the Centre for Comparative Literature’s requirements stated below. In all cases, programs of study must be approved by the Centre.
- An appropriate bachelor’s degree from a recognized university that includes courses in literature and languages with an average grade equivalent to at least a University of Toronto B+ in the applicant’s overall program.
- Demonstrated experience in the study of two literatures (or in comparative literature and one national literature) at the undergraduate level and an ability to work at the graduate level in at least one language other than English.
- All applicants must register as full-time students.

Program Requirements

- Students admitted to the MA must successfully complete at least **4.0 full-course equivalents (FCEs)** including:
  - COL1000H *The Bases for Comparison* (0.5 FCE)
  - at least 1.5 FCEs in COL courses.
- Students may pursue independent research for credit equivalent to 0.5 FCE at the MA level, under the direction of an advisor approved by the Centre for Comparative Literature.
- A plan of study is defined by each MA student through consultation with the Associate Director in light of the student's particular areas of interest and background. This plan of study is subject to the approval of the Centre for Comparative Literature. In addition to the numerous courses in literary theory, methodology, and interdisciplinary topics offered by the Centre, courses may also be selected from departments of language and literature, as well as from other units in the humanities.
- Average of at least B+ in coursework.
- MA students who intend to pursue doctoral studies are strongly advised to make appropriate plans for the acquisition of graduate level competence in a second language and literature other than English. An adequate reading knowledge of this second language must be demonstrated before the MA is received.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Comparative Literature: Comparative Literature PhD

Doctor of Philosophy

Program Description

The Comparative Literature PhD program accommodates a diverse range of students’ interests united by a shared concern for comparative issues. The interdisciplinary and transnational character of the program is reflected in the fact that students may take up to approximately half their courses in other departments of their choice. Students work in at least two languages other than English, and their study may include work in a non-literary discipline.

All incoming students meet with the Associate Director to discuss their program and to decide on their course of study before beginning classes.

The Centre for Comparative Literature only provides supervision in areas which fall within the competency, interests, or availability of its graduate faculty. The Centre supports research which engages creative practice with humanities-based theory and scholarship. Prospective students with an existing creative practice who are interested in using research creation methods are encouraged to contact the Associate Director to discuss the varieties of projects that can be supported. Fields of research creation may include, but are not limited to: architecture, design, creative writing, visual arts, performance, film, video, interdisciplinary arts, media and electronic arts, and new artistic practices (including experiments with the hard and social sciences). The Centre does not provide studio space or production facilities.

PhD Program

Minimum Admission Requirements

- General Regulations of the School of Graduate Studies, provided that applicants also satisfy the Centre for Comparative Literature’s requirements stated below. In all cases, programs of study must be approved by the Centre.
Program Requirements

- A student with an MA in Comparative Literature or its equivalent must take at least 3.0 full-course equivalents (FCEs), of which a minimum of 2.0 FCEs must be COL courses. A student who has an MA in a humanities discipline involving literary studies, especially specific language and literature programs, may be required to take more courses. The actual number of courses required for the PhD will be established at the time of admission through consultation with the Director/Associate Director.
- Students may pursue independent research for credit equivalent to 0.5 FCE at the PhD level, under the direction of an advisor approved by the Centre.
- Students define the scope and approach of their plan of study in consultation with the Associate Director and other faculty. During the first two years of the program, students complete coursework, language requirements, and prepare for the field examination. Coursework must be completed within the first two years of the PhD program. Students constitute a field examination/ supervisory committee and submit a dissertation proposal no later than the end of Year 2 of PhD study. The field examination is taken ideally no later than the end of the first session of Year 3.
- Students must demonstrate an ability to work at the graduate level in two languages and literatures other than English; students who are admitted with an established creative practice may substitute the second non-English language with their creative practice. An adequate reading knowledge of a third language other than English must be demonstrated before taking the field examination. For this last requirement, students who have not already substituted their creative practice for the second non-English language may substitute competency in a non-literary discipline. The Centre reserves the right to determine whether a student has met this requirement. Typically, it will be two graduate half courses in the non-literary discipline. These program requirements must be satisfied before taking the field examination. Certification of graduate-level competence and reading knowledge in languages is given to all students who qualify.
- All PhD students are required to take their field examination by the end of the Spring session of Year 3 of the program. The examination consists of both a field paper and an oral component.
  - The field paper is a 30-page critical essay based on the candidate's reading list that assesses the current state of research and delineates issues and questions pertinent to the thesis. The field paper must be submitted two to three weeks prior to the oral field exam.
  - The oral part of the examination begins with a textual explication by the student, no more than 30 minutes in length, of a specific passage or poem from a work in the primary reading list, assigned for preparation at least three days in advance. For the presentation, only notes or a general outline may be used. The rest of the examination usually consists of questions concerning the student's commentary on the text, the written field paper, the reading list of the original field proposal, and/or other aspects of the field. The oral exam lasts for two hours.
- In the event of failure, the student will be given one more chance to take the exam within one year. Failure after two attempts will lead to the termination of the student's registration.
- When the field examination has been completed successfully, the candidate will prepare and defend a dissertation which must be an original and significant contribution to the existing body of knowledge. This dissertation may include a creative research component.
- Students' progress will be assessed at least once a year by the Centre's Graduate Academic Committee and/or their respective supervisory committees. Although the program has been designed for completion in four years, some students may require a longer period to complete all of the requirements.
- The student must be geographically available, visit the campus regularly, and must register as a full-time student. In addition, a full-time student is not permitted to be absent from the University for an extended period or to participate in a program offered by another university without the explicit written permission of the Centre for Comparative Literature.

Program Length

- 4 years

Time Limit

- 6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- General Regulations of the School of Graduate Studies, provided that applicants also satisfy the Centre for Comparative Literature's requirements stated below. In all cases, programs of study must be approved by the Centre.
• Students coming directly out of an appropriate undergraduate program (direct-entry) who have a demonstrated, exceptional ability to undertake advanced research in two languages and literatures other than English may be considered for direct admission into the PhD program.

• Applicants, including those from the University of Toronto, must arrange for recommendations from two referees; must submit a letter of intent not exceeding 500 words; and must submit a sample of written work, preferably a short essay on a literary topic.

• The Centre welcomes applications from people with an established creative practice who would like to incorporate creative research methodologies into their dissertation work. Applicants who are interested in doing so must have the required expertise and resources to carry out the proposed creative work. Their letter of intent must 1) describe the type of creative research practice they intend to pursue so the Centre can determine whether it can provide appropriate supervisory and committee support. The applicant must 2) direct at least one reference letter writer to testify to the applicant’s competency in the relevant creative practice, and the applicant must 3) articulate how the creative practice may be employed as a method for elucidating critical questions animating the dissertation project.

Program Requirements

• A student with a bachelor’s degree who is admitted directly to the PhD program must take at least 6.0 full-course equivalents (FCEs), of which 3.0 must be COL courses. The actual number of courses required for the PhD will be established at the time of admission through consultation with the Director/Associate Director.

• Students may pursue independent research for credit equivalent to 0.5 FCE at the PhD level, under the direction of an advisor approved by the Centre.

• Students define the scope and approach of their plan of study in consultation with the Associate Director and other faculty. During the first two years of the program, students complete coursework, language requirements, and prepare for the field examination. Coursework must be completed within the first two years of the PhD program. Students constitute a field examination/ supervisory committee and submit a dissertation proposal no later than the end of Year 2 of PhD study. The field examination is taken ideally no later than the end of the first session of Year 3.

• Students must demonstrate an ability to work at the graduate level in two languages and literatures other than English; students who are admitted with an established creative practice may substitute the second non-English language with their creative practice. An adequate reading knowledge of a third language other than English must be demonstrated before taking the field examination. For this last requirement, students who have not already substituted their creative practice for the second non-English language may substitute competency in a non-literary discipline. The Centre reserves the right to determine whether a student has met this requirement. Typically, it will be two graduate half courses in the non-literary discipline. These program requirements must be satisfied before taking the field examination. Certification of graduate-level competence and reading knowledge in languages is given to all students who qualify.

• All PhD students are required to take their field examination by the end of the Spring session of Year 3 of the program.

The examination consists of both a field paper and an oral component.

• The field paper is a 30-page critical essay based on the candidate’s reading list that assesses the current state of research and delineates issues and questions pertinent to the thesis. The field paper must be submitted two to three weeks prior to the oral field exam.

• The oral part of the examination begins with a textual explication by the student, no more than 30 minutes in length, of a specific passage or poem from a work in the primary reading list, assigned for preparation at least three days in advance. For the presentation, only notes or a general outline may be used. The rest of the examination usually consists of questions concerning the student's commentary on the text, the written field paper, the reading list of the original field proposal, and/or other aspects of the field. The oral exam lasts for two hours.

• In the event of failure, the student will be given one more chance to take the exam within one year. Failure after two attempts will lead to the termination of the student's registration.

• When the field examination has been completed successfully, the candidate will prepare and defend a dissertation which must be an original and significant contribution to the existing body of knowledge. This dissertation may include a creative research component.

• Students’ progress will be assessed at least once a year by the Centre’s Graduate Academic Committee and/or their respective supervisory committees.

• The student must be geographically available, visit the campus regularly, and must register as a full-time student. In addition, a full-time student is not permitted to be absent from the University for an extended period or to participate in a program offered by another university without the explicit written permission of the Centre for Comparative Literature.

Program Length

5 years

Time Limit

7 years

Comparative Literature: Comparative Literature MA, PhD Courses

Students should consult the Comparative Literature website for the list of currently offered courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COL100H</td>
<td>The Bases for Comparison</td>
</tr>
<tr>
<td>COL190H</td>
<td>Reading and Research for the MA</td>
</tr>
<tr>
<td>COL210H</td>
<td>Special Topics Course</td>
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<tr>
<td>COL400Y</td>
<td>Practicum on Research and Bibliography in Comparative Literature</td>
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<td>COL5016H</td>
<td>Dramatic Text and Theoretical Communication: Bertolt Brecht, Robert Lepage,</td>
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<td>and Robert Wilson</td>
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<td>COL5018H</td>
<td>Gender and Agency</td>
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<td>COL5027H</td>
<td>Memory, Trauma, and History</td>
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<tr>
<td>COL5032H</td>
<td>Feminist Approaches to Medieval Literature</td>
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<tr>
<td>COL5033H</td>
<td>Visual Portraits in Contemporary Autobiographical Narratives</td>
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<tr>
<td>COL5047H</td>
<td>The Two Avant-Gardes</td>
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<tr>
<td>COL5072H</td>
<td>Affinities: Readings of Realism and Radicalism</td>
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<tr>
<td>COL5081H</td>
<td>Benjamin’s Arcades Project</td>
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<tr>
<td>COL5086H</td>
<td>Literature, Culture, and Contact in Medieval Iberia</td>
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<td>COL5094H</td>
<td>Forms of Critical Writing</td>
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<td>COL5096H</td>
<td>The Problem of Translation: Historical, Theoretical, and Pragmatic Perspectives</td>
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<tr>
<td>COL5101H</td>
<td>Diasporic Cities: Itinerant Narratives of Metropoles by Travellers and Expatriates</td>
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<tr>
<td>COL5109H</td>
<td>Jean-Luc Nancy: Retreating the Aesthetic</td>
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<tr>
<td>COL5110H</td>
<td>Post-Capitalist Fantasy: Culture, Politics, Subjectivity</td>
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<tr>
<td>COL5111H</td>
<td>Revenge, Resistance, Race, and Law</td>
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<tr>
<td>COL5117H</td>
<td>Freud and Psychoanalysis</td>
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<tr>
<td>COL5118H</td>
<td>Sovereignty: Hobbes and his 21st-Century Successors</td>
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<td>COL5122H</td>
<td>Text and Digital Media</td>
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<tr>
<td>COL5124H</td>
<td>Public Reading: Literature and the Formation of Critical Publics</td>
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<td>COL5125H</td>
<td>Literature, Trauma, Modernity</td>
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<td>COL5126H</td>
<td>Sports Narrated: Literary and Interdisciplinary Explorations</td>
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<td>COL5127H</td>
<td>Queer Ethics and Aesthetics of Existence</td>
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<tr>
<td>COL5128H</td>
<td>Tragedy: Instantiations of a Dramatic Form in Theatre, Philosophy, Opera, and</td>
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<td>Popular Cinema</td>
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<tr>
<td>COL5129H</td>
<td>New Addictions for the Anthropocene</td>
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<td>COL5130H</td>
<td>Comparison and &quot;the Human&quot;</td>
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<tr>
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<td>Non Disclosure Acts</td>
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<td>One Philosopher and One Artist: Towards a New Practice of Comparison</td>
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<td>Climate Genres</td>
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<td>COL5136H</td>
<td>Aesthetics of Space, Place, and Power</td>
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<td>COL5137H</td>
<td>Paraliterary Practices and Dialogic Creativity</td>
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<td>COL5140H</td>
<td>Beckett and Philosophy</td>
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<td>COL5141H</td>
<td>Beyond the Anthropocene: New Directions in Environmental Humanities</td>
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<td>COL5143H</td>
<td>Dramaturgies of the Dialect Part I: Hegel: The End of Art and the Endgame of</td>
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<td>Poetics of Personhood</td>
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<td>COL5146H</td>
<td>Written in Blood: Caribbean Readings in Conflict and Healing</td>
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<td>COL5147H</td>
<td>Books at Risk</td>
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<td>COL5148H</td>
<td>Post-Conflict Literatures: Europe, Africa, and the Americas</td>
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<tr>
<td>COL5149H</td>
<td>The Art of Combat: Violence, Culture, and Competition</td>
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<tr>
<td>COL5150H</td>
<td>The Palliative: Art, Politics, Ecology, Medicine</td>
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<td>COL5151H</td>
<td>The Theatre of Science</td>
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<td>JCD5135H</td>
<td>Race, Politics, and Jewishness</td>
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<td>JCD5136H</td>
<td>Migration and Memory: Narratives of Jewish Exile and Displacement</td>
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<td>JCO5121H</td>
<td>Classics and Theory Seminar</td>
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<td>JFC5025H</td>
<td>Feminism and Postmodernism: Theory and Practice</td>
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<td>JFC5105H</td>
<td>Collections of Knowledge: Encyclopedism and Travel Literature in Early Modern</td>
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<td>Europe (1500–1800)</td>
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<td>JFC5129H</td>
<td>Performative Autobiographical Acts: Painted and Photographic Representations</td>
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<td>of Self in Personal and Political Testimonials</td>
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<tr>
<td>JFC5136H</td>
<td>Allegory and Allegorism in Literature and Fine Arts</td>
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<tr>
<td>JGC1855H</td>
<td>Critical Theory in Context: The French-German Connection</td>
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<td>JHL1282H</td>
<td>Comparative Totalitarian Culture</td>
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<tr>
<td>JHL1680H</td>
<td>Revolutionary Women’s Cultures in East Asia, Early to Mid 20th Century</td>
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<td>JLE5225H</td>
<td>The Passage from History to Fiction</td>
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<td>JLV5134H</td>
<td>Theories of the Novel</td>
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<tr>
<td>JOS5019H</td>
<td>Cervantes and Renaissance Humanism</td>
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<td>JOS5029H</td>
<td>Reading Cervantes</td>
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</tbody>
</table>
Computer Science

Computer Science: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Applied Computing

MScAC

- Concentrations:
  - Applied Mathematics;
  - Artificial Intelligence;
  - Artificial Intelligence in Healthcare;
  - Data Science;
  - Data Science for Biology;
  - Quantum Computing

Computer Science

MSc and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Genome Biology and Bioinformatics**
  - Computer Science, PhD
- **Knowledge Media Design**
  - Computer Science, MSc, PhD
- **Neuroscience**
  - Computer Science, MSc, PhD
- **Robotics**
  - Computer Science, MSc, PhD

Overview

Graduate faculty in the Department of Computer Science are interested in a wide range of subjects related to computing, including programming languages and methodology, software engineering, operating systems, compilers, distributed computation, networks, numerical analysis and scientific computing, data structures, algorithm design and analysis, computational complexity, cryptography, combinatorics, graph theory, artificial intelligence, neural networks, knowledge representation, computational linguistics and natural language processing, computer vision, robotics, database systems, graphics, animation, interactive computing, and human-computer interaction.

For further details, consult the graduate student handbook prepared by the department and available online.

Contact and Address

MSc and PhD Programs

Web: cs.toronto.edu
Email: gradapplications@cs.toronto.edu
Telephone: (416) 978-8762

Department of Computer Science Graduate Office
University of Toronto
Bahen Centre for Information Technology
40 St. George Street
Toronto, Ontario M5S 2E4
Canada

MScAC Program

Web: mscac.utoronto.ca
Email: admissions@mscac.utoronto.ca
Telephone: (416) 946-8440

University of Toronto
700 University Avenue, 9th Floor
Toronto, ON M5G 1Z5
Canada

Computer Science: Graduate Faculty

Full Members

Abdelrahman, Tarek - BSc, MSc, PhD
Ahmed, Ishtiaque - PhD
Amza, Cristiana - BS, MS, PhD
Aspuru-Guzik, Alan - PhD
Ba, Jimmy - PhD, PhD, PhD
Bader, Gary - BSc, PhD
Balakrishnan, Ravin - BS, SM, PhD
Barfoot, Tim - BASc, PhD
Becker, Christoph - BSc, MSc, DSc
Bonner, Anthony - BSc, MSc, PhD
Borodin, Allan - BS, SM, PhD, FAAAS
Brudno, Michael - AB, SM, PhD
Burgner-Kahrs, Jessica - PhD
Chechik, Marsha - BS, SM, PhD
Chevalier, Fanny - PhD
Christara, Christina - BS, SM, PhD
Dayan, Niv - PhD
de Lara, Eyal - BS, MS, PhD *(Chair and Graduate Chair)*
Demke Brown, Angela - BS, SM, PhD
Dickinson, Sven Josef - BASc, MS, PhD
Duvenaud, David - PhD
Easterbrook, Steve - BSc, PhD
Ellen, Faith - BM, MMath, PhD *(Associate Chair, Graduate Studies)*
Enright Jerger, Natalie - BSc, MSc, PhD
Erdogdu, Murat Anıl - PhD
Fargnolwe, Thomas - BMSc, MSc, PhD
Farzan, Azadeh - BS, PhD
Fidler, Sanja - PhD
Fleet, David James - BS, MS, PhD
Fox, Mark - BSc, PhD
Ganjali, Yashar - BSc, MSc, PhD
Gilitschenski, Igor - PhD
Goel, Ashvin - BTech, MS, PhD
Goldenberg, Anna - PhD, PhD
Gopalkrishnan, Rahul - PhD
Grinspun, Eitan - PhD
Grosse, Roger - PhD
Grossman, Tovi - PhD
Gruninger, Michael - BSc, MS, PhD
Guha, Shion - PhD
Gupta, Arvind - BSc, PhD
Hadzilacos, Vassos - BSc, BSE, PhD
Hirst, Graeme - BA, BSc, MSc, PhD
Jacobsen, Hans-Arno - MCS, PhD
Jacobson, Alec - PhD
Kahrs, Lueder Alexander - MSc, PhD
Kopparty, Swastik - BSc, MS, PhD
Koudas, Nick - BS, MS, PhD
Kutulakos, Kyros - BS, BSc, MS, PhD
Levin, David - PhD
Li, Baochun - BEng, MSc, DPhil
Lie, David - BSc, MS, PhD
Linell, David - PhD
Lyons, Kelly - BSc, MSc, PhD
Maddison, Christopher - PhD
Marbach, Peter Josef - Diploma, MS, PhD
Mariakakis, Alex - PhD
McIlraith, Sheila - BSc, MSc, PhD
Mehri Dehnavi, Maryam - PhD
Molloy, Michael - BMath, MMath, PhD
Moses, Alan - BA, PhD
Moshovos, Andreas - BSc, MS, PhD
Nikolov, Aleksandar - PhD
Nobre, Carolina - PhD
Penn, Gerald - BS, MSc, PhD
Pitassi, Toniann - BS, SM, PhD
Rossman, Benjamin - BA, MA, PhD
Roth, Frederick - PhD
Roy, Daniel - BS, MEng, PhD
Saraf, Shubhangi - BS, MS, PhD
Shroeder, Bianca - MSc, PhD
Si, Xujie - PhD
Singh, Karan - BS, MS, PhD
Soden, Robert - PhD
Stevenson, Suzanne Ava - MS, PhD
Strug, Lisa - BS, BA, SM, PhD
Stumm, Michael - MS, PhD
Sun, Yu - BS, MS, MS, PhD
Tang, Tony - PhD
Toueg, Sam - BS, MA, MSEE, PhD
Truong, Khai Nhat - BSc, PhD
Urtasun, Raquel - PhD
Veneris, Andreas - BSc, MSc, PhD
Vijaykumar, Nandita - BE, ME, PhD
Wang, Bo - BS, MS, PhD
Wiebe, Nathan - PhD
Wigdor, Daniel - PhD
Williams, Joseph - PhD
Yu, Eric - BSc, MMath, PhD
Zemel, Richard - BA, SM, PhD

Members Emeriti
Cornell, Derek - BSc, MA, PhD
Enright, Wayne - BSc, MSc, PhD
Fiume, Eugene - BM, MSc, PhD
Hehner, Eric C.R. - BSc, MSc, PhD
Hinton, Geoffrey E. - BA, PhD
Jackson, Kenneth - BSc, MSc, PhD
Jepson, Allan - BSc, PhD
Levesque, Hector - BSc, MSc, PhD
Miller, Renee - BS, BM, MS, PhD
Mylopoulos, John - BE, BSc, MSc, PhD
Neal, Radford - BSc, MSc, PhD
Rackoff, Charles - SB, SM, PhD

Associate Members
Azhari, Fae - BEng, PhD
Badescu, Andrei - BSc, MSc, DPhil
Campbell, Jennifer - BSc, MMath
Cohen, Eldan - BSc, PhD
Craig, Michelle - BSc, MSc
Engels, Steve - BASc, MMath
Ghassemi, Marzyeh - PhD
Gries, Paul - BA, MSc
Gronsbell, Jessica - BA, PhD
Horton, Diane - BS, MSc
Huang, Huaxiong - BSc, PhD
Jeffrey, Mark Christopher - PhD, PhD
Kreinin, Alexander - MSc, PhD
Lee, Annie - PhD
Li, Ben - BS, MS, PhD
Liu, David - MSc
McIntosh, Chris - PhD
Pitt, Francois - BSc, MSc, PhD
Reid, Karen - BS, MB, MS
Reid, Nancy - BM, MSc, PhD, FRSC
Smith, Jacqueline - MSc
Tsotsos, John - BASc, MSc, PhD, CRC
Wang, Linbo - BS, PhD
Waslander, Steven - BSc, MS, PhD
Wong, Ting-Kam Leonard - BSc, MPH, PhD

Computer Science: Applied Computing

MScAC

Master of Science in Applied Computing

Program Description

The Master of Science in Applied Computing (MScAC) program is offered as

- a general Computer Science program (no concentration) or as
- a concentration in:
  - Applied Mathematics, offered jointly by the Department of Computer Science and the Department of Mathematics;
  - Artificial Intelligence, offered jointly by the Department of Computer Science, the Department of Statistical Sciences, and the Faculty of Applied Science and Engineering;
  - Artificial Intelligence in Healthcare, offered jointly by the Department of Computer Science and the Temerty Faculty of Medicine;
  - Data Science, offered jointly by the Department of Computer Science and the Department of Statistical Sciences;
  - Data Science for Biology, offered jointly by the Department of Computer Science and the Department of Cell and Systems Biology;
  - Quantum Computing, offered jointly by the Department of Computer Science and the Department of Physics.

There is no thesis requirement.
Computer Science: Applied Computing  
MScAC General Program  
(No Concentration)

MScAC General Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science’s additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university in computer science or a related discipline.
- A standing equivalent to at least B+ in the final year of undergraduate studies.
- Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the following minimum scores:
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.
  - IELTS: an overall score of 7.0, with at least 6.5 for each component.
- If students complete a portion of their degree in English, or part of their degree at another university where English is the language of instruction, applicants must still provide proof of English-language proficiency.
- Three letters of support from faculty and/or employers.
- Applicants will be asked to respond to program-specific questions addressing their interest in the concentration and objectives for the program.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) including:
  - 1.0 FCE in required courses: technical communications (CSC2701H) and technical entrepreneurship (CSC2702H).
  - An eight-month industrial internship, CSC2703H (3.5 FCEs). The internship is coordinated by the department and evaluated on a pass/fail basis.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time

Computer Science: Applied Computing  
MScAC (Applied Mathematics Concentration)

MScAC Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in a related area such as applied mathematics, computational mathematics, computer science, mathematics, physics, statistics, or any discipline where there is a significant mathematical component. The completed bachelor’s degree must include coursework in advanced and multivariate calculus (preferably analysis), linear algebra, and probability. In addition, there should be some depth in at least two of the following six areas:
  - analysis (for example, measure and integration, harmonic analysis, functional analysis);
  - discrete math (for example, algebra, combinatorics, graph theory);
  - foundations (for example, complexity theory, set theory, logic, model theory);
  - geometry and topology;
  - numerical analysis; and
  - ordinary and partial differential equations.
- There should also be a demonstrated capacity at programming and algorithms.
- A standing equivalent to at least B+ in the final year of undergraduate studies.
- Applicants must satisfy the admissions committee of their ability to be successful in graduate courses in computer science and mathematics, and in an industrial internship in applied mathematics. Applicants should be able to demonstrate a potential to conduct and communicate applied research at the intersection of computer science, mathematics, and a domain area. Applicants may be asked to do a technical interview as part of the application process.
- Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the following minimum scores:
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.
  - IELTS: an overall score of 7.0, with at least 6.5 for each component.
- If students complete a portion of their degree in English, or part of their degree at another university where English is the language of instruction, applicants must still provide proof of English-language proficiency.
- Three letters of support from faculty and/or employers, with preference for at least one such letter from a faculty member in Mathematics or Applied Mathematics.
- Applicants will be asked to respond to program-specific questions addressing their interest in the concentration and objectives for the program.
• Applicants must indicate a preference for the concentration in Applied Mathematics in their application. Admission is competitive, and students who are admitted to the MScAC program are not automatically admitted to this concentration upon request.

Program Requirements

• Coursework. Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  o 1.0 FCE chosen from the MAT1000-level courses or higher.
  o 1.0 FCE chosen from the Computer Science (CSC course designator) graduate course listings.
  o 1.0 FCE in required courses:
    ▪ CSC2701H Communication for Computer Scientists (0.5 FCE) and
    ▪ CSC2702H Technical Entrepreneurship (0.5 FCE).
  o Course selections should be made in consultation with the Program Director.

• An eight-month industrial internship, CSC2703H (3.5 FCEs). The internship is coordinated by the department and evaluated on a pass/fail basis.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time

Computer Science: Applied Computing

MScAC (Artificial Intelligence Concentration)

MScAC Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science's additional admission requirements stated below.

• An appropriate bachelor's degree from a recognized university in a related area such as physics, computer science, mathematics, statistics, engineering, or any discipline where there is a significant quantitative component. The completed bachelor's degree must include significant exposure to computer science or statistics or engineering including coursework in advanced and multivariate calculus (preferably analysis), linear algebra, probability and statistics, programming languages, and general computational methods.

• A standing equivalent to at least B+ in the final year of undergraduate studies.

• Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the following minimum scores:
  o Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.
  o IELTS: an overall score of 7.0, with at least 6.5 for each component.

• If students complete a portion of their degree in English, or part of their degree at another university where English is the language of instruction, applicants must still provide proof of English-language proficiency.

• Three letters of reference from faculty and/or employers, with preference for at least one such letter from a faculty member in Artificial Intelligence (AI).

• Applicants will be asked to respond to program-specific questions addressing their interest in the concentration and objectives for the program.

• Applicants must indicate a preference for the concentration in AI in their application. Admission to the AI concentration is competitive. Students who are admitted to the MScAC program are not automatically admitted to the AI concentration upon request.

Program Requirements

• Coursework. Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  o 1.5 FCEs of coursework in the area of AI:
    ▪ 1.0 FCE selected from the core list of AI courses (see list below) from at least two different research areas
    ▪ 0.5 FCE selected from additional AI courses outside the core list
  o 1.0 FCE in required courses:
    ▪ CSC2701H Communication for Computer Scientists (0.5 FCE)
    ▪ CSC2702H Technical Entrepreneurship (0.5 FCE)
  o Remaining 0.5 FCE of coursework will be chosen from outside of AI:
    ▪ Course selections should be made in consultation with and approved by the Program Director.
    ▪ Appropriate substitutions may be possible with approval.
    ▪ A maximum of 1.0 FCE may be chosen from outside the Computer Science (CSC course designator) graduate course listing.

• An eight-month industrial internship, CSC2703H (3.5 FCEs). The internship is coordinated by the department and evaluated on a pass/fail basis.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time
Artificial Intelligence Core Courses

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<tr>
<td>AER1513H</td>
<td>State Estimation for Aerospace Vehicles</td>
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<td>AER1517H</td>
<td>Control for Robotics</td>
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<td>CSC2501H</td>
<td>Computational Linguistics</td>
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<td>CSC2502H</td>
<td>Knowledge Representation and Reasoning</td>
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<td>CSC2503H</td>
<td>Foundations of Computer Vision</td>
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<td>CSC2511H</td>
<td>Natural Language Computing</td>
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<td>CSC2515H*</td>
<td>Introduction to Machine Learning (exclusion:</td>
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<td>ECE1513H)</td>
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<tr>
<td>CSC2516H**</td>
<td>Neural Networks and Deep Learning (exclusion:</td>
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<td>CSC2533H</td>
<td>Foundations of Knowledge Representation</td>
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<td>CSC2630H</td>
<td>Introduction to Mobile Robotics</td>
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<td>Digital Image Processing and Applications</td>
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<td>Introduction to Deep Learning (exclusion:</td>
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<td>CSC2516H)</td>
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</tbody>
</table>

*different courses with the same title, offered by different Faculties.
**different courses with similar titles, offered by different Faculties.

Computer Science: Applied Computing
MScAC (Artificial Intelligence in Healthcare Concentration)

MScAC Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university in an area such as life sciences, biochemistry, medical sciences, computer science, biotechnology, biostatistics, engineering, or a related discipline.
- A standing equivalent to at least B+ in the final year of undergraduate studies.
- Applicants should have sufficient academic undergraduate background in programming (ability to program and basic software engineering skills), calculus, statistics, a first- or second-year undergraduate course in statistics, linear algebra, and an undergraduate course that introduces concepts of healthcare and/or molecular biology. If courses were not taken prior to application to the program, please note that equivalent experience will be considered.
- Applicants must satisfy the admissions committee of their ability to be successful in graduate courses in artificial intelligence (AI) and an industrial internship in healthcare. Applicants may be asked to do a technical interview as part of the application process.
- The program will consider admitting candidates without an undergraduate degree in computer science, statistics, or a life sciences field, but who show a demonstrated aptitude to be an excellent candidate for this concentration. Applicants should be able to demonstrate a potential to conduct and communicate applied research at the intersection of computer science and a healthcare domain area. Background academic preparation to be successful in graduate-level computer science and medical sciences courses typically, though not always, includes intermediate or advanced undergraduate courses in the following topics:
  - Programming, software engineering, algorithms.
  - Statistical theory and/or mathematical statistics and linear algebra.
- Students who are otherwise qualified but lack the appropriate background may be granted conditional admission, pending successful completion of additional background material as judged by the admissions committee.
- Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the following minimum scores:
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.
  - IELTS: a minimum overall score of 7.0, with at least 6.5 for each component.
- If students complete a portion of their degree in English, or part of their degree at another university where English is the language of instruction, applicants must still provide proof of English-language proficiency.
- Three letters of reference from faculty and/or employers, with preference for at least one such letter from a faculty member in computer science, biology, or data science.
- Applicants will be asked to respond to program-specific questions addressing their interest in the concentration and objectives for the program.
- Applicants must indicate a preference for at least one such letter from a faculty member in computer science, biology, or data science.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE in approved data science courses
  - 0.5 FCE in approved AI courses
  - 0.5 FCE in approved visualization/systems/software engineering courses
  - 0.5 FCE in approved Laboratory Medicine and Pathobiology (LMP) or Master of Health Informatics (MHI) courses
  - 1.0 FCE in required courses:
    - CSC2701H Communication for Computer Scientists (0.5 FCE)
    - CSC2702H Technical Entrepreneurship (0.5 FCE)
• A maximum of 1.0 FCE may be taken from outside the Department of Computer Science.
• Students who lack the academic background in AI and/or statistics may be required to take additional courses in these areas.
• An eight-month industrial internship, CSC2703H (3.5 FCEs). The internship is coordinated by the department and evaluated on a pass/fail basis.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time

Approved Data Science Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA1007H</td>
<td>Statistics for Life and Social Scientists</td>
</tr>
<tr>
<td>STA1008H</td>
<td>Applications of Statistics</td>
</tr>
<tr>
<td>STA2016H</td>
<td>Theory and Methods for Complex Spatial Data (prerequisite: STA302H1)</td>
</tr>
<tr>
<td>STA2053H</td>
<td>Special Topics in Applied Statistics (prerequisite: graduate-level statistical knowledge with permission of the instructor)</td>
</tr>
<tr>
<td>STA2453H</td>
<td>Data Science Methods, Collaborations, and Communication</td>
</tr>
</tbody>
</table>

Approved Artificial Intelligence Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC2431H</td>
<td>Topics in Computational Biology and Medicine</td>
</tr>
<tr>
<td>CSC2506H</td>
<td>Probabilistic Learning and Reasoning</td>
</tr>
<tr>
<td>CSC2516H</td>
<td>Neural Networks and Deep Learning (exclusion: MIE1517H)</td>
</tr>
<tr>
<td>CSC2518H</td>
<td>Spoken Language Processing</td>
</tr>
<tr>
<td>CSC2523H</td>
<td>Object Modelling and Recognition</td>
</tr>
<tr>
<td>CSC2528H</td>
<td>Advanced Computational Linguistics</td>
</tr>
<tr>
<td>CSC2532H</td>
<td>Statistical Learning Theory (prerequisite: CSC2515H)</td>
</tr>
<tr>
<td>CSC2539H</td>
<td>Topics in Computer Vision</td>
</tr>
<tr>
<td>CSC2541H</td>
<td>Topics in Machine Learning</td>
</tr>
<tr>
<td>CSC2542H</td>
<td>Topics in Knowledge Representation and Reasoning</td>
</tr>
<tr>
<td>CSC2547H</td>
<td>Current Algorithms and Techniques in Machine Learning</td>
</tr>
</tbody>
</table>

CSC2548H    | Machine Learning in Computer Vision |
CSC2556H    | Algorithms for Collective Decision Making |
CSC2559H    | Trustworthy Machine Learning |

Approved Visualization/Systems/Engineering Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC2231H</td>
<td>Special Topics in Computer Systems</td>
</tr>
<tr>
<td>CSC2233H</td>
<td>Topics in Storage Systems</td>
</tr>
<tr>
<td>CSC2508H</td>
<td>Advanced Data Systems</td>
</tr>
<tr>
<td>CSC2526H</td>
<td>HCI: Topics in Ubiquitous Computing</td>
</tr>
<tr>
<td>CSC2537H/STA2555H</td>
<td>Information Visualization</td>
</tr>
<tr>
<td>CSC2558H</td>
<td>Topics in Multidisciplinary HCI</td>
</tr>
</tbody>
</table>

Approved LMP and MHI Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP1210H</td>
<td>Basic Principles of Machine Learning in Biomedical Research</td>
</tr>
<tr>
<td>LMP2200H</td>
<td>Basic Principles in Human Pathobiology and Pathophysiology</td>
</tr>
<tr>
<td>MH11002H</td>
<td>Complexity of Clinical Care</td>
</tr>
<tr>
<td>MH12001H</td>
<td>Fundamentals of Health Informatics</td>
</tr>
<tr>
<td>MH12004H</td>
<td>Human Factors and Systems Design in Health Care</td>
</tr>
<tr>
<td>MH12006H</td>
<td>Advanced Topics in Health Informatics (Strategic Frameworks for Solution Architecture)</td>
</tr>
<tr>
<td>MH12009H</td>
<td>Evaluation and Performance Measurements in Health Care</td>
</tr>
<tr>
<td>MH12017H</td>
<td>Systems Analysis and Process Innovation in Healthcare</td>
</tr>
<tr>
<td>MH12021H</td>
<td>Canada’s Health System and Digital Health Policy</td>
</tr>
<tr>
<td>MH13000H</td>
<td>Independent Reading for Health Informatics</td>
</tr>
</tbody>
</table>
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university in a related area such as statistics, computer science, mathematics, or any discipline where there is a significant quantitative component.
- A standing equivalent to at least B+ in the final year of undergraduate studies.
- Applicants must satisfy the admissions committee of their ability to be successful in graduate courses in computer science, statistics, and an industrial internship in data science. Applicants may be asked to do a technical interview as part of the application process.
- The program will consider admitting candidates without an undergraduate degree in computer science, statistics, or a related field, but who show a demonstrated aptitude to be an excellent data scientist. Applicants should be able to demonstrate a potential to conduct and communicate applied research at the intersection of computer science, statistics, and a domain area. Background academic preparation to be successful in graduate-level computer science and statistics courses typically, though not always, includes intermediate or advanced undergraduate courses in the following topics:
  - Statistical Theory/Mathematical Statistics, Probability Theory, or Regression Analysis.
- Students who are otherwise qualified but lack the appropriate background may be granted conditional admission, pending successful completion of additional background material as judged by the admissions committee.
- Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the following minimum scores:
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.
  - IELTS: an overall score of 7.0, with at least 6.5 for each component.
- If students complete a portion of their degree in English, or part of their degree at another university where English is the language of instruction, applicants must still provide proof of English-language proficiency.
- Three letters of support from faculty and/or employers.
- Applicants will be asked to respond to program-specific questions addressing their interest in the concentration and objectives for the program.
- Applicants must indicate a preference for the concentration in Data Science in their application. Admission is competitive, and students who are admitted to the MScAC program are not automatically admitted to this concentration upon request.

Program Requirements

- Coursework. Students must successfully complete a total of 3.0 full-course equivalents (FCEs) including:
  - 1.0 FCE chosen from the STA2000-level courses or higher. This may include a maximum of 0.5 FCE chosen from the STA4500-level of six-week modular courses (0.25 FCE each).
  - 1.0 FCE chosen from the Computer Science (CSC course designator) graduate course listings.
  - 1.0 FCE in required courses:
    - CSC2701H Communication for Computer Scientists (0.5 FCE)
    - CSC2702H Technical Entrepreneurship (0.5 FCE).
  - Course selections should be made in consultation with the Program Director.
- An eight-month industrial internship, CSC2703H (3.5 FCEs). The internship is coordinated by the department and evaluated on a pass/fail basis.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time
appropriate background may be granted conditional admission, pending successful completion of additional background material as judged by the admissions committee.

- Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the following minimum scores:
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.
  - IELTS: an overall score of 7.0, with at least 6.5 for each component.
- If students complete a portion of their degree in English, or part of their degree at another university where English is the language of instruction, applicants must still provide proof of English-language proficiency.
- Three letters of support from faculty and/or employers, with preference for at least one such letter from a faculty member in biology or data science.
- Applicants will be asked to respond to program-specific questions addressing their interest in the concentration and objectives for the program.
- Applicants must indicate a preference for the concentration in Data Science for Biology in their application. Admission is competitive, and students who are admitted to the MScAC program are not automatically admitted to this concentration upon request.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) including:
  - 1.0 FCE chosen from Cell and Systems Biology (CSB), Ecology and Evolutionary Biology (EEB), Molecular Genetics (MMG), or Statistical Sciences (STA) 1000-level or higher courses from the approved list below. A maximum of 0.5 FCE may be selected from EEB, MMG, and STA courses.
  - 1.0 FCE chosen from the Computer Science (CSC course designator) graduate course listings from the approved list below and in two different research areas.
  - 1.0 FCE in required courses:
    - CSC2701H *Communication for Computer Scientists* (0.5 FCE) and
    - CSC2702H *Technical Entrepreneurship* (0.5 FCE).
- Course selections should be made in consultation with the Program Director. Appropriate substitutions may be possible with approval.
- An eight-month industrial internship, CSC2703H (3.5 FCEs). The internship is coordinated by the department and evaluated on a pass/fail basis.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time

### Approved CSB, EEB, MMG, and STA Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSB1018H</td>
<td>Advanced Microscopy and Imaging</td>
</tr>
<tr>
<td>CSB1020H</td>
<td>Topics in Cell and Systems Biology</td>
</tr>
<tr>
<td>CSB1021H</td>
<td>Topics in Cell and Systems Biology</td>
</tr>
<tr>
<td>CSB1025H</td>
<td>Methods in Genomics and Proteomics</td>
</tr>
<tr>
<td>CSB1472H</td>
<td>Computational Genomics and Bioinformatics</td>
</tr>
<tr>
<td>EEB1460H</td>
<td>Molecular Evolution</td>
</tr>
<tr>
<td>MMG1344H</td>
<td>Foundational Computational Biology I (exclusion: MMG1004H)</td>
</tr>
<tr>
<td>MMG1345H</td>
<td>Foundational Computational Biology II (exclusion: MMG1004H)</td>
</tr>
<tr>
<td>STA1008H</td>
<td>Applications of Statistics</td>
</tr>
<tr>
<td>STA2005H</td>
<td>Applied Multivariate Analysis</td>
</tr>
<tr>
<td>STA2016H</td>
<td>Theory and Methods for Complex Spatial Data (prerequisite: STA302H1)</td>
</tr>
<tr>
<td>STA2052H</td>
<td>Statistics, Ethics, and Law</td>
</tr>
<tr>
<td>STA2053H</td>
<td>Special Topics in Applied Statistics (prerequisite: graduate-level statistical knowledge with permission of the instructor)</td>
</tr>
<tr>
<td>STA2080H</td>
<td>Fundamentals of Statistical Genetics</td>
</tr>
<tr>
<td>STA2453H</td>
<td>Data Science Methods, Collaborations, and</td>
</tr>
</tbody>
</table>

### Approved Computer Science Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC2221H</td>
<td>Introduction to the Theory of Distributed Computing</td>
</tr>
<tr>
<td>CSC2224H</td>
<td>Parallel Computer Architecture and Programming</td>
</tr>
<tr>
<td>CSC2231H</td>
<td>Special Topics in Computer Systems</td>
</tr>
<tr>
<td>CSC2240H</td>
<td>Graphs, Matrices, and Optimization</td>
</tr>
<tr>
<td>CSC2306H</td>
<td>High Performance Scientific Computing</td>
</tr>
<tr>
<td>CSC2412H</td>
<td>Algorithms for Private Data Analysis (prerequisite: CSC373H1 or equivalent, or permission of the instructor)</td>
</tr>
<tr>
<td>CSC2431H</td>
<td>Topics in Computational Biology and Medicine</td>
</tr>
<tr>
<td>CSC2501H</td>
<td>Computational Linguistics</td>
</tr>
<tr>
<td>CSC2506H</td>
<td>Probabilistic Learning and Reasoning</td>
</tr>
<tr>
<td>CSC2508H</td>
<td>Advanced Data Systems</td>
</tr>
<tr>
<td>CSC2511H</td>
<td>Natural Language Computing</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>CSC2514H</td>
<td>Human-Computer Interaction</td>
</tr>
<tr>
<td>CSC2515H</td>
<td>Introduction to Machine Learning (exclusion: ECE1513H)</td>
</tr>
<tr>
<td>CSC2516H</td>
<td>Neural Networks and Deep Learning (exclusion: MIE1517H)</td>
</tr>
<tr>
<td>CSC2520H</td>
<td>Geometry Processing</td>
</tr>
<tr>
<td>CSC2524H</td>
<td>Topics in Interactive Computing</td>
</tr>
<tr>
<td>CSC2526H</td>
<td>HCI: Topics in Ubiquitous Computing</td>
</tr>
<tr>
<td>CSC2529H</td>
<td>Computational Imaging</td>
</tr>
<tr>
<td>CSC2530H</td>
<td>Computer Vision for Advanced Digital Photography</td>
</tr>
<tr>
<td>CSC2537H</td>
<td>Information Visualization</td>
</tr>
<tr>
<td>CSC2547H</td>
<td>Current Algorithms and Techniques in Machine Learning</td>
</tr>
<tr>
<td>CSC2556H</td>
<td>Algorithms for Collective Decision Making</td>
</tr>
<tr>
<td>CSC2558H</td>
<td>Topics in Multidisciplinary HCI</td>
</tr>
<tr>
<td>CSC2604H</td>
<td>Topics in Human-Centred and Interdisciplinary Computing (prerequisite: CSC311H1 or CSC2515H or equivalent)</td>
</tr>
<tr>
<td>CSC2626H</td>
<td>Imitation Learning for Robotics</td>
</tr>
</tbody>
</table>

### Computer Science: Applied Computing

**MScAC (Quantum Computing Concentration)**

**MScAC Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in a related area such as physics, computer science, mathematics, or any discipline where there is a significant quantitative component. The completed bachelor’s degree must include significant exposure to physics, computer science, and mathematics, including coursework in advanced quantum mechanics, multivariate calculus, linear algebra, probability and statistics, programming languages, and computational methods.
- A standing equivalent to at least B+ in the final year of undergraduate studies.
- Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the following minimum scores:
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.
  - IELTS: an overall score of 7.0, with at least 6.5 for each component.
- If students complete a portion of their degree in English, or part of their degree at another university where English is the language of instruction, applicants must still provide proof of English-language proficiency.
- Three letters of reference from faculty and/or employers, with preference for at least one such letter from a faculty member in Physics.
- Applicants will be asked to respond to program-specific questions addressing their interest in the concentration and objectives for the program.
- Applicants must indicate a preference for the concentration in Quantum Computing in their application. Admission is competitive, and students who are admitted to the MScAC program are not automatically admitted to this concentration upon request.

**Program Requirements**

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE chosen from the Physics (PHY course designator) graduate course listings. Of eligible courses, the following are examples that are particularly relevant to the Quantum Computing concentration:
    - PHY1500H *Statistical Mechanics* (0.5 FCE)
    - PHY1520H *Quantum Mechanics* (0.5 FCE)
    - PHY1610H *Scientific Computing for Physicists* (0.5 FCE)
    - PHY2203H *Quantum Optics I* (0.5 FCE)
    - PHY2204H *Quantum Optics II* (0.5 FCE)
    - PHY2212H *Entanglement Physics* (0.5 FCE)
  - 1.0 FCE chosen from the Computer Science (CSC course designator) graduate course listings. Of eligible courses, the following are examples that are particularly relevant to the Quantum Computing concentration:
    - CSC2305H *Numerical Methods for Optimization Problems* (0.5 FCE)
    - CSC2421H *Topics in Algorithms* (0.5 FCE)
    - CSC2451H *Quantum Computing, Foundations to Frontier* (0.5 FCE)
  - 1.0 FCE in required courses:
    - CSC2701H *Communication for Computer Scientists* (0.5 FCE)
    - CSC2702H *Technical Entrepreneurship* (0.5 FCE)
- Course selections should be made in consultation with the Program Director. Appropriate substitutions may be possible with approval.
- An eight-month industrial internship, CSC2703H (3.5 FCEs). The internship is coordinated by the department and evaluated on a pass/fail basis.

**Program Length**

4 sessions full-time (typical registration sequence: F/W/S/F)

**Time Limit**

3 years full-time
Computer Science: Computer Science MSc

Master of Science

Program Description

The MSc degree program is designed for students seeking to be trained as a researcher capable of creating original, internationally recognized research in computer science.

The MSc program can be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science’s additional admission requirements stated below.
- An appropriate bachelor's degree with a standing equivalent to at least a University of Toronto B+. Preference is given to applicants who have studied computer science or a closely related discipline.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must achieve a Test of English as a Foreign Language (TOEFL) score of at least 580 on the paper-based test and 4 on the Test of Written English (TWE); 93/120 on the Internet-based test and 22/30 on the writing and speaking sections.

Program Requirements

- **Coursework.** Completion of 2.0 graduate full-course equivalents (FCEs) in computer science. The courses must satisfy breadth in three of the four different Methodologies of Computer Science to ensure that MSc graduates have a breadth of skills for research and problem solving throughout their careers.
- A major research paper (CSC4000Y; 1.0 FCE) demonstrating the student’s ability to do independent work in organizing existing concepts and in suggesting and developing new approaches to solving problems in a research area. The standard for this paper is that it could reasonably be submitted for peer-reviewed publication.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F);
8 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Computer Science: Computer Science PhD

Doctor of Philosophy

Program Description

The PhD degree program is designed for students seeking to be trained as a researcher capable of creating original, internationally recognized research in computer science. Research conducted under the supervision of a faculty member will constitute a significant and original contribution to computer science.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master’s degree or 2) direct entry following completion of a bachelor’s degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science’s additional admission requirements stated below.
- Successful completion of an appropriate master's degree with a standing equivalent to at least a University of Toronto B+. Preference is given to applicants who have studied computer science or a closely related discipline.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must achieve a Test of English as a Foreign Language (TOEFL) score of at least 580 on the paper-based test and 4 on the Test of Written English (TWE); or 93/120 on the Internet-based test and 22/30 on the writing and speaking sections.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis.
- The courses must satisfy breadth in four different research areas of computer science to ensure a broad and well-balanced knowledge of computer science.
- Students must meet the department's timeline for satisfactory progress as outlined in the PhD handbook.
- A meeting of the PhD supervisory committee must be held by the 16th month of the PhD program. This is typically the initial meeting with the supervisory committee and is referred to as the qualifying oral examination. After the qualifying oral, the student's PhD supervisory committee must meet at least once annually. The student must have their thesis topic approved at a PhD supervisory committee meeting within the time frame for achieving candidacy. The departmental thesis examination must be passed before the SGS Final Oral Examination can be scheduled.

Program Length

4 years
Time Limit
6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Computer Science's additional admission requirements stated below.
- Applicants may be admitted to this program directly from a bachelor's degree with a standing equivalent to at least a University of Toronto A–. Preference is given to applicants who have studied computer science or a closely related discipline.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must achieve a Test of English as a Foreign Language (TOEFL) score of at least 580 on the paper-based test and 4 on the Test of Written English (TWE); or 93/120 on the Internet-based test and 22/30 on the writing and speaking sections.

Program Requirements

- Students must successfully complete a total of 4.0 full-course equivalents (FCEs) and a thesis.
- The courses must satisfy breadth in four different research areas and three different methodologies of computer science to ensure a broad and well-balanced knowledge of computer science.
- Students must meet the department's timeline for satisfactory progress as outlined in the PhD handbook.
- A meeting of the PhD supervisory committee must be held by the 16th month of the PhD program. This is typically the initial meeting with the supervisory committee and is referred to as the qualifying oral examination. After the qualifying oral, the student's PhD supervisory committee must meet at least once annually. The student must have their thesis topic approved at a PhD supervisory committee meeting within the time frame for achieving candidacy. The departmental thesis examination must be passed before the SGS Final Oral Examination can be scheduled.

Program Length
5 years

Time Limit
7 years

Computer Science: Computer Science MScAC, MSc, PhD Courses

Not all courses are offered every year. Please consult the department for course offerings.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC1001H</td>
<td>Independent Research Project (Credit/No Credit)</td>
</tr>
<tr>
<td>CSC2103H</td>
<td>Software Testing and Verification (Prerequisites: CSC207H1, CSC236H1, CSC240H1.)</td>
</tr>
<tr>
<td>CSC2104H</td>
<td>Formal Methods of Program Design</td>
</tr>
<tr>
<td>CSC2107H</td>
<td>Compilers and Interpreters</td>
</tr>
<tr>
<td>CSC2108H</td>
<td>Automated Verification</td>
</tr>
<tr>
<td>CSC2125H</td>
<td>Topics in Software Engineering</td>
</tr>
<tr>
<td>CSC2130H</td>
<td>Empirical Research Methods in Software Engineering (Exclusion: ECE1785H.)</td>
</tr>
<tr>
<td>CSC2206H</td>
<td>Computer Systems Modelling</td>
</tr>
<tr>
<td>CSC2208H</td>
<td>Advanced Operating Systems</td>
</tr>
<tr>
<td>CSC2209H</td>
<td>Computer Networks</td>
</tr>
<tr>
<td>CSC2221H</td>
<td>Introduction to the Theory of Distributed Computing</td>
</tr>
<tr>
<td>CSC2222H</td>
<td>Applications of Parallel and Distributed Computing</td>
</tr>
<tr>
<td>CSC2224H</td>
<td>Parallel Computer Architecture and Programming</td>
</tr>
<tr>
<td>CSC2226H</td>
<td>Topics in Verification</td>
</tr>
<tr>
<td>CSC2227H</td>
<td>Topics in the Design and Implementation of Operating Systems</td>
</tr>
<tr>
<td>CSC2228H</td>
<td>Topics in Mobile, Pervasive, and Cloud Computing</td>
</tr>
<tr>
<td>CSC2231H</td>
<td>Special Topics in Computer Systems</td>
</tr>
<tr>
<td>CSC2233H</td>
<td>Topics in Storage Systems</td>
</tr>
<tr>
<td>CSC2240H</td>
<td>Graphs, Matrices, and Optimization</td>
</tr>
<tr>
<td>CSC2302H</td>
<td>Numerical Solutions of Initial Value Problems for Ordinary Differential Equations</td>
</tr>
<tr>
<td>CSC2305H</td>
<td>Numerical Methods for Optimization Problems</td>
</tr>
<tr>
<td>CSC2306H</td>
<td>High Performance Scientific Computing</td>
</tr>
<tr>
<td>CSC2310H</td>
<td>Computational Methods for Partial Differential Equations</td>
</tr>
<tr>
<td>CSC2321H</td>
<td>Matrix Calculations</td>
</tr>
<tr>
<td>CSC2326H</td>
<td>Topics in Numerical Analysis</td>
</tr>
<tr>
<td>CSC2332H</td>
<td>Introduction to Quantum Algorithms (Prerequisite: good knowledge of linear algebra and elementary real and complex analysis.)</td>
</tr>
<tr>
<td>CSC2401H</td>
<td>Introduction to Computational Complexity</td>
</tr>
<tr>
<td>CSC2404H</td>
<td>Computability and Logic</td>
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<td>Course Code</td>
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<tr>
<td>CSC2405H</td>
<td>Automata Theory</td>
</tr>
<tr>
<td>CSC2410H</td>
<td>Introduction to Graph Theory</td>
</tr>
<tr>
<td>CSC2412H</td>
<td>Algorithms for Private Data Analysis (Prerequisite: CSC373H1 or equivalent, or permission of the instructor.)</td>
</tr>
<tr>
<td>CSC2414H</td>
<td>Topics in Applied Discrete Mathematics</td>
</tr>
<tr>
<td>CSC2415H</td>
<td>Advanced Topics in the Theory of Distributed Computing</td>
</tr>
<tr>
<td>CSC2416H</td>
<td>Machine Learning Theory</td>
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<tr>
<td>CSC2417H</td>
<td>Algorithms for Genome Sequence Analysis</td>
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<tr>
<td>CSC2419H</td>
<td>Topics in Cryptography</td>
</tr>
<tr>
<td>CSC2420H</td>
<td>Algorithm Design, Analysis, and Theory</td>
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<tr>
<td>CSC2421H</td>
<td>Topics in Algorithms</td>
</tr>
<tr>
<td>CSC2426H</td>
<td>Fundamentals of Cryptography</td>
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<tr>
<td>CSC2427H</td>
<td>Topics in Graph Theory</td>
</tr>
<tr>
<td>CSC2429H</td>
<td>Topics in the Theory of Computation</td>
</tr>
<tr>
<td>CSC2431H</td>
<td>Topics in Computational Biology and Medicine</td>
</tr>
<tr>
<td>CSC2451H</td>
<td>Quantum Computing, Foundations to Frontier (Exclusion: MAT1751H.)</td>
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<tr>
<td>CSC2501H</td>
<td>Computational Linguistics</td>
</tr>
<tr>
<td>CSC2502H</td>
<td>Knowledge Representation and Reasoning</td>
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<tr>
<td>CSC2503H</td>
<td>Foundations of Computer Vision</td>
</tr>
<tr>
<td>CSC2504H</td>
<td>Computer Graphics</td>
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<tr>
<td>CSC2506H</td>
<td>Probabilistic Learning and Reasoning</td>
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<tr>
<td>CSC2508H</td>
<td>Advanced Data Systems</td>
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<tr>
<td>CSC2510H</td>
<td>Topics in Information Systems</td>
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<tr>
<td>CSC2511H</td>
<td>Natural Language Computing</td>
</tr>
<tr>
<td>CSC2512H</td>
<td>Advanced Propositional Reasoning</td>
</tr>
<tr>
<td>CSC2513H</td>
<td>Critical Thinking for Human Computer Interaction (Prerequisite: CSC318H1 or equivalent, or permission of the instructor.)</td>
</tr>
<tr>
<td>CSC2514H</td>
<td>Human-Computer Interaction</td>
</tr>
<tr>
<td>CSC2515H</td>
<td>Introduction to Machine Learning (Exclusion: ECE1513H.)</td>
</tr>
<tr>
<td>CSC2516H</td>
<td>Neural Networks and Deep Learning (Exclusion: MIE1517H.)</td>
</tr>
<tr>
<td>CSC2517H</td>
<td>Discrete Mathematical Models of Sentence Structure</td>
</tr>
<tr>
<td>CSC2518H</td>
<td>Spoken Language Processing</td>
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<tr>
<td>CSC2520H</td>
<td>Geometry Processing</td>
</tr>
<tr>
<td>CSC2521H</td>
<td>Topics in Computer Graphics</td>
</tr>
<tr>
<td>CSC2523H</td>
<td>Object Modelling and Recognition</td>
</tr>
<tr>
<td>CSC2524H</td>
<td>Topics in Interactive Computing</td>
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<tr>
<td>CSC2525H</td>
<td>Research Topics in Database Management</td>
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<tr>
<td>CSC2526H</td>
<td>HCI: Topics in Ubiquitous Computing</td>
</tr>
<tr>
<td>CSC2527H</td>
<td>The Business of Software</td>
</tr>
<tr>
<td>CSC2528H</td>
<td>Advanced Computational Linguistics</td>
</tr>
<tr>
<td>CSC2529H</td>
<td>Computational Imaging</td>
</tr>
<tr>
<td>CSC2530H</td>
<td>Computer Vision for Advanced Digital Photography</td>
</tr>
<tr>
<td>CSC2532H</td>
<td>Statistical Learning Theory (Prerequisite: CSC2515H.)</td>
</tr>
<tr>
<td>CSC2533H</td>
<td>Foundations of Knowledge Representation</td>
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<tr>
<td>CSC2536H</td>
<td>Topics in Computer Science and Education</td>
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<tr>
<td>CSC2537H</td>
<td>Information Visualization</td>
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<tr>
<td>CSC2539H</td>
<td>Topics in Computer Vision</td>
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<td>CSC2540H</td>
<td>Computational Cognitive Models of Language</td>
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<td>CSC2541H</td>
<td>Topics in Machine Learning</td>
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<tr>
<td>CSC2542H</td>
<td>Topics in Knowledge Representation and Reasoning</td>
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<tr>
<td>CSC2545H</td>
<td>Advanced Topics in Machine Learning (Prerequisite: CSC2515H or equivalent is recommended.)</td>
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<tr>
<td>CSC2546H</td>
<td>Computational Neuroscience</td>
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<tr>
<td>CSC2547H</td>
<td>Current Algorithms and Techniques in Machine Learning</td>
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<td>CSC2548H</td>
<td>Machine Learning in Computer Vision</td>
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<td>CSC2549H</td>
<td>Physics-Based Animation</td>
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<td>CSC2552H</td>
<td>Topics in Computational Social Science</td>
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<tr>
<td>CSC2556H</td>
<td>Algorithms for Collective Decision Making</td>
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<tr>
<td>CSC2558H</td>
<td>Topics in Multidisciplinary HCI</td>
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<tr>
<td>CSC2559H</td>
<td>Trustworthy Machine Learning</td>
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<tr>
<td>CSC2600H</td>
<td>Topics in Computer Science</td>
</tr>
<tr>
<td>CSC2604H</td>
<td>Topics in Human-Centred and Interdisciplinary Computing</td>
</tr>
<tr>
<td>CSC2606H</td>
<td>Introduction to Continuum Robotics (Prerequisite: Introduction to Robotics; e.g, CSC376H5 offered at UTM or AER525H1. Exclusion: CSC476H5 offered at UTM.)</td>
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<tr>
<td>CSC2611H</td>
<td>Computational Models of Semantic Change</td>
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<tr>
<td>CSC2612H</td>
<td>Computing and Global Development (Prerequisite: CSC318H1 or equivalent, or permission of the instructor.)</td>
</tr>
<tr>
<td>CSC2615H</td>
<td>Ethical Aspects of Artificial Intelligence</td>
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<tr>
<td>CSC2621H</td>
<td>Topics in Robotics (Prerequisite: CSC311H1 or CSC2515H.)</td>
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<tr>
<td>CSC2626H</td>
<td>Imitation Learning for Robotics (Prerequisite: CSC311H1 or CSC2515H or equivalent.)</td>
</tr>
<tr>
<td>CSC2630H</td>
<td>Introduction to Mobile Robotics (Required prerequisites: CSC209H1, MAT223H1, MAT232H5, and STA256H5 or equivalent. Recommended prerequisites: CSC311H1, CSC376H5, CSC384H1, and MAT224H1 or equivalent. Exclusions: AER1513H, CSC477H5.)</td>
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<tr>
<td>CSC2699H</td>
<td>Special Reading Course in Computer Science</td>
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<tr>
<td>CSC2701H</td>
<td>Communication for Computer Scientists</td>
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<tr>
<td>CSC2702H</td>
<td>Technical Entrepreneurship</td>
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<tr>
<td>CSC2703H</td>
<td>MScAC Internship</td>
</tr>
<tr>
<td>CSC2720H</td>
<td>Systems Thinking for Global Problems</td>
</tr>
<tr>
<td>CSC4000Y</td>
<td>MSc Research Project in Computer Science</td>
</tr>
</tbody>
</table>
Criminology and Sociolegal Studies

Criminology and Sociolegal Studies: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Criminology and Sociolegal Studies

MA and PhD

Combined Degree Programs

- STG, Law, Juris Doctor / Criminology and Sociolegal Studies, MA
- STG, Law, Juris Doctor / Criminology and Sociolegal Studies, PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Addiction Studies
  - Criminology and Sociolegal Studies, MA, PhD
- Diaspora and Transnational Studies
  - Criminology and Sociolegal Studies, MA, PhD
- Sexual Diversity Studies
  - Criminology and Sociolegal Studies, MA, PhD
- Women and Gender Studies
  - Criminology and Sociolegal Studies, MA, PhD

Overview

The Centre for Criminology and Sociolegal Studies, founded in 1964, offers advanced interdisciplinary study in two closely related, overlapping areas: criminology and sociolegal studies.

MA graduates find employment in government (in areas such as child and youth services or addiction as well as criminal justice fields), in governmental organizations in the criminal justice field, in social science research, or in other positions for which a background in criminology and sociolegal studies is useful. Some choose to go to law school, and many have gone on to other post-graduate work, such as in criminology, sociology, law, and social work.

PhD graduates have mainly found employment in tenure-track positions, most often in sociology departments or in criminology programs. Both the MA and PhD degree programs are academic rather than professional/vocational.

Students enrolled in doctoral programs in other departments of the University of Toronto may apply to be appointed as Junior Fellows at the Centre for Criminology and Sociolegal Studies. The objective of the Junior Fellow Program is to involve doctoral students whose work overlaps with the research conducted at the Centre and to enhance the interdisciplinarity of the Centre. Junior Fellows have come from history, geography, law, and sociology. Exceptionally, doctoral students pursuing degrees at other universities but residing in Toronto may apply to be appointed as Visiting Junior Fellows.

Contact and Address

Web: [www.crimsl.utoronto.ca](http://www.crimsl.utoronto.ca)
Email: crim.grad@utoronto.ca
Telephone: (416) 978-7124 ext. 225
Fax: (416) 978-4195

Centre for Criminology and Sociolegal Studies
University of Toronto
14 Queen's Park Crescent West
Toronto, Ontario M5S 3K9
Canada

Criminology and Sociolegal Studies: Graduate Faculty

Full Members

- Chen, Li - BA, MA, AM, JD, PhD
- Chiao, Vincent - BA, PhD, JD
- Clarke, Kamari - BA, MA, MPH, LLM, PhD
- Dubber, Markus - AB, JD
- Goodman, Philip - BA, MA, PhD
- Hannah-Moffat, Kelly - BA, MA, PhD
- Jauregui, Beatrice - BA, MA, PhD
- Light, Matthew - BA, MA, JD, PhD
- Macklin, Audrey - BSc, LLB, LLM
- Maurutto, Paula - DPhil
- Phillips, James - LLB, MA, PhD
- Roach, Kent - BA, LLB, LLM
- Wortley, N. Scot - BA, MA, PhD

Members Emeriti

- Friedland, Martin - BCom, LLB, PhD
- Kruttschnitt, Candace - BA, MA, MPH, PhD
- Valverde, Mariana - BA, MA, PhD, FRSC

Associate Members

- Mitchell, Mary - BA, BA, JD, MA, MA, PhD, PhD

Criminology and Sociolegal Studies: Criminology and Sociolegal Studies MA

Master of Arts

Program Description

The MA program encompasses two related disciplinary and interdisciplinary fields.
The first is criminology, which can be briefly defined as the study of all aspects of crime, including its definitions, causes, and intellectual genealogy, as well as the policy and institutional responses to it. Although criminology features some aspects of a separate discipline, including its own theoretical schools, journals, and university departments, it also draws heavily on related social science disciplines.

The field of sociolegal studies, also known as the law and society movement, is a related interdisciplinary research tradition that investigates a broad range of legal phenomena using the techniques and approaches of social science. Examples of such phenomena that the faculty have studied include citizenship and immigration policy, urban planning, and the regulation of alcohol and sex work.

The program is distinctive in that these bodies of knowledge are treated as closely related, and both of them are incorporated into the program of study. Broad intellectual exploration of these fields is incorporated by limiting the number of required courses and encouraging students to select courses (both in this and other graduate programs) that reflect their own intellectual and professional priorities. Likewise, students are given the option of meeting their degree requirements by completing eight taught half-courses and writing a "master's research paper" that allows them to develop an independent research project under the supervision of a faculty member. While specialized professional or technical training meant to be directly transferable into criminal justice occupations is not provided, we welcome applications by criminal justice professionals who wish to pursue part-time studies.

The MA program enjoys an excellent national and international reputation, and graduates are sought by employers in both the public and private sectors who appreciate the theoretically and academically rigorous interdisciplinary social science training that is provided.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the additional admission requirements of the Centre for Criminology and Sociolegal Studies stated below.
- Applicants must have an appropriate bachelor's degree from a recognized university. An appropriate bachelor's degree normally consists of 20 full-course equivalents (FCEs). Applicants with arts and science degrees will normally be required to have at least a B+ standing. Applicants from law schools who have already completed a JD degree or its equivalent will normally be required to have at least a B standing.
- Although many applicants to the MA program have some training in criminology or sociolegal studies, students from a variety of disciplinary and interdisciplinary backgrounds are welcomed. It would be advantageous for MA students in the program to have some familiarity with the approaches and methodologies associated with the social sciences. However, outstanding students from the humanities and behavioral and natural sciences will also be considered.
- The program can be completed on a full-time or part-time basis. All students will be required to complete the program within the time limits set for the MA degree under the General Regulations of the School of Graduate Studies. Students with professional experience who meet the academic admission requirements are encouraged to apply to the program.

- It is essential that all incoming graduate students have a command of English. Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English. This requirement must be satisfied using a Test of English as a Foreign Language (TOEFL) with a verbal and a written component. To be considered for admission, applicants must achieve the following minimum scores:
  - paper-based TOEFL exam: 580 and 5 on the Test of Written English (TWE)
  - Internet-based TOEFL exam: 93/120 and 22/30 on the writing and speaking sections.

Official copies of these scores must be submitted to the University of Toronto before a formal offer of admission can be made.

Program Requirements

- MA students can complete the program in one of two ways:
  - by completing 4.0 full-course equivalents (FCEs) within 9 months
  - by completing 3.0 FCEs and a research paper (CRI3360Y) within 12 months.
- The degree program includes compulsory and elective courses.
  - The compulsory course (0.5 FCE) is CRI2010H Methodological Issues in Criminology and Sociolegal Studies.
  - The elective courses allow students to engage in specialized study of different approaches to, and topics within, criminology and sociolegal studies. The elective courses offered may vary from year to year. In certain cases a student may, with the approval of the Graduate Coordinator, substitute a maximum of 1.5 FCEs from other graduate units in lieu of elective courses in criminology or sociolegal studies.

Program Length

- 3 sessions full-time (typical registration sequence: F/W/S)
- 6 sessions part-time

Time Limit

- 3 years full-time:
- 6 years part-time

Criminology and Sociolegal Studies: Criminology and Sociolegal Studies PhD

Doctor of Philosophy

Program Description

Similar to the MA program, the PhD program reflects the same emphasis on interdisciplinarity and flexibility, as well as an integrated, inclusive approach to criminology and sociolegal studies.
The primary mission of the doctoral program is to prepare future professional academics for a career in teaching and research; graduates hold faculty positions throughout Canada, in the United States, and around the world.

Over the years, PhD students have pursued dissertation projects on extremely varied research questions involving aspects of crime, criminal justice institutions, and a range of sociolegal topics. Regardless of their specific focus, they have found the Centre a supportive and interactive environment. The Centre promotes such collegiality by offering students shared office space in the Centre and encouraging them to work on site and participate in the lively intellectual life and shared scholarly activities. Likewise, although PhD students work closely with a primary supervisor, they also benefit from opportunities to learn from other core and cross-appointed faculty members. In short, the goal is to train broadly educated, thoughtful scholars with a research agenda in criminology or sociolegal studies.

Students are normally paired with a prospective supervisor at the time of admission. Therefore, applicants are encouraged to identify one or more possible supervisors, as well as possible dissertation committee members, and should indicate on their application whether they have made contact with particular core or cross-appointed members of the graduate faculty for these purposes.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for Criminology and Sociolegal Studies' additional admission requirements stated below.

- Applicants normally hold an MA degree in criminology or a cognate field, with a minimum A– standing or its equivalent from a recognized university. Students with MAs in disciplines unrelated to criminology or sociolegal studies may be required to take additional courses as part of their doctoral program.

- It is essential that all incoming graduate students have a command of English. Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduated from a university where the language of instruction and examination was not English. This requirement must be satisfied using a Test of English as a Foreign Language (TOEFL) with a verbal and a written component. To be considered for admission, applicants must achieve the following minimum scores:
  - paper-based TOEFL exam: 580 and 5 on the Test of Written English (TWE)
  - Internet-based TOEFL exam: 93/120 and 22/30 on the writing and speaking sections.

- Official copies of these scores must be submitted to the University of Toronto before a formal offer of admission can be made.

Program Requirements

- **Course requirements.** Students must complete a minimum of 2.0 full-course equivalents (FCEs) beyond those taken at the MA level. With approval of the Graduate Coordinator, a maximum of 1.5 FCEs of these may be from another graduate unit. Students must complete, at either the MA or the PhD level, the required research methods course (CRI2010H Methodological Issues in Criminology and Sociolegal Studies) and the required theory course (CRI1020H Law and State Power: Theoretical Perspectives). With the approval of the Graduate Coordinator, students can take a theory course offered through another graduate unit in lieu of CRI1020H. Students will normally complete all course requirements for the PhD in Year 1.

- **Professional development sequence.** Year 1 doctoral students will participate in CRI1010Y (Credit/No Credit; 0.0 FCE), a sequence of eight monthly workshop meetings of approximately two hours in length led by one or more faculty members and dedicated to discussion of a range of important issues in graduate professional development. Meetings will be scheduled at the beginning of the academic year, and attendance will be taken at each meeting. Students must normally attend at least six workshop meetings by the end of the second session of Year 1 to complete this requirement, and those who do not do so must make up the required sessions by the end of the second session of Year 2.

- **One comprehensive exam.** This exam must take the form of a major review paper. Students are required to read widely on a particular topic and identify and evaluate major theoretical debates and methodological issues. Students should provide an original, critical analysis of the literature and discuss possibilities for future work in their topic area. The comprehensive exam should normally be completed by the end of the second session of Year 2.

- **Language requirements.** Students must have an adequate knowledge of a language other than English if an additional language is deemed essential for satisfactory completion of research for the thesis.

- **Thesis.** PhD students must prepare an original thesis that is a significant contribution to knowledge in criminology or sociolegal studies. The thesis is a sustained piece of research written in an integrated series of chapters. The thesis is normally supervised by a member of the graduate faculty, with two other members of the graduate faculty serving on the thesis committee.

- **Residency.** PhD students are required to be on campus full-time for the period of their program, except for approved field research and academic exchanges. Students are expected to participate in the Centre’s activities associated with the program.

Program Length

- 4 years full-time

Time Limit

- 6 years full-time

Criminology and Sociolegal Studies: Criminology and Sociolegal Studies MA, PhD Courses

All courses are half courses (0.5 full-course equivalent [FCE]), with the exception of CRI3360Y Research Paper (1.0 FCE).
Not all courses are offered every year. Consult the Centre for Criminology and Sociolegal Studies regarding course availability.

Due to space limitations, criminology graduate students will be given priority in graduate course enrolment. All other students must receive written permission from the instructor and the Graduate Coordinator before enrolling in any of the Centre's graduate courses.

### Required Courses

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<th>Course Code</th>
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<tr>
<td>CRI1010Y</td>
<td>Professional Development Workshops (Credit/No Credit)</td>
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<tr>
<td>CRI2010H</td>
<td>Methodological Issues in Criminology and Sociolegal Studies</td>
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### Elective Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CRI1020H</td>
<td>Law and State Power: Theoretical Perspectives</td>
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<tr>
<td>CRI1030H</td>
<td>Introduction to Science and Technology Studies: Sociolegal Approaches</td>
</tr>
<tr>
<td>CRI1050H</td>
<td>Transnationalism, Culture, and Power (TCP)</td>
</tr>
<tr>
<td>CRI2020H</td>
<td>Applied Statistics in Criminology</td>
</tr>
<tr>
<td>CRI2120H</td>
<td>Data Analysis</td>
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<tr>
<td>CRI2140H</td>
<td>Guilt, Responsibility, and Forensics</td>
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<tr>
<td>CRI2150H</td>
<td>Preventing Wrongful Convictions</td>
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<td>CRI3020H</td>
<td>Criminology and the Policy-Making Process</td>
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<tr>
<td>CRI3110H</td>
<td>Qualitative Research Methods</td>
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<td>CRI3130H</td>
<td>Policing</td>
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<td>CRI3140H</td>
<td>Special Topics in Criminology and Sociolegal Studies</td>
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<tr>
<td>CRI3146H</td>
<td>Inequality and Criminal Justice</td>
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<tr>
<td>CRI3150H</td>
<td>Special Topics in Criminology and Sociolegal Studies</td>
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<tr>
<td>CRI3220H</td>
<td>Organized Crime and Corruption</td>
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<tr>
<td>CRI3240H</td>
<td>Penology</td>
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<tr>
<td>CRI3270H</td>
<td>The Psychology of Criminal Behaviour: Theory and Practice</td>
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<tr>
<td>CRI3310H</td>
<td>Special Topics in Criminology and Sociolegal Studies</td>
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<tr>
<td>CRI3320H</td>
<td>The Criminal Process</td>
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<tr>
<td>CRI3330H</td>
<td>Contemporary Issues in Safety and Security</td>
</tr>
<tr>
<td>CRI3340H</td>
<td>Special Topics in Criminology and Sociolegal Studies</td>
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</tbody>
</table>

*CRI3350H* Directed Research in Criminology and Sociolegal Studies  
*CRI3351H* Directed Research in Criminology and Sociolegal Studies  
*CRI3355H* Sentencing  
*CRI3356H* Youth Crime and Youth Justice  
*CRI3360Y* MA Research Paper  

* Course that may continue over a program. Credit is given when the course is completed, or the course is graded when completed.
Curriculum, Teaching and Learning

CTL: Introduction

Faculty Affiliation
Ontario Institute for Studies in Education (OISE)

Degree Programs

Curriculum and Pedagogy

MA, MEd, and PhD

- Emphases:
  - Arts in Education;
  - Critical Studies in Curriculum and Pedagogy;
  - Digital Technologies in Education;
  - Indigenous Education and Decolonization;
  - Science, Mathematics and Technology (SMT);
  - Wellbeing

- Field (MEd only):
  - Online Teaching and Learning

Language and Literacies Education

MA

MEd

- Field:
  - Language Teaching

PhD

Teaching

MT

- Fields:
  - Elementary Education;
  - Secondary Education

Combined Degree Programs

- STG, English (Major), Honours BA / MT
- STG, History (Major), Honours BA / MT
- STG, Kinesiology, BKin / MT
- STG, Mathematics (Major), Honours BSc / MT
- STG, Music Education (Stream), MusBac / MT
- STG, Physical Education and Health, BPHE / MT (this program will close on August 31, 2025)
- STG, Psychology (Major), Honours BSc / MT
- STG, Sociology (Major), Honours BA / MT
- UTM, Astronomical Sciences (Specialist), Honours BSc / MT
- UTM, Biological Chemistry (Specialist), Honours BSc / MT
- UTM, Biology for Health Sciences (Major), Honours BSc / MT
- UTM, Biology (Major), Honours BSc / MT
- UTM, Biology (Specialist), Honours BSc / MT
- UTM, Chemistry (Major), Honours BSc / MT
- UTM, Comparative Physiology (Specialist), Honours BSc / MT
- UTM, Ecology and Evolution (Specialist), Honours BSc / MT
- UTM, Forensic Biology (Specialist), Honours BSc / MT
- UTM, Forensic Chemistry (Specialist), Honours BSc / MT
- UTM, French Studies (Major), Honours BA / MT
- UTM, French Studies (Specialist), Honours BA / MT
- UTM, Language Teaching and Learning: French and Italian (Specialist), Honours BA / MT
- UTM, Language Teaching and Learning: French (Major), Honours BA / MT
- UTM, Mathematical Sciences (Major), Honours BSc / MT
- UTM, Mathematical Sciences (Specialist), Honours BSc / MT
- UTM, Molecular Biology (Specialist), Honours BSc / MT
- UTM, Physics (Major), Honours BSc / MT
- UTSC, Biochemistry (Major), Honours BSc / MT
- UTSC, Biochemistry (Major Co-op), Honours BSc / MT
- UTSC, Biology (Major), Honours BSc / MT
- UTSC, Biology (Major Co-op), Honours BSc / MT
- UTSC, Chemistry (Major), Honours BSc / MT
- UTSC, Chemistry (Major Co-op), Honours BSc / MT
- UTSC, Chemistry (Specialist), Honours BSc / MT
- UTSC, Chemistry (Specialist Co-op), Honours BSc / MT
- UTSC, Conservation and Biodiversity (Major), Honours BSc / MT
- UTSC, Conservation and Biodiversity (Specialist), Honours BSc / MT
- UTSC, English (Major), Honours BA / MT
- UTSC, English (Major Co-op), Honours BA / MT
- UTSC, English (Specialist), Honours BA / MT
- UTSC, English (Specialist Co-op), Honours BA / MT
- UTSC, Environmental Chemistry (Specialist), Honours BSc / MT
- UTSC, Environmental Chemistry (Specialist Co-op), Honours BSc / MT
- UTSC, Environmental Physics (Specialist), Honours BSc / MT
- UTSC, Environmental Physics (Specialist Co-op), Honours BSc / MT
- UTSC, Evolutionary Anthropology (Major), Honours BSc / MT
- UTSC, Evolutionary Anthropology (Specialist), Honours BSc / MT
- UTSC, French (Major), Honours BA / MT
- UTSC, French (Major Co-op), Honours BA / MT
- UTSC, French (Specialist), Honours BA / MT
- UTSC, French (Specialist Co-op), Honours BA / MT
- UTSC, Global Environmental Change (Specialist), Honours BSc / MT
- UTSC, Global Environmental Change (Specialist Co-op), Honours BSc / MT
- UTSC, History (Major), Honours BA / MT
- UTSC, History (Specialist), Honours BA / MT
- UTSC, Human Biology (Major), Honours BSc / MT
- UTSC, Human Biology (Specialist), Honours BSc / MT
- UTSC, Human Geography (Major), Honours BA / MT
- UTSC, Human Geography (Specialist), Honours BA / MT
- UTSC, Integrative Biology (Specialist), Honours BSc / MT
- UTSC, Mathematics (Major), Honours BSc / MT
- UTSC, Mathematics (Major Co-op), Honours BSc / MT
- UTSC, Mathematics (Specialist), Honours BSc / MT
- UTSC, Mathematics (Specialist Co-op), Honours BSc / MT
- UTM, Chemistry (Specialist), Honours BSc / MT
- UTM, Comparative Physiology (Specialist), Honours BSc / MT
- UTM, Ecology and Evolution (Specialist), Honours BSc / MT
- UTM, Forensic Biology (Specialist), Honours BSc / MT
- UTM, Forensic Chemistry (Specialist), Honours BSc / MT
- UTM, French Studies (Major), Honours BA / MT
- UTM, French Studies (Specialist), Honours BA / MT
- UTM, Language Teaching and Learning: French and Italian (Specialist), Honours BA / MT
- UTM, Language Teaching and Learning: French (Major), Honours BA / MT
- UTM, Mathematical Sciences (Major), Honours BSc / MT
- UTM, Mathematical Sciences (Specialist), Honours BSc / MT
- UTM, Molecular Biology (Specialist), Honours BSc / MT
- UTM, Physics (Major), Honours BSc / MT
- UTSC, Biochemistry (Major), Honours BSc / MT
- UTSC, Biochemistry (Major Co-op), Honours BSc / MT
- UTSC, Biology (Major), Honours BSc / MT
- UTSC, Biology (Major Co-op), Honours BSc / MT
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- UTSC, Conservation and Biodiversity (Specialist), Honours BSc / MT
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- UTSC, Environmental Chemistry (Specialist Co-op), Honours BSc / MT
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- UTSC, French (Major Co-op), Honours BA / MT
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- UTSC, Global Environmental Change (Specialist Co-op), Honours BSc / MT
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- UTSC, Mathematics (Major Co-op), Honours BSc / MT
- UTSC, Mathematics (Specialist), Honours BSc / MT
- UTSC, Mathematics (Specialist Co-op), Honours BSc / MT
Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Comparative, International and Development Education**
  - Curriculum and Pedagogy, MA, MEd, PhD
  - Language and Literacies Education, MA, MEd, PhD
- **Education, Francophonies and Diversity**
  - Curriculum and Pedagogy, MA, MEd, PhD
  - Language and Literacies Education, MA, MEd, PhD
- **Educational Policy** (admissions have been administratively suspended)
  - Curriculum and Pedagogy, MA, MEd, PhD
  - Language and Literacies Education, MA, MEd, PhD
- **Engineering Education**
  - Curriculum and Pedagogy, MA, PhD
- **Ethnic, Immigration and Pluralism Studies**
  - Language and Literacies Education, MA, MEd, PhD
- **Knowledge Media Design**
  - Curriculum and Pedagogy, MA, MEd, PhD
  - Language and Literacies Education, MA, MEd, PhD
- **Sexual Diversity Studies**
  - Curriculum and Pedagogy, MA, MEd, PhD
- **Women and Gender Studies**
  - Curriculum and Pedagogy, MA, MEd, PhD
  - Language and Literacies Education, MA, MEd, PhD

**Overview**

The Department of Curriculum, Teaching and Learning (CTL) is the largest of four departments at the Ontario Institute for Studies in Education (OISE). With a diverse community of tenured and tenure-stream faculty as well as lecturers, the department offers a wide range of graduate courses and programs relating to academic scholarship and professional practice. Faculty and students research, write, and teach about a wide variety of subjects concerning children, youth, and teachers, both in and out of schools.

**Contact and Address**

**Admissions**

Initial inquiries regarding admission to graduate studies in the Department of Curriculum, Teaching and Learning (CTL) should be made directly to:

Web: [www.oise.utoronto.ca/registrar-students](http://www.oise.utoronto.ca/registrar-students)
Email: admissions.oise@utoronto.ca
Tel: (416) 978-4300
Fax: (416) 323-9964

Registrar’s Office and Student Experience
Ontario Institute for Studies in Education (OISE)
University of Toronto
252 Bloor Street West, Room 8-225
Toronto, Ontario M5S 1V6
Canada

**Program**

Web: [www.oise.utoronto.ca/ctl](http://www.oise.utoronto.ca/ctl)
Email: [www.oise.utoronto.ca/ctl/contact](http://www.oise.utoronto.ca/ctl/contact)

Department of Curriculum, Teaching and Learning
Ontario Institute for Studies in Education (OISE)
University of Toronto
252 Bloor Street West, 11th Floor
Toronto, Ontario M5S 1V6
Canada

**CTL: Graduate Faculty**

**Full Members**

Bale, Jeff - BA, MS, PhD
Bickmore, Kathy - MA, PhD
Brant, Jennifer - BA, MEd, PhD
Brett, Clare - BA, MA, PhD
Burke, Carol-Ann - DipEd, BA, MEd, PhD
Campbell, Elizabeth - BA, BEd, MEd, PhD
Cooper, Karyn - PhD
Gagne, Antoinette - BEd, MEd, PhD
Gallagher, Kathleen Marie - PhD
Gaztambide-Fernandez, Ruben - BM, MEd, EdD
Gitari, Wanjia - BEd, MA, PhD
Goldstein, Tara - BA, PhD
Hampton, Rosalind - BFA, MA, PhD
Hewitt, Jim - BEd, BMath, MEd, PhD *(Associate Chair, Graduate Studies)*
Kempf, Arto - BA, MEd, PhD
Kerekes, Julie - BA, MA, PhD
Kooy, Mary - BA, MA, PhD
Labrie, Normand - BA, MA, PhD
Lam, Tony - BA, MA, PhD
Le Pichon-Vorstman, Emmanuelle - PhD
Levine, David - BA, MA, PhD
Lory, Marie-Paule - BA, MS, MS, PhD
Mantie, Roger Allan - BM, MM, PhD
McDougall, Douglas - BM, BEd, MEd, EdD
Miller, John - BA, MAT, PhD
Morgan, Cecilia Louise - BA, BA, MA, PhD
Niyozov, Sarfaroz - MEA, MA, PhD
Pedretti, Erminia - BE, MEd, PhD
Picardo, Enrica - MA, PhD
Rehner, Katherine - BA, BE, MEd, PhD
Scardamalia, Marlene - PhD
Simon, Rob - BA, MA, MTh, PhD
Slotta, James - BS, MPsy, PhD
Springgay, Stephanie - BEd, BFA, MA, PhD
Stagg Peterson, Shelley - BE, MEd, PhD
Steele, Jeffrey - BA, MA, PhD
Styres, Sandra - BEd, MEd, PhD
Sykes, Heather - BSc, PhD
Trifonas, Peter Pericles - BE, BA, PhD

Members Emeriti

Beattie, Mary - BA, BA, MA, MEd, EdD
Beck, Clive - PhD
Bencze, Lawrence - BEd, BSc, MSc, PhD
Bennett, Barrie - BPHE, MEd, PhD
Bereiter, Carl - PhD
Cameron, Linda - BA, MEd, EdD
Cummins, James - BA, PhD
Hanna, Gila - BA, MA, MEd, PhD
Jordan, Anne - BA, MA, PhD
Kosnik, Clare - DPhil, DPhil
Rolheiser, Carol - BEd, MEd, PhD
Sandwell, Ruth - BA, MA, PhD
Smyth, Elizabeth - BA, BEd, MA, EdD
Spada, Nina - BA, MA, PhD
Thiessen, Dennis - AB, MEd, DPhil
Troper, Harold - BA, MA, PhD

Associate Members

Alexander, Qui - AB, PhD
Allen, Guy - BA, MA, PhD
Broad, Kathy - BEd, BA, MEd, PhD
Brownell, Cassie - BA, MEd, PhD
Campbell, Andrew - BPHRE, MEd, PhD
Cavalcante, Alexandre - MSc
DeBraga, Michael - BS, MS, PhD
Donald, Dwayne - BA, BEd, MEd, PhD
Dubek, Michelle - PhD
Gini-Newman, Garfield - BA, BE, MA
Lawrence, Geoffrey - PhD
Lui, Michelle - BPhm, PhD
Marks Krpan, Cathy - BEd, MEd, EdD
Marzi, Elham - BA, BIS, MIR, PhD
Montemurro, David - BEA, BA, MES
Murphy-Graham, Erin - EdD
Poland, Blake - BA, PhD
Rajendram, Shakina - PhD
Robles Garcia, Pablo - BA, MA
Stewart Rose, Leslie - BEd, BM, MA, EdD
Tarc, Aparna - BA, BE, MEd, PhD
Tucker, Shawa-Kaye - BA, MSc
Vemic, Angela - BA, BEd, MA, PhD
Wang, Zhaozhe - BA, MA, PhD
White, Robert - PhD

CTL: Curriculum and Pedagogy Overview

Program Description

The Curriculum and Pedagogy (C&P) program is a forum for systematic reflection on curriculum and pedagogy, viewed in the broadest sense as educational experiences and the learning and teaching experiences that occur in both formal and informal settings. This includes a critical examination of the substance (subject matter, courses, programs of study), purposes, and the practices and relationships through which teaching and learning happen in educational settings. Given the diverse academic and research interests of faculty members, the program is organized into six program emphases.

The C&P program offers the following six program emphases:

- Arts in Education
- Critical Studies in Curriculum and Pedagogy
- Digital Technologies in Education
- Indigenous Education and Decolonization
- Science, Mathematics and Technology (SMT)
- Wellbeing

PhD, MA, and MEd students enrolled in the C&P program are required to complete three courses from a list of courses affiliated with the emphasis, in order to have the emphasis noted on their transcript. Upon successful completion of the emphasis requirements and successful completion of the degree requirements, students may make a request with the C&P administrator, prior to graduation, to have the emphasis noted on the student transcript.

CTL: Curriculum and Pedagogy MA

Master of Arts

The MA degree program is designed to provide academic study and research training related to curriculum and pedagogy. Applicants who anticipate going on to further study at the PhD level are advised to apply for enrolment in an MA rather than an MEd degree program. The MA can be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.
- Admission normally requires an appropriate bachelor's degree, with the equivalent of at least a University of Toronto mid-B or better in the final year, in a relevant discipline or professional program.
- Ordinarily, applicants will have at least one year of relevant, successful, professional experience prior to applying.
- Responses to Faculty questions in the online admissions application: Applicants should state the reasons they wish to undertake a research-oriented program of study in curriculum and pedagogy. The chief academic interests and experience, professional concerns, and career plans related to any aspect of curriculum and pedagogy should be discussed.
In order to identify their research interests in their responses to the Faculty questions, applicants should visit the Curriculum and Pedagogy program web page.

- The Admissions Committee reviews these responses to determine the areas of study and/or problems of curriculum and pedagogy in which an applicant is most interested and to link the applicant to appropriate faculty advisors.

### Program Requirements

#### Coursework
Students must complete **4.0 full-course equivalents (FCEs)** as follows:
- At least 2.0 FCEs, normally CTL 1000-level courses undertaken in the Curriculum and Pedagogy program.
- CTL1000H Foundations of Curriculum & Pedagogy (0.5 FCE).
- A research methods course (0.5 FCE) from an approved course listing.
- Additional courses may be required of some applicants, depending on previous experience and academic qualifications.

#### Thesis
- Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, and thesis ethical review.

### Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
10 sessions part-time

### Time Limit

3 years full-time;
6 years part-time

### CTL: Curriculum and Pedagogy MEd

#### Master of Education

The Master of Education (MEd) degree program is designed chiefly for the professional development of those who are already engaged in a career related to education, broadly defined. Applicants who anticipate going on to further study at the PhD level are advised to apply for enrolment in an MA rather than an MEd degree program. The MEd program is offered as a general program (no field) or as an Online Teaching and Learning field. The field in Online Teaching and Learning is designed for students interested in engaging with scholarly research in distance education and who want to learn how to effectively instruct and design online courses.

The MEd can be taken on a full-time or part-time basis.

Note: The MEd is not a teacher certification program. Find out more about teacher certification programs.

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### MEd General Program (No Field)

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies, which specify an appropriate bachelor's degree from a recognized university. This degree must be completed with an academic standing equivalent to a University of Toronto mid-B or better in the final year. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.
- Ordinarily, applicants will have at least one year of relevant, successful, professional experience prior to applying.
- Responses to Faculty questions in the online admissions application: applicants should state the reasons they wish to study curriculum at the graduate level. The chief academic interests, professional concerns, and career plans related to curriculum studies and teacher development should be discussed. In order to identify their research interests in the responses to the Faculty questions, applicants should visit the Curriculum and Pedagogy program web page. The admissions committee reviews these responses to determine the kind of focus or area of study in which an applicant is most interested and to link the applicant to appropriate faculty advisors.

#### Program Requirements

- **Coursework.** Students must complete **5.0 full-course equivalents (FCEs)** as follows:
  - At least 2.5 FCEs, normally CTL 1000-level courses undertaken in the Curriculum and Pedagogy program.
  - CTL1000H Foundations of Curriculum & Pedagogy (0.5 FCE).
  - A research methods course (0.5 FCE) from an approved course listing.
  - Additional study may be required either within the degree program or prior to admission, depending on previous experience and academic qualifications.

#### Program Length

4 sessions full-time (typical registration sequence: F/W/S/F);
10 sessions part-time

#### Time Limit

3 years full-time;
6 years part-time

### CTL: Curriculum and Pedagogy MEd; Field: Online Teaching and Learning

#### Master of Education

The Master of Education (MEd) degree program is designed chiefly for the professional development of those who are already engaged in a career related to education, broadly defined. Applicants who anticipate going on to further study at the PhD level are advised to apply for enrolment in an MA rather than an MEd degree program.
The MEd program is offered as a general program (no field) or as an Online Teaching and Learning field. The field in Online Teaching and Learning is designed for students interested in engaging with scholarly research in distance education, who want to learn how to effectively instruct and design online courses.

The MEd can be taken on a full-time or part-time basis.

Note: The MEd is not a teacher certification program. Find out more about teacher certification programs.

**Field: Online Teaching and Learning**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies, which specify an appropriate bachelor's degree from a recognized university. This degree must be completed with an academic standing equivalent to a University of Toronto mid-B or better in the final year. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.

- Ordinarily, applicants will have at least one year of relevant, successful professional experience prior to applying.

- Responses to Faculty questions in the online admissions application: applicants should state the reasons they wish to study curriculum at the graduate level. The chief academic interests, professional concerns, and career plans related to curriculum studies and teacher development should be discussed. In order to identify their research interests in their responses to the Faculty questions, applicants should visit the Curriculum and Pedagogy program web page. The admissions committee reviews these responses to determine the kind of focus or area of study in which an applicant is most interested and to link the applicant to appropriate faculty advisors.

**Program Requirements**

- **Coursework.** Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - 1.5 FCEs in required courses: CTL1000H, CTL1620H, and CTL1624H.
  - 1.5 FCEs from the following: CTL1603H, CTL1606H, CTL1608H, CTL1609H, CTL1615H, CTL1616H, CTL1617H, CTL1621H, CTL1622H, CTL1623H, CTL1625H, CTL1926H.
  - 2.0 FCEs in elective courses.

- Additional study may be required either within the degree program or prior to admission, depending on previous experience and academic qualifications.

**Program Length**

4 sessions full-time (typical registration sequence: F/W/S/F); 10 sessions part-time

**Time Limit**

3 years full-time; 6 years part-time

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**CTL: Curriculum and Pedagogy PhD**

**Doctor of Philosophy**

The PhD program demands a strong commitment to research. The Curriculum and Pedagogy program offers both full-time and flexible-time PhD program options. Degree requirements for both options are the same; only the length of time to completion differs (see Program Length below). Applicants must declare the option for which they wish to apply.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.

- A master's degree in education from a recognized university with a grade equivalent to a University of Toronto B+ or better and in the same area of specialization as proposed at the doctoral level is required. Further documentation may be required to establish equivalence.

- Applicants ordinarily have a minimum of two years' professional experience prior to applying.

- Applicants are required to submit, along with the application:
  - Their master's thesis or a sample of single-authored scholarly writing; for details about what constitutes an appropriate writing sample, visit the Curriculum and Pedagogy program web page.
  - Responses to Faculty questions in the online admissions application describing their intellectual interests and concerns relevant to curriculum and pedagogy, reasons for wishing to take the program, previous qualifications and professional experiences, and articulating their research and professional interests, and future career goals.
  - Two letters of reference: one academic and one professional.

**Program Requirements**

- **Coursework.** Students must normally complete 3.5 full-course equivalents (FCEs) as follows:
  - At least 2.0 FCEs, normally CTL 1000-level courses.
  - CTL1899H C&P Doctoral Proseminar in Curriculum & Pedagogy (0.5 FCE).
  - Students are expected to take CTL1000H Foundations of Curriculum & Pedagogy (0.5 FCE) if they did not complete it at the master's level.
  - Additional courses may be required of some students.
  - One research methods course (0.5 FCE) from an approved course listing.

- **Comprehensive examination.** The Curriculum and Pedagogy comprehensive exam is a 7,000-word paper usually written after students complete their coursework, and at the latest by the end of Year 3 of the PhD, before the candidacy deadline. The purpose of this exam is to demonstrate proficiency in major current theories and literature in the field of curriculum studies and is designed to ascertain whether a student has obtained the knowledge and skills to continue in the doctoral program.

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Program Requirements

- Coursework. Students must normally complete a total of 3.5 full-course equivalents (FCEs) as follows:
  - At least 2.0 FCEs, normally CTL 1000-level courses.
  - CTL1899H C&P Doctoral Proseminar in Curriculum & Pedagogy (0.5 FCE).
  - Students are expected to take CTL1000H Foundations of Curriculum & Pedagogy (0.5 FCE) if they did not complete it at the master's level.
  - One research methods course (0.5 FCE) from an approved course listing.
  - Additional courses may be required of some students.

- Comprehensive examination. The Curriculum and Pedagogy comprehensive exam is a 7,000-word paper usually written after students complete their coursework, and at the latest by the end of Year 4 of the PhD, before the candidacy deadline. The purpose of this exam is to demonstrate proficiency in major current theories and literature in the field of curriculum studies and is designed to ascertain whether a student has obtained the knowledge and skills to continue in the doctoral program. The exam has three possible outcomes: Pass, Pass-Contingent, and Fail. Students who receive the Pass-Contingent result will have the opportunity to address the reviewers' concerns. Students who fail the first time will have one further opportunity to rewrite the exam.

  - A thesis embodying the results of an original investigation, and a Doctoral Final Oral Examination on the content and implications of the thesis.

- Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, comprehensive examination, and thesis ethical review.

- Full-time PhD students must maintain full-time status throughout their program of study.

- Students must register continuously and pay the full-time fee until all degree requirements have been fulfilled.

- Students cannot transfer between the full-time and flexible-time PhD options.

Program Length

4 years

Time Limit

6 years

PhD Program (Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.

- A master's degree in education from a recognized university with a grade equivalent to a University of Toronto B+ or better and in the same area of specialization as proposed at the doctoral level is required. Further documentation may be required to establish equivalence.

- Applicants ordinarily have a minimum of two years' professional experience prior to applying.

- Applicants are required to submit, along with the application:
  - Their master's thesis or a sample of single-authored scholarly writing; for details about what constitutes an appropriate writing sample, visit the Curriculum and Pedagogy program web page.
  - Responses to Faculty questions in the online admissions application describing their intellectual interests and research concerns relevant to curriculum and pedagogy, reasons for wishing to take the program, previous qualifications and professional experiences, and articulating their research and professional interests, and future career goals.
  - Two letters of reference: one academic and one professional.

- Applicants to the flexible-time PhD option are accepted under the same admission requirements as applicants to the full-time PhD option. Applicants must demonstrate that they are currently employed and are active professionals engaged in activities relevant to their proposed program of study.

Program Length

8 years

Time Limit

8 years

CTL: Curriculum and Pedagogy MA, MEd, PhD Emphases

Emphasis: Arts in Education

The emphasis in Arts in Education offers students specialized courses in the areas of music and sound; drama, theatre, and performance; media and visual arts; and other courses that manifest social justice concerns reflected through the arts and cultural production. This emphasis brings together students interested in the arts; elementary and secondary arts specialist teachers and community-based educators interested in arts education in the broader community.
They are a vibrant community of scholars and graduate students who thrive on collegiality, intellectual debate, critical analyses, and creative inquiry.

- **Coursework.** From the following course list, MA, MEd, and PhD students must successfully complete 1.5 full-course equivalents (FCEs), which are counted towards the total FCEs required for the student's degree program:

- Upon successful completion of the emphasis requirements and the successful completion of the degree requirements, students may make a request to the C&P Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.

### Emphasis: Critical Studies in Curriculum and Pedagogy

The emphasis in Critical Studies in Curriculum and Pedagogy (CSCP) encourages a critical exploration of educational phenomena, within and beyond the scope of schools, from local place-based and transnational comparative perspectives. CSCP courses focus on social justice issues in education, including those related to environmental justice, globalization, colonialism, race, disability, gender, sexuality, conflict-peace, and cultural and linguistic differences.

- **Coursework.** From the following course list, MA, MEd, and PhD students must successfully complete 1.5 full-course equivalents (FCEs), which are counted towards the total FCEs required for the student's degree program:

- Upon successful completion of the emphasis requirements and the successful completion of the degree requirements, students may make a request to the C&P Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.

### Emphasis: Digital Technologies in Education

The emphasis in Digital Technologies in Education engages educators in an examination of technology and its effective use in educational contexts. Drawing on research from the fields of the learning sciences, psychology, diversity studies, and information and communication technology, learners will deepen their understanding of such topics as knowledge-building, computational thinking, gamification of learning, online knowledge communities, social media, immersive technologies (virtual reality, augmented reality), technology and assessment, and mobile learning.

- **Coursework.** From the following course list, MA, MEd, and PhD students must successfully complete 1.5 full-course equivalents (FCEs), which are counted towards the total FCEs required for the student's degree program:

- Upon successful completion of the emphasis requirements and the successful completion of the degree requirements, students may make a request to the C&P Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.

### Emphasis: Indigenous Education and Decolonization

The emphasis in Indigenous Education and Decolonization not only examines the complex and tangled histories of those on whose traditional lands OISE/University of Toronto is situated — the Ouendat (Wyandot-Huron), Onondowahgah (Seneca-) and the Misi-zaaiging (Mississaugas-Anishinaabek) nations — but also extends to lands across Turtle Island and Abya-Yala. Tkaronto, as a starting place to understand Indigenous Education and Decolonization more globally, is subject to the Dish With One Spoon Wampum Belt Covenant, an agreement between the Hodenosaunee and the Anishinaabe and allied nations to peaceably share and care for the resources around the Great Lakes regions.

This emphasis will provide an entry point into the knowledge systems that emerge from this particular land, with an emphasis on land itself as a teacher and a source of knowledge. The emphasis will be grounded on a decolonial pedagogy, with a commitment to anti-colonization and decolonization practices. Recognizing that these lands have existed, and still do exist, first and foremost in relationship to Indigenous people requires a critical consciousness and acknowledgement of whose lands we are now on as well as the historical and contemporary realities of those relationships. It is this understanding that forms the philosophical foundation upon which all of our courses position themselves within the emphasis.

- **Coursework.** From the following course list, MA, MEd, and PhD students must successfully complete 1.5 full-course equivalents (FCEs), which are counted towards the total FCEs required for the student's degree program:

- Upon successful completion of the emphasis requirements and the successful completion of the degree requirements, students may make a request to the C&P Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.
Emphasis: Science, Mathematics and Technology (SMT)

The emphasis in SMT is dedicated to exploring theory, practice, and contemporary issues pertaining to SMT education in diverse settings and contexts. They are a vibrant community of scholars and graduate students who thrive on collegiality, intellectual debate, critical analyses, and inquiry.

Drawing on research and practice, students will explore and critique SMT education while supporting research, curriculum development, teaching, and innovation. With strong connections to the SMT Centre, and the collaborative specialization in Engineering Education, students will engage deeply with topics such as science, technology engineering, and mathematics (STEM) education; SMT education in formal and informal settings; equity; inclusion; diversity; activism; and social and environmental justice.

- **Coursework.** From the following course list, MA, MEd, and PhD students must successfully complete 1.5 full-course equivalents (FCEs), which are counted towards the total FCEs required for the student's degree program:

- Upon successful completion of the emphasis requirements and the successful completion of the degree requirements, students may make a request to the CSTD Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.

Emphasis: Wellbeing

The purpose of education should be to move people toward improved connectedness and happiness, as well as to further accomplish and to develop greater opportunities for growth. The emphasis in Wellbeing provides hope and healing for individuals and society through innovative educational experiences by helping people deal well and wisely with issues in their lives and times. The mission is to provide critical educational experiences that awaken the best in the human spirit by addressing issues of public concern.

Critical issues investigated through coursework may be related to mental health, environmental issues, and destructive ethnocentric patterns of behaviour, as well as the wise and ethical use of technology. In addition, strategies for managing anxiety and depression, and for raising awareness of inequitable and discriminatory conditions are similar across differing contexts. Therefore, one must examine one's own life and circumstances and larger societal and institutional contexts before taking informed action for the greater good of all people.

The goal is agency through self-advocacy and advocacy for others. Through this process, one does not merely deconstruct but also reconstructs through learning about how one's belief structures and patterns may become more beneficial to oneself and to those around. More specifically, these holistic approaches involve various forms such as narrative/biography, phenomenology, meditation, mindfulness practice, body work, mental health, and conscious use of technology.

- **Coursework.** From the following course list, MA, MEd, and PhD students must successfully complete 1.5 full-course equivalents (FCEs), which are counted towards the total FCEs required for the student's degree program:

- Upon successful completion of the emphasis requirements and the successful completion of the degree requirements, students may make a request to the CSTD Program Administrator to have the emphasis noted on the student transcript. This request must be made before graduation. A course can only be applied to the requirements of a single emphasis.

ctl: Curriculum and Pedagogy MA, MEd, PhD Courses

Not all courses are offered every year. Please review the course schedule on the Registrar's Office and Student Experience website.

Master's Level

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>CTL1000H</td>
<td>Les fondements du curriculum et de la pédagogie</td>
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<tr>
<td>CTL1000H</td>
<td>Foundations of Curriculum &amp; Pedagogy</td>
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<tr>
<td>CTL1001H</td>
<td>Values and Schooling</td>
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<tr>
<td>CTL1005H</td>
<td>Language, Literacy, and the School Curriculum</td>
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<tr>
<td>CTL1011H</td>
<td>Anti-Oppression Education in School Settings</td>
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<tr>
<td>CTL1011H</td>
<td>L’éducation pour l’anti-oppression en milieu scolaire</td>
</tr>
<tr>
<td>CTL1016H</td>
<td>Cooperative Learning Research and Practice</td>
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<tr>
<td>CTL1018H</td>
<td>Introduction to Qualitative Inquiry in Curriculum, Teaching, and Learning</td>
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<tr>
<td>CTL1023H</td>
<td>Technology and Education: Critical Perspectives on Theory and Practice</td>
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<tr>
<td>CTL1024H</td>
<td>Poststructuralism and Education</td>
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<td>CTL1026H</td>
<td>Performed Ethnography</td>
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<td>CTL1027H</td>
<td>Facilitating Reflective Professional Development</td>
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<td>CTL1031H</td>
<td>Language, Culture, and Identity: Using the Literary Text in Teacher Development</td>
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<td>CTL1036H</td>
<td>Thoughtful Teaching and Practitioner Inquiry</td>
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<td>CTL1037H</td>
<td>Teacher Development: Comparative and Cross-Cultural Perspectives</td>
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<td>CTL1041H</td>
<td>Research Methods In Education</td>
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<td>Course Code</td>
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<tr>
<td>CTL1042H</td>
<td>Instrument Development in Education</td>
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<td>CTL1043H</td>
<td>Research Issues in Alternative Assessments</td>
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<td>CTL1046H</td>
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<td>CTL1047H</td>
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<td>CTL1048H</td>
<td>Qualitative Methodology: Challenges and Innovations</td>
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<td>CTL1049H</td>
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<td>CTL1060H</td>
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<td>CTL1062H</td>
<td>Performed Ethnography and Research Informed Theatre</td>
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<td>CTL1063H</td>
<td>Pedagogies of Solidarity</td>
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<td>CTL1064H</td>
<td>Applied Theatre and Performance in Sites of Learning</td>
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<td>CTL1065H</td>
<td>Gender, Sexuality, and Schooling</td>
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<tr>
<td>CTL1099H</td>
<td>Critical Approaches to Arts-Based Research</td>
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<tr>
<td>CTL1100H</td>
<td>Arts in Urban Schools (Exclusion: CTL5033H.)</td>
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<tr>
<td>CTL1104H</td>
<td>Play, Drama, and Arts Education</td>
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<tr>
<td>CTL1106H</td>
<td>Spirituality in Education</td>
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<td>CTL1110H</td>
<td>The Holistic Curriculum</td>
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<tr>
<td>CTL1117H</td>
<td>Liberatory Practices in Drama and Education</td>
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<tr>
<td>CTL1119H</td>
<td>Gaining Confidence in Mathematics: A Holistic Approach to Rebuilding Math Knowledge and Overcoming Anxiety</td>
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<tr>
<td>CTL1120H</td>
<td>Effective Teaching Strategies in Elementary Mathematics Education: Research and Practice</td>
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<tr>
<td>CTL1121H</td>
<td>Foundations of Wellness Through a Phenomenology of Practice (Exclusion: CTL5045H.)</td>
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<tr>
<td>CTL1122H</td>
<td>Exploring the Praxis of Environmental and Sustainability Education (Exclusion: CTL5027H.)</td>
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<tr>
<td>CTL1200H</td>
<td>Science in the School Curriculum</td>
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<tr>
<td>CTL1202H</td>
<td>Mathematics in the School Curriculum: Elementary</td>
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<tr>
<td>CTL1206H</td>
<td>Teaching and Learning Science</td>
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<tr>
<td>CTL1207H</td>
<td>Teaching and Learning about Science: Issues and Strategies in Science, Technology, Society, and Environment (STSE) Education</td>
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<tr>
<td>CTL1208H</td>
<td>Curriculum Issues in Science and Technology: An Historical Perspective</td>
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<td>CTL1209H</td>
<td>Current Issues in Science and Technology Education</td>
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<tr>
<td>CTL1211H</td>
<td>Action Research in Science, Mathematics, and Technology Education</td>
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<tr>
<td>CTL1214H</td>
<td>Equity Issues in Science Education</td>
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<tr>
<td>CTL1215H</td>
<td>Teaching and Learning About Science and Technology: Beyond Schools</td>
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<tr>
<td>CTL1217H</td>
<td>Integrating Science, Mathematics, and Technology Curricula</td>
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<tr>
<td>CTL1218H</td>
<td>Culture and Cognition in Mathematics, Science, and Technology Education</td>
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<td>CTL1219H</td>
<td>Making Secondary Mathematics Meaningful</td>
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<td>CTL1220H</td>
<td>Sociocultural Theories of Learning</td>
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<tr>
<td>CTL1221H</td>
<td>Education for Human Goals Local and Global: How's Science Education Helping?</td>
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<td>CTL1222H</td>
<td>Environmental Studies in Science, Mathematics, and Technology Education</td>
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<tr>
<td>CTL1224H</td>
<td>Curriculum Issues in Science Education (Exclusion: CTL1799H.)</td>
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<tr>
<td>CTL1225H</td>
<td>Mathematics Education: Linking Research and Practice (Exclusion: CTL5040H.)</td>
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<tr>
<td>CTL1304H</td>
<td>Cultural Studies and Education</td>
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<tr>
<td>CTL1306H</td>
<td>La recherche qualitative en éducation: bases théoriques et pratiques</td>
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<tr>
<td>CTL1306H</td>
<td>Qualitative Research Methods in Education: Concepts and Methods</td>
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<tr>
<td>CTL1307H</td>
<td>Identité collective et éducation minoritaire de langue française</td>
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<tr>
<td>CTL1307H</td>
<td>Identity Construction and Education of Minorities</td>
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<tr>
<td>CTL1309H</td>
<td>Les stéréotypes sexuels dans les programmes scolaires</td>
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<tr>
<td>CTL1312H</td>
<td>Democratic Citizenship Education: Comparative International Perspectives</td>
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<tr>
<td>CTL1313H</td>
<td>Gender Equity in the Classroom</td>
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<tr>
<td>CTL1316H</td>
<td>Global Education: Theory and Practice</td>
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<tr>
<td>CTL1318H</td>
<td>Teaching Conflict and Conflict Resolution</td>
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<tr>
<td>CTL1319H</td>
<td>Religious Education: Comparative and International Perspectives</td>
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<tr>
<td>CTL1320H</td>
<td>Introduction to Indigenous Land-centered Education: Historical and Contemporary Perspectives</td>
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<tr>
<td>CTL1321H</td>
<td>Indigenous Civilizations of Turtle Island: Language, Culture, and Identity (Prerequisite: CTL1320H or permission of instructor.)</td>
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<tr>
<td>CTL1322H</td>
<td>Literacies of Land: Narrative, Storying, and Literature</td>
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<td>Course Code</td>
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<td>CTL1325H</td>
<td>Citizenship Education, Pedagogy, and School Communities</td>
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<td>CTL1330H</td>
<td>Education and Peacebuilding in Conflict Zones: International Comparative Perspectives</td>
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<tr>
<td>CTL1331H</td>
<td>Land-Centred Approaches to Research and Community Engagement</td>
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<tr>
<td>CTL1332H</td>
<td>Introduction to Decolonization in Education (Exclusion: CTL5010H.)</td>
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<td>CTL1333H</td>
<td>Settler Colonialism and Pedagogies of Liberation (Exclusion: CTL5042H.)</td>
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<tr>
<td>CTL1350H</td>
<td>Exploring Children's and Youth's Digital Literacies in a Networked World (Exclusion: CTL5308H.)</td>
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<tr>
<td>CTL1400H</td>
<td>Classroom Adaptations and Instructional Strategies</td>
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<td>CTL1403H</td>
<td>Special Education and Social Representation of Difference</td>
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<td>CTL1407H</td>
<td>Rural Education and Social Reform in Canadian History, 1860–1960</td>
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<td>CTL1424H</td>
<td>Religion, Ideology, and Social Movement in the Development of North American Education</td>
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<td>CTL1426H</td>
<td>The History of Gender and Education in Canada</td>
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<td>CTL1427H</td>
<td>Commemorating Canada, 1800s–1900s</td>
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<tr>
<td>CTL1428H</td>
<td>Immigration and the Development of Canadian Education</td>
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<tr>
<td>CTL1429H</td>
<td>Ethnicity and the Development of Canadian Education</td>
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<tr>
<td>CTL1430H</td>
<td>Gendered Colonialisms, Imperialisms, and Nationalisms in History</td>
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<tr>
<td>CTL1448H</td>
<td>Popular Culture and the Social History of Education II</td>
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<tr>
<td>CTL1454H</td>
<td>The Battle Over History Education in Canada</td>
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<tr>
<td>CTL1602H</td>
<td>Introduction to Computers in Education</td>
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<tr>
<td>CTL1603H</td>
<td>Introduction to Knowledge Building</td>
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<tr>
<td>CTL1604H</td>
<td>Video/Multimedia Design</td>
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<tr>
<td>CTL1606H</td>
<td>Computers in the Curriculum</td>
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<tr>
<td>CTL1608H</td>
<td>The Design of Online Environments: Theory and Practice</td>
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<tr>
<td>CTL1609H</td>
<td>Perspectives on the Development of Computer-Mediated Communication in Education</td>
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<tr>
<td>CTL1611H</td>
<td>Computer-Mediated Distance Education</td>
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<tr>
<td>CTL1612H</td>
<td>The Virtual Library (Non-credit.)</td>
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<tr>
<td>CTL1615H</td>
<td>Introduction to AI in Education (Exclusion: CTL5052H.)</td>
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<tr>
<td>CTL1616H</td>
<td>Blended Learning: Issues and Applications</td>
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<tr>
<td>CTL1617H</td>
<td>Social Media and Education (Exclusion: CTL5015H.)</td>
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<tr>
<td>CTL1620H</td>
<td>Foundations of Online Teaching and Learning</td>
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<td>CTL1621H</td>
<td>Design and Development of Online Content, Media, and Artifacts</td>
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<tr>
<td>CTL1622H</td>
<td>Data Gathering and Assessment in Online Courses</td>
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<tr>
<td>CTL1623H</td>
<td>Immersive Technology in Education (Exclusion: CTL5047H.)</td>
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<tr>
<td>CTL1624H</td>
<td>Instructional Design: Beyond the Lecture (Exclusion: CTL5016H.)</td>
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<tr>
<td>CTL1625H</td>
<td>Digital Media and Practices for a Knowledge Society (Exclusion: CTL5036H.)</td>
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<tr>
<td>CTL1797H</td>
<td>Practicum in Curriculum &amp; Pedagogy: Master's Level</td>
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<tr>
<td>CTL1798H</td>
<td>Individual Reading and Research in Curriculum &amp; Pedagogy: Master's Level</td>
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<tr>
<td>CTL5000H</td>
<td>Special Topics in C&amp;P: Master's Level</td>
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<tr>
<td>CTL5001H to CTL5002H</td>
<td>Special Topics in Curriculum: Master's Level</td>
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<tr>
<td>CTL5010H to CTL5070H</td>
<td>Special Topics in Curriculum: Master's Level</td>
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<tr>
<td>CTL5700H to CTL5734H</td>
<td>Special Topics in Teaching</td>
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**Doctoral Level**

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CTL1808H</td>
<td>Curriculum Innovation in Teacher Education</td>
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<tr>
<td>CTL1809H</td>
<td>Narrative and Story in Research and Professional Practice (RM)</td>
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<tr>
<td>CTL1811H</td>
<td>Writing Research/Research Writing: Moving from Idea to Reality</td>
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<tr>
<td>CTL1817H</td>
<td>Current Issues in Teacher Education</td>
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<tr>
<td>CTL1818H</td>
<td>Arts in Education: Concepts, Contexts, and Frameworks</td>
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<tr>
<td>CTL1822H</td>
<td>Urban School Research: Youth, Pedagogy, and the Arts</td>
</tr>
<tr>
<td>CTL1825H</td>
<td>The Teacher as a Contemplative Practitioner</td>
</tr>
</tbody>
</table>
CTL: Language and Literacies Education Overview

Program Description

The Language and Literacies Education program investigates questions about the relationships of literacies in language and language in literacies across communities, societies, instructional environments, and informal learning settings.

Language and Literacies Education courses address current issues in the study of applied linguistics and literacies, such as:

- The learning, teaching, and use of additional, Indigenous, official, international/heritage, and sign languages and literacies;
- Curriculum, instruction, and assessment related to the development of first and additional languages and K–12 literacy skills;
- The development of bilingual, multilingual, and translinguistic abilities;
- Language and literacy education policies and planning;
- Pedagogy oriented to multiliteracies development, including early literacy and adolescent reading, writing and oral language development, and children’s literature across the curriculum;
- Social justice issues related to plurilingualism and cultural and linguistic diversity; and
- Pedagogical implications of the fact that language and literacy are infused into all aspects of learning in contexts characterized by linguistic diversity.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Admission requires an appropriate bachelor's degree, with the equivalent of a University of Toronto mid-B or better in the final year, in a relevant discipline or professional program. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.
- Ordinarily, applicants should have teacher certification and at least one year of relevant successful professional experience prior to applying.
- Responses to Faculty questions in the online admissions application: for detailed information on presenting research interests while answering the Faculty questions, applicants should visit the Language and Literacies in Education MA degree program web page.

Program Requirements

- **Coursework.** Students must complete 4.0 full-course equivalents (FCEs) or eight half courses as follows.
  - A minimum of 2.0 FCEs in CTL 3000-level courses within the LLE program including CTL3001H Research Colloquium in Language and Literacies Education (0.5 FCE).
  - A research methods course relevant to the topic of the thesis (0.5 FCE). Any of the following courses can fulfill this requirement: CTL1018H, CTL1041H, CTL1306H, CTL3033H, CTL3807H, APD1296H, APD3202H, JOI1287H, JOI1288H, JOI3228H, or SJE1905H.
  - Students wishing to propose an alternative course to fulfill one of the LLE course requirements will be required to obtain the approval of both the LLE graduate program coordinator and either their faculty advisor or their thesis supervisor.
  - Additional courses may be required of some applicants.
- **Thesis.**
- Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, and thesis ethical review.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
10 sessions part-time

Time Limit

3 years full-time;
6 years part-time
CTL: Language and Literacies Education

MEd

Master of Education

The Master of Education (MEd) degree program can be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies, which specify an appropriate bachelor’s degree from a recognized university, with the equivalent of a University of Toronto mid-B or better in the final year. Applicants must also satisfy the Department of Curriculum, Teaching and Learning’s additional admission requirements stated below.
- Ordinarily, applicants should have teacher certification and at least one year of relevant successful professional experience prior to applying.
- Responses to Faculty questions in the online admissions application: applicants should state the reasons they wish to study language and literacies in education at the graduate level. For detailed information on answering the Faculty questions and completing the application, applicants should visit the Language and Literacies in Education MEd degree program web page.

Program Requirements

- **Coursework.** The MEd program consists of 5.0 full-course equivalents (FCEs) including:
  - A minimum of 2.5 FCEs in CTL 3000-level courses.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F);
10 sessions part-time

Time Limit

3 years full-time;
6 years part-time

**CTL: Language and Literacies Education MEd; Field: Language Teaching**

Master of Education (Field: Language Teaching)

Within the existing Master of Education (MEd) degree program, the field in Language Teaching includes a structured focus on language teaching foundations. Language Teaching integrates an engagement with scholarly research in Language and Literacies Education with a commitment to excellence in teaching to support graduate students as novice language teachers. Students pursuing this field will graduate with: (a) a solid theoretical and intellectual grounding in LLE research; (b) a course-based, practitioner focus on language teaching foundations; and (c) gained practical experience in a language-education context through a required practicum.

This field is only available on a full-time basis. Priority will be given to novice teachers with less than a year of teaching experience. This field will not lead to Teaching English as a Second Language (TESL) Ontario certification nor to the Certificate of Qualification and Registration with the Ontario College of Teachers.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies, which specify an appropriate bachelor’s degree from a recognized university, with the equivalent of a University of Toronto mid-B or better in the final year. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.
- Normally, applicants should have at least one year of professional experience prior to applying. Previous classroom teaching experience is not a requirement.
- Responses to Faculty questions in the online admissions application: applicants should state the reasons they wish to study language and literacies in education at the graduate level. For detailed information on answering the Faculty questions and completing the application, applicants should visit the Language and Literacies in Education MEd Field in Language Teaching degree program web page.

Program Requirements

- **Coursework.** Within the MEd program, the Language Teaching field consists of 5.0 full-course equivalents (FCEs) as follows.
  - All students in this field must take the following three courses (1.5 FCEs):
    - CTL3002H Second Language Teaching Methodologies
    - CTL3010H Second Language Learning
    - CTL3796H Practicum in Language and Literacies Education: Master's Level (Credit/No Credit)
  - Students must then choose any two of the following courses (1.0 FCE):
    - CTL3000H Foundations of Bilingual and Multicultural Education
    - CTL3003H Planning and Organizing the Second Language Curriculum
    - CTL3008H Critical Pedagogy, Language, and Cultural Diversity
    - CTL3013H Language Assessment
    - CTL3020H Writing in a Second Language
    - CTL3039H Academic English Research and Acquisition (Credit/No Credit)
    - CTL3101H Language Awareness for Language Educators
  - The remaining 2.5 FCEs can be elective courses taken towards the requirements of a collaborative specialization if applicable, or courses offered within the Department of Curriculum, Teaching and Learning or other departments at OISE or the University of Toronto.
**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.
- An appropriate master's degree with a grade equivalent to a University of Toronto B+ or better from a recognized university is required.
- Admission is contingent upon satisfactory completion of a master's thesis, or the equivalent in the form of a scholarly piece of writing.
- Ordinarily, applicants will have a minimum of two years of relevant professional experience prior to applying.
- Responses to Faculty questions in the online admissions application: applicants should state the reasons they wish to study language and literacies in education at the graduate level. For detailed information on answering the Faculty questions and completing the application, applicants should visit the **Language and Literacies in Education PhD degree program web page**.

**Program Requirements**

- **Coursework.** Students must complete 3.5 to 4.0 full-course equivalents (FCEs) depending on previous experience and academic qualifications, as follows:
  - A minimum of 2.0 FCEs within the LLE program, including CTL3001H Research Colloquium in Language and Literacies Education (0.5 FCE) and CTL3899H Proseminar in Language and Literacies Education (0.5 FCE), if not previously taken at the master's level. If CTL3001H or CTL3899H was taken at the master's level, students are not permitted to take it again and should substitute it with another LLE program course (0.5 FCE).
  - A research methods course relevant to the topic of the thesis (0.5 FCE). Any of the following courses can fulfill this requirement: CTL1018H, CTL1041H, CTL1306H, CTL3033H, CTL3807H, APD1296H, APD3202H, JOI1287H, JOI1288H, JOI3228H, or SJE1905H.
  - A student wishing to propose an alternative course to fulfill one of the LLE course requirements must obtain the approval of the LLE program coordinator and either their faculty advisor or thesis supervisor.
- **Comprehensive examination**, which consists of two parts. 1) The first is longer, untimed, and generally related to the area of study that doctoral students intend to pursue for their dissertation. 2) The second is timed (two weeks for full-time PhD students, four weeks for flexible-time PhD students) and is designed to assess students' breadth of knowledge in LLE. Students are provided six prompts addressing a wide range of questions related to LLE (theory, major research domains, research methods); they choose one and write a response within the specified timeframe. The Comprehensive Exam is offered twice per year (winter and summer). While students are encouraged to initiate the process as close to the end of their coursework as possible, they must successfully pass the exam by the end of the Year 3 (full-time) or Year 4 (flexible-time). Papers are evaluated as Pass, Revise and Resubmit, or Fail. Students who receive a Fail may attempt the exam one more time.
- A **thesis** embodying the results of an original investigation, and a **Doctoral Final Oral Examination** on the content and implications of the thesis.
- Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, comprehensive examination, and thesis ethical review.
- Full-time PhD students must maintain full-time status throughout their program of study.
- Students must register continuously and pay the full-time fee until all degree requirements have been fulfilled.
- Students cannot transfer between the full-time and flexible-time PhD options.

**Program Length**

- 4 years

**Time Limit**

- 6 years

**PhD Program (Flexible-Time)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Curriculum, Teaching and Learning's additional admission requirements stated below.
- An appropriate master's degree with a grade equivalent to a University of Toronto B+ or better from a recognized university is required.
- Admission is contingent upon satisfactory completion of a master's thesis, or the equivalent in the form of a scholarly piece of writing.
- Ordinarily, applicants will have a minimum of two years of relevant professional experience prior to applying.
Responses to Faculty questions in the online admissions application: applicants should state the reasons they wish to study language and literacies in education at the graduate level. For detailed information on answering the Faculty questions and completing the application, applicants should visit the Language and Literacies in Education PhD degree program web page.

Applicants must demonstrate that they are currently employed and are active professionals engaged in activities relevant to their proposed program of study.

Program Requirements

Coursework. Students must complete 3.5 to 4.0 full-course equivalents (FCEs) depending on previous experience and academic qualifications, as follows:

- A minimum of 2.0 FCEs within the LLE program, including CTL3001H Research Colloquium in Language and Literacies Education (0.5 FCE) and CTL3899H Proseminar in Language and Literacies Education (0.5 FCE), if not previously taken at the master's level. If CTL3001H or CTL3899H was taken at the master's level, students are not permitted to take it again and should substitute it with another LLE program course (0.5 FCE).

- A research methods course relevant to the topic of the thesis (0.5 FCE). Any of the following courses can fulfill this requirement: CTL1018H, CTL1041H, CTL1306H, CTL3033H, CTL3000H, CTL3001H, CTL3002H, CTL3003H, CTL3004H, CTL3007H, CTL3008H, CTL3010H, CTL3011H, CTL3013H, CTL3015H, CTL3020H, CTL3024H, or APD1296H.

- A student wishing to propose an alternative course to fulfill one of the LLE course requirements will be required to obtain the approval of the LLE program coordinator and either their faculty advisor or thesis supervisor.

Comprehensive examination, which consists of two parts. 1) The first is longer, untimed, and generally related to the area of study that doctoral students intend to pursue for their dissertation. 2) The second is timed (two weeks for full-time PhD students, four weeks for flexible-time PhD students) and is designed to assess students’ breadth of knowledge in LLE. Students are provided six prompts addressing a wide range of questions related to LLE (theory, major research domains, research methods); they choose one and write a response within the specified timeframe. The Comprehensive Exam is offered twice per year (winter and summer). While students are encouraged to initiate the process as close to the end of their coursework as possible, they must successfully pass the exam by the end of the Year 3 (full-time) or Year 4 (flexible-time). Papers are evaluated as Pass, Revise and Resubmit, or Fail. Students who receive a Fail may attempt the exam one more time.

A thesis embodying the results of an original investigation, and a Doctoral Final Oral Examination on the content and implications of the thesis.

Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, comprehensive examination, and thesis ethical review.

Students must register continuously until all degree requirements have been fulfilled. They must register full-time during the first four years and may continue as part-time thereafter, with their department's approval.

Students cannot transfer between the full-time and flexible-time PhD options.

Program Length

7 years

Time Limit

8 years

CTL: Language and Literacies Education MA, MEd, PhD Courses

Not all courses are offered every year. Please review the course schedule on the Registrar's Office and Student Experience website.

Master's Level

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>APD1251H</td>
<td>Reading in a Second Language</td>
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<tr>
<td>APD1296H</td>
<td>Assessing School-Aged Language Learners</td>
</tr>
<tr>
<td>CTL3000H</td>
<td>Foundations of Bilingual and Multicultural Education</td>
</tr>
<tr>
<td>CTL3001H</td>
<td>Research Colloquium in Language and Literacies Education</td>
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<td>CTL3002H</td>
<td>Second Language Teaching Methodologies</td>
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<tr>
<td>CTL3003H</td>
<td>Planning and Organizing the Second Language Curriculum</td>
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<td>CTL3004H</td>
<td>Language Awareness and its Role in Teacher Development</td>
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<td>CTL3007H</td>
<td>Discourse Analysis (Exclusion: CTL3200H.)</td>
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<td>CTL3008H</td>
<td>Critical Pedagogy, Language, and Cultural Diversity</td>
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<td>CTL3010H</td>
<td>Second Language Learning</td>
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<td>CTL3011H</td>
<td>Cognitive, Sociolinguistic, and Sociopolitical Orientations in Bilingual Education Research (Exclusion: CTL3201H.)</td>
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<td>CTL3013H</td>
<td>Language Assessment</td>
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<td>CTL3015H</td>
<td>Language and Literacies Education in Multilingual Contexts</td>
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<td>Language Planning and Policy (Exclusion: CTL3202H.)</td>
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<td>Writing in a Second Language</td>
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<td>CTL3024H</td>
<td>Language Teacher Education</td>
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<td>CTL3025H</td>
<td>Educational Sociolinguistics</td>
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<tr>
<td>CTL3026H</td>
<td>Pragmatics in Language Education</td>
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<tr>
<td>CTL3028H</td>
<td>Literacy in Elementary Education</td>
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<td>Course Code</td>
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<tr>
<td>CTL3029H</td>
<td>Children's Literature as a Foundation of Literate Behaviour Across the Curriculum</td>
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<tr>
<td>CTL3030H</td>
<td>Theory and Practice in Elementary Literacy Instruction</td>
</tr>
<tr>
<td>CTL3031H</td>
<td>Children's Literature Within a Multicultural Context</td>
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<tr>
<td>CTL3032H</td>
<td>Teaching Writing in the Classroom</td>
</tr>
<tr>
<td>CTL3033H</td>
<td>Literary Research Methodologies</td>
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<tr>
<td>CTL3034H</td>
<td>New Literacies: Making Multiple Meanings</td>
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<td>CTL3035H</td>
<td>Critical Literacy in Action</td>
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<tr>
<td>CTL3036H</td>
<td>Expressive Writing: Practice and Pedagogy</td>
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<td>CTL3037H</td>
<td>Biography in Educational Contexts</td>
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<td>CTL3038H</td>
<td>Play, Language, and Literacy in Primary Classrooms (Exclusion: CTL5302H.)</td>
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<tr>
<td>CTL3039H</td>
<td>Academic English Research and Acquisition (Credit/No Credit. Exclusion: CTL5305H.)</td>
</tr>
<tr>
<td>CTL3040H</td>
<td>The Education of Students of Refugee Background in Canada and Beyond (Exclusion: CTL5310H.)</td>
</tr>
<tr>
<td>CTL3041H</td>
<td>Theories in Vocabulary Teaching and Learning (Exclusion: CTL5314H.)</td>
</tr>
<tr>
<td>CTL3042H</td>
<td>Complexity Theories and Language Education (Exclusion: CTL5313H.)</td>
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<tr>
<td>CTL3100H</td>
<td>Communication and Second Language Learning in the Workplace</td>
</tr>
<tr>
<td>CTL3101H</td>
<td>Language Awareness for Language Educators</td>
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<tr>
<td>CTL3200H</td>
<td>Analyse du discours (Exclusion: CTL3007H.)</td>
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<tr>
<td>CTL3201H</td>
<td>Bilinguisme et éducation (Exclusion: CTL3011H.)</td>
</tr>
<tr>
<td>CTL3202H</td>
<td>Politique et aménagement linguistique (Exclusion: CTL3018H.)</td>
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<tr>
<td>CTL3203H</td>
<td>Les approches pédagogiques plurilingues et pluriculturelles en éducation (Exclusion: CTL5311H.)</td>
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<td>CTL3204H</td>
<td>L'immersion française: enseignement et recherches / French Immersion: Teaching and Research (Exclusion: CTL5306H. Prerequisite: successful completion of the OISE French Proficiency Test administered by OISE's Continuing and Professional Learning Office.)</td>
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<tr>
<td>CTL3410H</td>
<td>Schooling in the Movies: Education as Reflected in Hollywood Films</td>
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<td>CTL3411H</td>
<td>Cinema and Historical Literacy</td>
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<tr>
<td>CTL3412H</td>
<td>Shakespeare and Cultural Literacy</td>
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<td>CTL3413H</td>
<td>Reading Cinema and Cultural Identity</td>
</tr>
<tr>
<td>CTL3414H</td>
<td>Historical Literacy and Popular Literacy</td>
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<tr>
<td>CTL3796H</td>
<td>LLE Practicum for MEd Field in Language Teaching</td>
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<tr>
<td>CTL3797H</td>
<td>Practicum in Language and Literacies Education: Master's Level</td>
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<tr>
<td>CTL3798H</td>
<td>Individual Reading and Research in Language and Literacies Education: Master's Level</td>
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<tr>
<td>CTL3811H</td>
<td>Critical Perspectives on Language, Racism, and Settler-Colonialism (Exclusion: CTL6301H.)</td>
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<td>CTL3899H</td>
<td>Proseminar in Language and Literacies Education Program: Master's Level</td>
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<tr>
<td>CTL5300H to CTL5320H</td>
<td>Special Topics in Language and Literacies Education Program: Master's Level</td>
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<tr>
<td>CRE1001H</td>
<td>Séminaire d'études : Éducation, francophonies et diversité</td>
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<tr>
<td>JTE1952H</td>
<td>Language, Culture, and Education</td>
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**Doctoral Level**

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<tr>
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<tr>
<td>CTL3805H</td>
<td>Multilingualism and Plurilingualism</td>
</tr>
<tr>
<td>CTL3806H</td>
<td>Sociocultural Theory and Second Language Learning</td>
</tr>
<tr>
<td>CTL3807H</td>
<td>Second Language Education Research Methods (RM)</td>
</tr>
<tr>
<td>CTL3808H</td>
<td>The Role of Instruction in Second Language Acquisition</td>
</tr>
<tr>
<td>CTL3899H</td>
<td>Proseminar in Language and Literacies Education</td>
</tr>
<tr>
<td>CTL3998H</td>
<td>Individual Reading and Research in Language and Literacies Education: Doctoral Level</td>
</tr>
<tr>
<td>CTL3999H</td>
<td>Special Topics in Language and Literacies Education: Doctoral Level</td>
</tr>
<tr>
<td>CTL6300H to CTL6310H</td>
<td>Special Topics in Language and Literacies Education Program: Doctoral Level</td>
</tr>
</tbody>
</table>
CTL: Teaching MT

Master of Teaching

Program Description

This program involves two years of full-time study leading to a Master of Teaching (MT) degree. Upon successful completion of this program, students will be recommended to the Ontario College of Teachers for an Ontario Teachers’ Certificate of Qualification, which qualifies them to teach in either the Primary and Junior (P/J) divisions, the Junior and Intermediate (J/I) divisions, or the Intermediate and Senior (I/S) divisions of Ontario schools.

The MT program offers students a unique educational opportunity, which combines teacher qualification with advanced study of educational theory and an opportunity to conduct research. The program provides students with a strong grounding in curriculum; human development; ethics and educational law; equity diversity and inclusion; Indigenous education; educational technology; instructional planning; instructional design; and learning theory. Students have three practice teaching experiences in which they develop their skills as teachers and extend the theoretical and practical knowledge they acquired in the academic portion of the program.

The program includes: formal coursework, teaching and research seminars, and practice teaching.

The 20-month program is normally completed on a full-time basis in 5 terms:

- Terms 1 and 2 (Fall and Winter sessions [September to April])
- Term 3 (Summer session [May to August])
- Terms 4 and 5 (Fall and Winter sessions [September to April]).

Registration in Terms 4 and 5 is contingent upon successful completion of all courses in Terms 1, 2, and 3 and two successful placements.

Applicants must select one of the following teaching divisions:

- Primary/Junior (junior kindergarten to grade 6)
- Junior/Intermediate (grades 4 to 10)
- Intermediate/Senior (grades 7 to 12).

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Curriculum, Teaching and Learning’s additional admission requirements stated below.
- Applicants must have an appropriate bachelor's degree with the equivalent of a University of Toronto mid-B or better in the final year.
- Applications are submitted to the specific division(s) of interest (i.e., Primary/Junior, Junior/Intermediate, or Intermediate/Senior). Applicants are required to respond to three questions in which they describe significant teaching and/or teaching-related experiences that they have had, especially with groups of learners. With reference to these experiences, applicants should identify insights gained about teaching and learning, and explain how, based on these insights, they might contribute to the education of students in today's schools. In their resumé, applicants are requested to list, in chart form, the extent of their teaching experiences.

- Applicants to the Junior/Intermediate (J/I) division within the Elementary field must select one subject specialization, known as "teachable" or "teaching subject." Before applying to the J/I division, applicants must ensure they have the required number of prerequisite courses for the teaching subject. The prerequisites for teaching subjects in the J/I division are a minimum of 3.0 full-course equivalents (FCEs) for the teaching subject from a recognized university. Note that the prerequisite for French (Second Language) is 5.0 FCEs. For more details about subject specializations and their prerequisites, visit the MT program website.

- Applicants to the Intermediate/Senior (I/S) division within the Secondary field must have two subject specializations, known as "teachable" or "teaching subject", of which one subject is selected as their first subject specialization and one as their second subject specialization. Before applying to the I/S division, applicants must ensure they have the required number of prerequisite courses for the teaching subject. The prerequisites are a minimum of 6.0 FCEs in the first teaching subject and a minimum of 3.0 FCEs in the second teaching subject from a recognized university. Note that the prerequisites for the teaching subjects French (Second Language), Science-Biology, Science-Chemistry, Science-Physics, and Science-General are 6.0 FCEs regardless of whether these teaching subjects are first or second subject specializations. For more details about subject specializations and their prerequisites, visit the MT program website.

- Not all eligible applicants are guaranteed admission.
- A police record check is required in both Years 1 and 2 as part of the practice teaching experiences, as well as any necessary vaccination requirements that placement sites may have in place.

Program Requirements

- Coursework. Students must complete 11.0 full-course equivalents (FCEs) consisting of:
  - 8.0 FCEs: 16 (or equivalent) compulsory core courses; Primary/Junior and Junior/Intermediate divisions include quarter-credit courses.
  - 1.0 FCE: 2 elective courses.
  - 2.0 FCEs: 3 practice teaching courses: CTL7080H, CTL7081H, and CTL7090Y. There is one placement per course, totalling three teaching placements (two shorter 0.5 FCE placements and one longer 1.0 FCE placement).
- On successful completion, students receive the MT degree and a recommendation to the Ontario College of Teachers for an Ontario Teachers’ Certificate of Qualification.
- Eligible students registered in the Primary/Junior division who, in addition to an Ontario Teachers’ Certificate of Qualification, wish to pursue the French as a Second Language (FSL) qualification, must successfully complete the following requirements:
  - Pass an OISE French Proficiency Test prior to completing the following two courses.
  - Complete both CTL7200H Curriculum and Teaching in French as a Second Language — Primary/Junior and CTL3204H L’immersion française: enseignement et recherches within the elective space.
Complete one practicum placement in a French classroom following successful completion of the French Proficiency Test and both CTL7200H and CTL3204H.

- Advanced standing is not granted in this program.
- Students registered in the Primary/Junior and Junior/Intermediate divisions must successfully complete the non-credit seminar course CTL7100H Mathematics Concepts for Elementary Teacher Candidates (0.0 FCE), also known as MathPlus, during their first session of registration.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

**CTL: Teaching MT Courses**

**Primary/Junior Division (Junior Kindergarten to Grade 6)**

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTL7000H</td>
<td>Curriculum and Teaching in Literacy</td>
</tr>
<tr>
<td>CTL7001H</td>
<td>Educational Professionalism, Ethics, and Law</td>
</tr>
<tr>
<td>CTL7002H</td>
<td>Curriculum and Teaching in Mathematics</td>
</tr>
<tr>
<td>CTL7006H</td>
<td>Educational Research 1</td>
</tr>
<tr>
<td>CTL7008H</td>
<td>Introduction to Special Education and Mental Health</td>
</tr>
<tr>
<td>CTL7009H</td>
<td>Anti-Discriminatory Education</td>
</tr>
<tr>
<td>CTL7011H</td>
<td>Child and Adolescent Development and Learning</td>
</tr>
<tr>
<td>CTL7014H</td>
<td>Fundamentals of Teaching and Learning</td>
</tr>
<tr>
<td>CTL7015H</td>
<td>Educational Research 2</td>
</tr>
<tr>
<td>CTL7016H</td>
<td>Integrating Technology into the Classroom: Issues and Activities</td>
</tr>
<tr>
<td>CTL7018H</td>
<td>Curriculum and Teaching in Science and Environmental Education</td>
</tr>
<tr>
<td>CTL7019H</td>
<td>Supporting English Language Learners</td>
</tr>
<tr>
<td>CTL7024H</td>
<td>Curriculum and Teaching in Social Studies and Indigenous Education</td>
</tr>
<tr>
<td>CTL7080H</td>
<td>Practice Teaching Year 1 (Part 1) (Credit/No Credit)</td>
</tr>
<tr>
<td>CTL7081H</td>
<td>Practice Teaching Year 1 (Part 2) (Credit/No Credit)</td>
</tr>
<tr>
<td>CTL7082H</td>
<td>Practice Teaching Year 2 (Part 1) (Credit/No Credit)</td>
</tr>
<tr>
<td>CTL7083H</td>
<td>Practice Teaching Year 2 (Part 2) (Credit/No Credit)</td>
</tr>
<tr>
<td>CTL7084H</td>
<td>Issues in Numeracy (0.25 FCE; exclusion: CTL7010H)</td>
</tr>
<tr>
<td>CTL7085H</td>
<td>Issues in Literacy (0.25 FCE; exclusion: CTL7010H)</td>
</tr>
<tr>
<td>CTL7086H</td>
<td>Curriculum and Teaching in Music and Dance (0.25 FCE)</td>
</tr>
<tr>
<td>CTL7087H</td>
<td>Curriculum and Teaching in Drama and Dance (0.25 FCE)</td>
</tr>
<tr>
<td>CTL7088H</td>
<td>Curriculum and Teaching in Visual Arts (0.25 FCE)</td>
</tr>
<tr>
<td>CTL7089H</td>
<td>Curriculum and Teaching in Physical Education (0.25 FCE)</td>
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<tr>
<td>CTL7100H</td>
<td>Mathematics Concepts for Elementary Teacher Candidates* (Non-credit)</td>
</tr>
<tr>
<td>CTL7200H</td>
<td>Curriculum and Teaching in French as a Second Language — Primary/Junior (Prerequisite: successful completion of the OISE French Proficiency Test administered by OISE’s Continuing and Professional Learning Office.)</td>
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</tbody>
</table>

*Students registered in the Primary/Junior division must successfully complete the non-credit seminar course CTL7100H Mathematics Concepts for Elementary Teacher Candidates, also known as MathPlus, during their first session of registration.

Elective Courses

- Plus 1.0 FCE: two elective courses.
- Eligible students registered in the Primary/Junior division who, in addition to an Ontario Teachers’ Certificate of Qualification, wish to pursue the French as a Second Language (FSL) qualification, must successfully complete the following requirements:
  - Pass an OISE French Proficiency Test prior to completing the following two courses.
  - Complete both CTL7200H Curriculum and Teaching in French as a Second Language — Primary/Junior and CTL3204H L’immersion française: enseignement et recherches within the elective space.
  - Complete one practicum placement in a French classroom following successful completion of the French Proficiency Test and both CTL7200H and CTL3204H.

**Junior/Intermediate Division (Grade 4 to Grade 10)**

Core Courses

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<tr>
<td>CTL7000H</td>
<td>Curriculum and Teaching in Literacy</td>
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<tr>
<td>CTL7001H</td>
<td>Educational Professionalism, Ethics, and Law</td>
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<tr>
<td>Course Code</td>
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<td>-------------</td>
</tr>
<tr>
<td>CTL7002H</td>
<td>Curriculum and Teaching in Mathematics</td>
</tr>
<tr>
<td>CTL7006H</td>
<td>Educational Research 1</td>
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<td>CTL7008H</td>
<td>Introduction to Special Education and Mental Health</td>
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<td>Anti-Discriminatory Education</td>
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<td>CTL7011H</td>
<td>Child and Adolescent Development and Learning</td>
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<td>CTL7013H</td>
<td>Arts in Education</td>
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<tr>
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<td>Fundamentals of Teaching and Learning</td>
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<td>Educational Research 2</td>
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<tr>
<td>CTL7016H</td>
<td>Integrating Technology into the Classroom: Issues and Activities</td>
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<td>Curriculum and Teaching in Science and Environmental Education</td>
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<td>CTL7019H</td>
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<td>Curriculum and Teaching in Social Studies and Indigenous Education</td>
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<tr>
<td>CTL7080H</td>
<td>Practice Teaching Year 1 (Part 1) (Credit/No Credit)</td>
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<td>Practice Teaching Year 1 (Part 2) (Credit/No Credit)</td>
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<td>Practice Teaching Year 2 (Part 1) (Credit/No Credit)</td>
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<td>CTL7083H</td>
<td>Practice Teaching Year 2 (Part 2) (Credit/No Credit)</td>
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<td>CTL7084H</td>
<td>Issues in Numeracy (0.25 FCE; exclusion: CTL7010H)</td>
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<td>Issues in Literacy (0.25 FCE; exclusion: CTL7010H)</td>
</tr>
<tr>
<td>CTL7100H</td>
<td>Mathematics Concepts for Elementary Teacher Candidates* (Non-credit)</td>
</tr>
</tbody>
</table>

*Students registered in the Junior/Intermediate division must successfully complete the non-credit seminar course CTL7100H Mathematics Concepts for Elementary Teacher Candidates, also known as MathPlus, during their first session of registration.

### Elective Courses

- Plus 0.5 FCE: one subject specialization course selected from CTL7050H to CTL7060H.
- Plus 1.0 FCE: two elective courses.

For Junior/Intermediate certification, students take **one subject specialization course** in Year 2 (the list of subject specializations is subject to change):

### Intermediate Subject Specialization Courses for Junior/Intermediate Division Certification

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTL7050H</td>
<td>Intermediate Teaching Subject — English (First Language)</td>
</tr>
<tr>
<td>CTL7051H</td>
<td>Intermediate Teaching Subject — French (Second Language)</td>
</tr>
<tr>
<td>CTL7052H</td>
<td>Intermediate Teaching Subject — Geography</td>
</tr>
<tr>
<td>CTL7053H</td>
<td>Intermediate Teaching Subject — Health and Physical Education</td>
</tr>
<tr>
<td>CTL7054H</td>
<td>Intermediate Teaching Subject — History</td>
</tr>
<tr>
<td>CTL7055H</td>
<td>Intermediate Teaching Subject — Mathematics</td>
</tr>
<tr>
<td>CTL7056H</td>
<td>Intermediate Teaching Subject — Music-Instrumental</td>
</tr>
<tr>
<td>CTL7057H</td>
<td>Intermediate Teaching Subject — Music-Vocal</td>
</tr>
<tr>
<td>CTL7058H</td>
<td>Intermediate Teaching Subject — Science-General</td>
</tr>
<tr>
<td>CTL7059H</td>
<td>Intermediate Teaching Subject — Visual Arts</td>
</tr>
<tr>
<td>CTL7060H</td>
<td>Intermediate Teaching Subject — Drama</td>
</tr>
</tbody>
</table>

### Prerequisites

Before applying to the Junior/Intermediate division, applicants must ensure they have the required number of prerequisite courses for the teaching subjects. See the admission requirements above for details or visit the [MT program website](#) for subject specializations and their required prerequisites.

### Intermediate/Senior Division (Grade 7 to Grade 12)

### Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTL7006H</td>
<td>Educational Research 1</td>
</tr>
<tr>
<td>CTL7007H</td>
<td>Authentic Assessment</td>
</tr>
<tr>
<td>CTL7008H</td>
<td>Introduction to Special Education and Mental Health</td>
</tr>
<tr>
<td>CTL7009H</td>
<td>Anti-Discriminatory Education</td>
</tr>
<tr>
<td>CTL7011H</td>
<td>Child and Adolescent Development and Learning</td>
</tr>
<tr>
<td>CTL7014H</td>
<td>Fundamentals of Teaching and Learning</td>
</tr>
<tr>
<td>CTL7015H</td>
<td>Educational Research 2</td>
</tr>
<tr>
<td>CTL7016H</td>
<td>Integrating Technology into the Classroom: Issues and Activities</td>
</tr>
</tbody>
</table>
### Elective Courses

- Plus 1.0 FCE: first subject specialization course selected from CTL7020Y to CTL7041Y; see full course list below.
- Plus 1.0 FCE: second subject specialization course selected from CTL7020Y to CTL7041Y; see full course list below.
- Plus 1.0 FCE: two elective courses.

### Intermediate/Senior Specialization Courses

The Intermediate/Senior students must have two subject specializations. Students must select one subject specialization from the following list as their first subject specialization and one as their second subject specialization (the list of subject specializations is subject to change).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTL7020Y</td>
<td>Curriculum and Teaching in English — Intermediate/Senior</td>
</tr>
<tr>
<td>CTL7021Y</td>
<td>Curriculum and Teaching in History — Intermediate/Senior</td>
</tr>
<tr>
<td>CTL7022Y</td>
<td>Curriculum and Teaching in Mathematics — Intermediate/Senior</td>
</tr>
<tr>
<td>CTL7023Y</td>
<td>Curriculum and Teaching in Science: Biology — Intermediate/Senior</td>
</tr>
<tr>
<td>CTL7024Y</td>
<td>Curriculum and Teaching in Science: Chemistry — Intermediate/Senior</td>
</tr>
<tr>
<td>CTL7025Y</td>
<td>Curriculum and Teaching in Science: Physics — Intermediate/Senior</td>
</tr>
<tr>
<td>CTL7026Y</td>
<td>Curriculum and Teaching in Science: General</td>
</tr>
<tr>
<td>CTL7027Y</td>
<td>Curriculum and Teaching in Social Science: General — Intermediate/Senior</td>
</tr>
</tbody>
</table>

### Prerequisites

Before applying to the Intermediate/Senior division, applicants must ensure that they have the required number of prerequisite courses for the teaching subjects. See the admission requirements above for details or visit the MT program website for teaching subject specializations and their prerequisites.

### Religious Education

All MT students interested in teaching in the Ontario Catholic School system can choose to take the Teaching in Ontario’s Catholic Schools course through the Continuing and Professional Learning office. This course is required by the Catholic boards as a prerequisite for a job interview and as a condition of employment. Offered in Year 1 of the MT program, this course is in addition to the degree’s program requirements.
Dentistry

Dentistry: Introduction

Faculty Affiliation

Dentistry

Degree Programs

Dentistry

MSc and PhD

- Fields:
  - Dental Anaesthesia;
  - Dental Biomedical Sciences (this field is taken by MSc and PhD students who are not in a specialty);
  - Dental Public Health;
  - Endodontics;
  - Oral and Maxillofacial Pathology;
  - Oral and Maxillofacial Pathology and Oral Medicine;
  - Oral and Maxillofacial Radiology;
  - Oral and Maxillofacial Surgery;
  - Oral Medicine;
  - Orthodontics and Dentofacial Orthopedics;
  - Pediatric Dentistry;
  - Periodontics;
  - Prosthodontics

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Aging, Palliative and Supportive Care Across the Life Course
- Biomedical Engineering
- Global Health (U of T Global Scholar)
- Musculoskeletal Sciences
- Neuroscience
- Women's Health

Overview

The Faculty of Dentistry offers graduate programs leading to either a Master of Science or Doctor of Philosophy degree. These graduate programs appeal to:

- applicants, both dentists and non-dentists, who wish to pursue graduate research training; and
- applicants who have a degree in dentistry and who are pursuing research training and advanced clinical education in one of the dental specialties (also known as fields).

Consequently, both the MSc and the PhD degrees have a common core of coursework, with each having varying additional research and clinical training requirements (if applicable).

The Dentistry MSc program develops students’ scholarly skills and critical thoughts, and is intended for those whose career goal is to achieve mastery of a field in oral health science, employment in a research environment, or clinical specialty practice (if applicable). The MSc in Dentistry can be completed through the following options: 1) thesis in the field of Dental Biomedical Sciences, 2) thesis with dental specialty, or 3) coursework only with dental specialty.

The Dentistry PhD program is intended for those whose career goal is to work at the forefront of their field in oral health sciences as an independent research scientist or clinician-scientist in an academic, governmental, or industrial setting. This thesis-based program can be completed with or without a dental specialty, and on a full-time basis only.

Contact and Address

Web: [www.dentistry.utoronto.ca](http://www.dentistry.utoronto.ca)
Email: gradstudies@dentistry.utoronto.ca
Telephone: (416) 864-8114
Fax: (416) 979-4944

Faculty of Dentistry, Student Services Office
University of Toronto
Room 104, 124 Edward Street
Toronto, Ontario M5G 1G6
Canada

Dentistry: Graduate Faculty

Full Members

Agur, Anne - BSc, MSc, PhD
Aubin, Jane - BSc, PhD
Avivi-Arber, Limor - MSc, DMD, BMedSc, PhD
Azarpazhooh, Amir - MSc, DDS, PhD
Bozec, Laurent - BSc, PhD
Bressmann, Tim - MPH, PhD
Caniero, Karina - BSc, PhD
Casas, Michael - MSc, DDS
Casper, Robert - MD
Cioffi, Iacopo - DDS, PhD
Cvitkovitch, Dennis - BSc, MSc, PhD
Davies, John - BSc, BDSc, PhD, DSc
Dempster, Laura - BScD, MSc, PhD
Deporter, Douglas - DipPerio, DDS, PhD
Dostrovsky, Jonathan - BSc, MSc, PhD
Finer, Yoav - MSc, MSc, DMD, PhD
Friedman, Shimon - DMD
Ganss, Bernhard - BSc, MSc, DrRerNat
Glogauer, Michael - DDS, PhD
Gong, Siew-Ging - BDS, MA, MScD, PhD
Grynpras, Marc - MSc, PhD
Haas, Daniel - BSc, BDS, DScD, DDS, PhD
Hinz, Boris - PhD
Kenny, David - BSc, DDS
Kishen, Anil - BDS, MDS, PhD (Associate Dean, Graduate Education)
Lam, Ernest - BSc, MSc, DMD, PhD
Lawrence, Herenia - MSc, DDS, PhD
Levesque, Celine - BSc, MSc, PhD
Magalhaes, Marco - BDS, MSc, PhD
Manolson, Morris - BS, PhD (Vice-Dean, Research)
McCulloch, Christopher - BSc, DDS, PhD
Moayedi, Massieh - BSc, PhD
Moriarty, Tara - BA, BSc, PhD
Prakki, Anuradha - MSc, DDS, PhD
Quinonez, Carlos R. - MSc, DMD, PhD
Santerre, Paul - BSc, MSc, PhD
Sessle, Barry - BDS, BS, MDS, PhD
Seth, Arun - MS, PhD
Sherman, Philip - MD
Simmons, Craig - BSc, MSc, PhD
Sone, Eli - BSc, MS, PhD
Tenenbaum, Howard - DipPerio, DDS, PhD

Members Emeriti

Mayhall, John - BA, MA, AM, DDS, PhD
Pilliar, Robert - BASc, PhD
Ross, Robert Bruce - MSc, DDS, FRCD
Watson, Philip - BDSc, DDS, MScD
Zarb, George - BScD, MS, DDS

Associate Members

Andrews, Paul - BSc, MSc, DDS
Barrett, Edward - BSc, MSc, DDS
Barzilay, Issac - MS, DDS
Basrani, Bettina - PhD
Bradley, Grace - MSc, DDS
Cherkas, Pavel - BSc, DMD, MSD, PhD
Chvartszaid, David - MSc, MSc, DDS
Goldberg, Michael - DipPerio, BSc, MSc, DDS
Judd, Peter - BSc, MS, DDS
Kulkarni, Gajanan - LLB, BDS, MSc, PhD
Lai, Jim Yuan - BSc, MSc, DMD, FRCD (Vice-Dean, Education)
Lanca, A. Jose - MD, PhD
Laporte, Audrey - BA, MA, PhD
Leong, Iona - BSc, BDS, MSc
Malkhassian, Gevik - MSc, DDS
Metaxas, Angelos - DipOrH, MSc, DDS, DDSc
Nainar, Hashim - BDS, MScD
Nkansah, Peter - BSc, MSc, DDS
Ouanounou, Aviv - BSc, MSc, DDS
Porschbacher, Susanne - DDS
Pharoah, Michael - BSc, MSc, DDS
Posluns, James - DipOrH, BSc, MEd, DDS
Sectakof, Pavel - DDS
Somogyi-Ganss, Eszter - MSc, DMD, PhD
Suri, Sunjay - BDS, DDS
Sutherland, Susan - BScN, MSc, DDS
Tam, Laura - BSc, MSc, DDS (Interim Dean and Graduate Chair)
Tenn-Lyn, Nicole - BSc, MEd, MD
Thang, Trevor - MS, DDS
Tompson, Bryan - DipOrH, DDS
Yarascavitch, Carilyne - BSc, MSc, DDS

Dentistry: Dentistry MSc (Dental Biomedical Sciences Field)

Program Description

The Dentistry MSc program, Dental Biomedical Sciences field develops students' scholarly and critical thinking skills, and is intended for those whose career goal is to achieve mastery of a field in oral health science or employment in a research environment. The program length is six sessions, with most students taking two years to complete the requirements.

A part-time option is also available. Part-time students complete the same program requirements over an extended period of time (usually 12 sessions). Note: part-time students are ineligible to transfer to the PhD field in Dental Biomedical Sciences.

Additionally, MSc students in the field of Dental Biomedical Sciences are ineligible to transfer to a PhD program with a dental specialty.

MSc Program (Dental Biomedical Sciences): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- An appropriate BSc, Doctor of Dental Surgery (DDS), or an equivalent degree, with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 3.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - An additional 1.0 elective FCE.
  - **Years 1 and 2:**
    - DEN1010H Graduate Research Dissemination Seminar (Credit/No Credit; 0.5 FCE)
  - **Year 2:**
    - Research, thesis completion, and oral defence of the written thesis.
- Residency. Ordinarily, one year of full-time registration; however, it is the Faculty of Dentistry’s expectation that students will normally remain in full-time attendance on campus to enable full participation in departmental activities for two years.
Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
12 sessions part-time

Time Limit

3 years full-time;
6 years part-time

*D Course that may continue over a program. The course is graded when completed.

Dentistry: Dentistry MSc (Dental Anaesthesia Specialty)

MSc Program (Dental Anaesthesia Specialty)

Program Description

The Dentistry MSc, Dental Anaesthesia specialty is a three-year full-time program. The specialty in Dental Anaesthesia is designed to prepare dentists with a full range of sedation and anaesthetic techniques for dental patients with the focus on deep sedation and general anaesthesia. The teaching facilities for this program are provided by the combined resources of Dental Anaesthesia in the Faculty of Dentistry and the Department of Anaesthesia in the Temerty Faculty of Medicine. Training is given both at the Faculty of Dentistry and at teaching hospitals associated with the University.

Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty. Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

MSc Program (Dental Anaesthesia Specialty): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of **2.0 full-course equivalents (FCEs) and a thesis** as follows:
  - **Year 1**:
    - DEN1010H *Research Ethics* (Credit/No Credit; 0.5 FCE)
    - DEN1015H *Introduction to Biostatistics* (0.5 FCE)
  - **Year 2 and 3**:
    - DEN1001H* *Graduate Research Dissemination Seminars* (Credit/No Credit; 0.5 FCE).
- In the specialty of Dental Anaesthesia, complete **15.5 required FCEs** as follows. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - **Year 1**:
    - DEN1014H *Clinical Epidemiology and Evidence-Based Care* (0.5 FCE)
    - DEN1055H *Basic Principles of Anaesthesia* (0.5 FCE)
    - DEN1056Y *Basic Concepts in Clinical Medicine* (1.0 FCE)
    - DEN1073Y *Dental Anaesthesia Graduate Seminars* (1.0 FCE)
    - DEN1074Y *Foundations of Medicine As Applied to Dental Anaesthesia* (1.0 FCE)
    - DEN1076H* *General Anaesthesia for Medical Procedures — Adult I* (0.5 FCE)
    - DEN1078H* *General Anaesthesia for Dental Procedures — Adult I* (0.5 FCE)
    - DEN1084H* *Experiences in Clinical Teaching I* (Credit/No Credit; 0.5 FCE)
    - DEN1077Y *Fundamentals of Dental Anaesthesia* (1.0 FCE)
    - Begin *thesis research* (RST9999Y)
  - **Year 2**:
    - DEN1052Y *General Anaesthesia for Medical Procedures — Pediatric* (1.0 FCE)
    - DEN1071H* *Medical Anaesthesia Seminars I* (Credit/No Credit; 0.5 FCE)
    - DEN1083Y *Experiences in Clinical Medicine* (1.0 FCE)
    - DEN1085H* *Experiences in Clinical Teaching II* (Credit/No Credit; 0.5 FCE)
    - DEN1088Y *Fundamentals of Dental Anaesthesia II* (1.0 FCE)
    - PDE9094Y0 *Clinical Conferences* (Credit/No Credit; 1.0 FCE)
    - Continue with thesis research (RST9999Y)
  - **Year 3**:
    - DEN1072H* *Medical Anaesthesia Seminars II* (Credit/No Credit; 0.5 FCE)
    - DEN1075Y *General Anaesthesia for Dental Procedures — Pediatric* (1.0 FCE)
    - DEN1077H* *General Anaesthesia for Medical Procedures — Adult II* (Credit/No Credit; 0.5 FCE)
    - DEN1079H* *General Anaesthesia for Dental Procedures — Adult II* (0.5 FCE)
    - DEN1086H* *Experiences in Clinical Teaching III* (Credit/No Credit; 0.5 FCE)
    - DEN1089Y *Fundamentals of Dental Anaesthesia II* (1.0 FCE)
    - PDE9094Y0 *Clinical Conferences* (Credit/No Credit; 1.0 FCE)
    - Oral defence of the written thesis (RST9999Y).
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)
Time Limit

4 years full-time

Course that may continue over a program. Credit is given when the course is completed.

Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

MSc Program (Dental Anaesthesia Specialty): Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Dental Anaesthesia, complete a total of 15.5 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - **Year 1:**
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1055H Basic Principles of Anaesthesia (0.5 FCE)
    - DEN1056Y Basic Concepts in Clinical Medicine (1.0 FCE)
    - DEN1073Y Dental Anaesthesia Graduate Seminars (1.0 FCE)
    - DEN1074Y Foundations of Medicine as Applied to Dental Anaesthesia (1.0 FCE)
    - DEN1076H General Anaesthesia for Medical Procedures — Adult I (0.5 FCE)
    - DEN1078H General Anaesthesia for Dental Procedures — Adult I (0.5 FCE)
    - DEN1084H Experiences in Clinical Teaching I (Credit/No Credit; 0.5 FCE)
    - DEN1087Y Fundamentals of Dental Anaesthesia (1.0 FCE)
    - 1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - **Year 2:**
    - DEN1052Y General Anaesthesia for Medical Procedures — Pediatric (1.0 FCE)
    - DEN1071H Medical Anaesthesia Seminars I (Credit/No Credit; 0.5 FCE)
    - DEN1083Y Experiences in Clinical Medicine (1.0 FCE)
    - DEN1085H Experiences in Clinical Teaching II (Credit/No Credit; 0.5 FCE)
    - DEN1088Y Fundamentals of Dental Anaesthesia II (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit)
  - **Year 3:**
    - DEN1072H Medical Anaesthesia Seminars II (Credit/No Credit; 0.5 FCE)
    - DEN1075Y General Anaesthesia for Dental Procedures — Pediatric (1.0 FCE)
    - DEN1077H General Anaesthesia for Medical Procedures — Adult II
    - DEN1079H General Anaesthesia for Dental Procedures — Adult II (0.5 FCE)
    - DEN1086H Experiences in Clinical Teaching III (Credit/No Credit; 0.5 FCE)
    - DEN1089Y Fundamentals of Dental Anaesthesia III (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

Course that may continue over a program. Credit is given when the course is completed.

Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Dentistry: Dentistry MSc (Dental Public Health Specialty)

MSc Program (Dental Public Health Specialty)

Program Description

The Dentistry MSc, Dental Public Health specialty is a two-year program. The specialty in Dental Public Health consists of core subjects, with optional subjects chosen by students in consultation with the program director. Courses are given by the Faculty of Dentistry as well as other units, such as the Dalla Lana School of Public Health and the Institute of Health Policy, Management and Evaluation.
This program is offered both full-time and part-time. Part-time students have up to five years to complete all requirements. Note: part-time students are ineligible to transfer to the PhD in Dentistry program.

The coursework-only option of this specialty is also available to dental hygienists. Students in the coursework-only option are ineligible to transfer to the PhD in Dentistry program.

Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

MSc Program (Dental Public Health Specialty):
Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 1 and 2:**
    - DEN1001H0 Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Dental Public Health, complete 7.0 required FCEs as follows:
  - **Year 1:**
    - CHL5004H Introduction to Public Health Sciences (0.5 FCE)
    - DEN1003H Preventive Dentistry (0.5 FCE)
    - DEN1006Y Seminars in Dental Public Health (1.0 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1051Y Oral Epidemiology (1.0 FCE)
    - DEN1063Y Practicum in Dental Public Health (1.0 FCE)
    - PDE9094Y0 Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Begin thesis research (RST9999Y)
  - **Year 2:**
    - DEN1064H Management Principles in Canadian Dental Health Organizations (0.5 FCE)
    - 0.5 FCE chosen in the area of health policy or health economics based on the student’s clinical or research interests
    - 0.5 FCE chosen in the area of public health based on the student’s clinical or research interests

- Oral defence of the written thesis (RST9999Y).
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
12 sessions part-time

Time Limit

3 years full-time;
6 years part-time

5 Course that may continue over a program. Credit is given when the course is completed.

MSc Program (Dental Public Health Specialty):
Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree, with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.
- Dental hygienist applicants must have a baccalaureate dental hygiene degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in their final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 1 and 2:**
    - DEN1001H0 Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Dental Public Health, complete 7.0 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows:
  - **Year 1:**
    - CHL5004H Introduction to Public Health Sciences (0.5 FCE)
    - DEN1003H Preventive Dentistry (0.5 FCE)
    - DEN1006Y Seminars in Dental Public Health (1.0 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - **Years 1 and 2:**
    - DEN1001H0 Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
MSc Program (Endodontics Specialty): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - **Year 2:**
    - DEN1011H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Endodontics, complete 18.0 required FCEs as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  
Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

Program Description

The Dentistry MSc, Endodontics specialty is a three-year full-time program. The specialty in Endodontics is designed to provide students with opportunities to acquire excellent clinical skills and comprehension of the underlying biology. Its components include patient care, providing all aspects of endodontic treatment; topic-specific and current literature seminars; clinical conferences; core curriculum courses; rotation programs; research at the MSc level, including application for funding, preparation of manuscripts for publication, presentation at national and international research forums; and guest lectures.

Students must complete a dental clinic rotation as part of the Endodontics specialty requirements.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.
• Coursework-Only Option

MSc Program (Endodontics Specialty):
Coursework-Only Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
• Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

• Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  o Year 1:
    ▪ DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)

• In the specialty of Endodontics, complete 18.0 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

0 Course that may continue over a program. The course is graded or credit is given when completed.
+ Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
++ Course is offered in alternate years.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

o Year 1:
  ▪ DEN1002H Oral Pathology (0.5 FCE)
  ▪ DEN1007H Oral Radiology (0.5 FCE)
  ▪ DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  ▪ DEN1062H Pharmacology of Dental Therapeutics (0.5 FCE)
  ▪ DEN1070H++ Advances in Dental Materials Science (0.5 FCE)
  ▪ DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (Credit/No Credit; 0.5 FCE)
  ▪ DEN3005H Head and Neck Anatomy (0.5 FCE)
  ▪ DEN5005H+ Introduction to Graduate Endodontics (0.5 FCE)
  ▪ DEN5011Y Graduate Endodontics Case Presentation I (1.0 FCE)
  ▪ DEN5021Y Graduate Endodontics Topical Literature I (1.0 FCE)
  ▪ DEN5031Y Endodontics Current Literature Seminar I (Credit/No Credit; 1.0 FCE)
  ▪ DEN5091Y Endodontic Clinic 1 (Credit/No Credit; 1.0 FCE)
  ▪ DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
  ▪ DEN1070H Oral Radiology: Advances in Dental Imaging (0.5 FCE)
  ▪ PDE9094Y Clinical Conferences (Credit/No Credit; 0.5 FCE)

o Year 2:
  ▪ DEN1022H Investigating Pathogenic Biofilms (0.5 FCE)
  ▪ DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
  ▪ DEN5004Y Single Tooth Replacements with Implant-Supported Prosthesis (1.0 FCE)
  ▪ DEN5012Y Graduate Endodontics Case Presentation II (1.0 FCE)
  ▪ DEN5022Y Graduate Endodontics Topical Literature II (1.0 FCE)
  ▪ DEN5032Y Graduate Endodontics Current Literature Seminar II (Credit/No Credit; 1.0 FCE)
  ▪ DEN5092Y Endodontic Clinic 2 (Credit/No Credit; 1.0 FCE)
  ▪ DEN1090H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
  ▪ PDE9094Y Clinical Conferences (Credit/No Credit; 0.5 FCE)

o Year 3:
  ▪ DEN5004Y Single Tooth Replacements with Implant-Supported Prosthesis (1.0 FCE)
  ▪ DEN5013Y Graduate Endodontics Case Presentation III (1.0 FCE)
  ▪ DEN5033Y Endodontics Current Literature Seminar III (Credit/No Credit; 1.0 FCE)
• DEN5093Y Endodontic Clinic III (Credit/No Credit; 1.0 FCE)
• Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

Course that may continue over a program. The course is graded or credit is given when completed.

Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Course is offered in alternate years.

Dentistry: Dentistry MSc (Oral and Maxillofacial Pathology Specialty)

MSc Program (Oral and Maxillofacial Pathology Specialty)

Program Description

The Dentistry MSc, Oral and Maxillofacial Pathology specialty is a three-year full-time program. The specialty in Oral and Maxillofacial Pathology focuses on the identification and management of diseases of the oral and maxillofacial regions through microscopic, clinical, biochemical, or other forms of examination. Oral and Maxillofacial Pathology includes histopathologic analysis of tissue samples, the investigation of causes, and effects of diseases.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

MSc Program (Oral and Maxillofacial Pathology Specialty): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - Year 2:
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
  - In the specialty of Oral and Maxillofacial Pathology, complete 6.5 required FCEs as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
    - Year 1:
      - LMP1300Y General and Special Pathology (1.0 FCE)
      - Begin thesis research (RST9999Y)
    - Year 2:
      - DEN1002H Oral Pathology (0.5 FCE)
      - DEN1007H Oral Radiology (0.5 FCE)
      - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
      - DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
      - DEN1311Y Oral Surgical Pathology (1.0 FCE)
      - Continue with thesis research (RST9999Y)
    - Year 3:
      - DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
      - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
      - Oral defence of the written thesis (RST9999Y).

- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

Course that may continue over a program. Credit is given when the course is completed.

MSc Program (Oral and Maxillofacial Pathology Specialty): Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
• Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

• Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  o Year 1:
    ▪ DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    ▪ DEN1015H Introduction to Biostatistics (0.5 FCE)
  o Year 2:
    ▪ DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  o Years 2 and 3:
    ▪ DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

• In the specialty of Oral and Maxillofacial Pathology, complete 6.5 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  o Year 1:
    ▪ LMP1300Y General and Special Pathology (1.0 FCE)
    ▪ 1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  o Year 2:
    ▪ DEN1002H Oral Pathology (0.5 FCE)
    ▪ DEN1007H Oral Radiology (0.5 FCE)
    ▪ DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    ▪ DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
    ▪ DEN1311Y Oral Surgical Pathology (1.0 FCE)
  o Year 3:
    ▪ DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
    ▪ DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    ▪ Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

• Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

Dentistry: Dentistry MSc (Oral and Maxillofacial Pathology and Oral Medicine Specialty)

MSc Program (Oral and Maxillofacial Pathology and Oral Medicine Specialty)

Program Description

The Dentistry MSc, Oral and Maxillofacial Pathology and Oral Medicine specialty is a four-year full-time program. The specialty in Oral and Maxillofacial Pathology and Oral Medicine is concerned with the diagnosis, nature, and primarily non-surgical management of oral, maxillofacial, and temporomandibular diseases and disorders, including dental management of patients with medical complications.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

MSc Program (Oral and Maxillofacial Pathology and Oral Medicine Specialty): Thesis-Only Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.

• Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

• Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  o Year 2:
    ▪ DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    ▪ DEN1015H Introduction to Biostatistics (0.5 FCE)
    ▪ DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  o Years 2 and 4:
    ▪ DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

• In the specialty of Oral and Maxillofacial Pathology and Oral Medicine, complete 11.5 FCEs as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  o Year 1:
    ▪ LMP1300Y General and Special Pathology (1.0 FCE)
    ▪ Begin thesis research (RST 9999Y)
  o Year 2:
    ▪ DEN1002H Oral Pathology (0.5 FCE)
• Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

• Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  o Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  o Year 2:
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  o Years 2 and 3:
    - DEN1001H© Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

• In the specialty of Oral and Maxillofacial Pathology, complete 6.5 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  o Year 1:
    - LMP1300Y General and Special Pathology (1.0 FCE)
    - 1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  o Year 2:
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
  o Year 3:
    - DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
    - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    - Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

• Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

© Course that may continue over a program. Credit is given when the course is completed.
DEN1007H Oral Radiology (0.5 FCE)
DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
DEN1211Y Oral Medicine I (1.0 FCE)
DEN1311Y Oral Surgical Pathology (1.0 FCE)
DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
Continue with thesis research (RST9999Y)

Year 3:
DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
DEN1212Y Oral Medicine II (1.0 FCE)
DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
Continue with thesis research (RST9999Y)

Year 4:
DEN1113Y Advanced Oral and Maxillofacial Pathology III (1.0 FCE)
DEN1213Y Oral Medicine III (1.0 FCE)
DEN1313Y Advanced Oral Surgical Pathology II (1.0 FCE)
Oral defence of the written thesis (RST9999Y).

Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length
13 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S/F/W/S)

Time Limit
5 years full-time

Course that may continue over a program. The course is graded or credit is given when completed.

MSc Program (Oral and Maxillofacial Pathology and Oral Medicine Specialty): Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - Year 2:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)

- Year 2 and 4:
  - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

In the specialty of Oral and Maxillofacial Pathology and Oral Medicine, complete 11.5 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Year 1:
- LMP1300Y General and Special Pathology (1.0 FCE)
- 1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice

Year 2:
- DEN1002H Oral Pathology (0.5 FCE)
- DEN1007H Oral Radiology (0.5 FCE)
- DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
- DEN1211Y Oral Medicine I (1.0 FCE)
- DEN1311Y Oral Surgical Pathology (1.0 FCE)
- DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)

Year 3:
- DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
- DEN1212Y Oral Medicine II (1.0 FCE)
- DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)

Year 4:
- DEN1113Y Advanced Oral and Maxillofacial Pathology III (1.0 FCE)
- DEN1213Y Oral Medicine III (1.0 FCE)
- DEN1313Y Advanced Oral Surgical Pathology II (1.0 FCE)
- Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length
13 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S/F/W/S)

Time Limit
5 years full-time

Course that may continue over a program. The course is graded or credit is given when completed.
Dentistry: Dentistry MSc (Oral and Maxillofacial Radiology Specialty)

MSc Program (Oral and Maxillofacial Radiology Specialty)

Program Description

The Dentistry MSc, Oral and Maxillofacial Radiology specialty is a three-year full-time program. The specialty in Oral and Maxillofacial Radiology is concerned with the prescription, production, and interpretation of diagnostic images of diseases and disorders of the craniofacial complex.

Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty. Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

MSc Program (Oral and Maxillofacial Radiology Specialty): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
  - Year 2:
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1001H\(^\text{++}\) Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
  - In the specialty of Oral and Maxillofacial Radiology, complete 8.5 required FCEs as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
    - Year 1:
      - DEN1002H Oral Pathology (0.5 FCE)
      - DEN1007H Oral Radiology (0.5 FCE)
      - DEN1017H\(^\text{++}\) Temporomandibular Disorders (0.5 FCE)
      - DEN1094Y Advanced Oral and Maxillofacial Radiology I (1.0 FCE)
    - Year 2:
      - DEN11014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
      - DEN1095Y Advanced Oral and Maxillofacial Radiology II (1.0 FCE)
      - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
      - PDE9094Y\(^\text{++}\) Clinical Conferences (Credit/No Credit)
    - Continue with thesis research (RST9999Y)

- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

\(^{\text{++}}\) Course that may continue over a program. Credit is given when the course is completed.

\(^{\text{++}}\) Course is offered in alternate years.

MSc Program (Oral and Maxillofacial Radiology Specialty): Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - DEN1311Y Oral Surgical Pathology (1.0 FCE)
  - DEN3005H Head and Neck Anatomy (0.5 FCE)
  - Begin thesis research (RST9999Y)
  - Mi Applied Physics modules taken through the Department of Medical Imaging in the Temerty Faculty of Medicine (0.0 FCE)
  - Year 2:
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1095Y Advanced Oral and Maxillofacial Radiology II (1.0 FCE)
    - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    - PDE9094Y\(^\text{++}\) Clinical Conferences (Credit/No Credit)
  - Mi Applied Physics modules taken through the Department of Medical Imaging in the Temerty Faculty of Medicine (0.0 FCE)
  - Clinical and Experimental Radiobiology modules taken through the Department of Radiation Oncology in the Temerty Faculty of Medicine (0.0 FCE)
  - Continue with thesis research (RST9999Y)
  - Year 3:
    - DEN1096Y Advanced Oral and Maxillofacial Radiology III (1.0 FCE)
    - PDE9094Y\(^\text{++}\) Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Oral defence of the written thesis (RST9999Y).
Dentistry: Dentistry MSc (Oral and Maxillofacial Surgery Specialty)

MSc Program (Oral and Maxillofacial Surgery Specialty)

**Program Description**

The Dentistry MSc, Oral and Maxillofacial Surgery specialty is a four-year full-time program. The specialty in Oral and Maxillofacial Surgery is concerned with and includes the diagnosis and surgical and adjunctive treatment of disorders, diseases, injuries, and defects, involving the functional and aesthetic aspects of the hard and soft tissues of the oral and maxillofacial regions and related structures. Clinical activities are based primarily at Mt. Sinai Hospital, Sunnybrook Health Sciences Centre, Humber River Hospital, and The Hospital for Sick Children. There is also additional participation at other University-affiliated teaching centres: Holland Bloorview Kids Rehabilitation, Lakeview Health, and the Rouge Valley Health Network.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

**MSc Program (Oral and Maxillofacial Surgery Specialty): Thesis-Only Option**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 1, 3, and 4:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Year 2:**
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE).

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**Program Length**

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

**Time Limit**

4 years full-time
In the specialty of Oral and Maxillofacial Surgery, complete **21.0 required FCEs** as follows. Students have the option to take DEN1008H *Cone Beam CT Imaging* (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

**Year 1:**
- DEN1002H *Oral Pathology* (0.5 FCE)
- DEN1007H *Oral Radiology* (0.5 FCE)
- DEN1311Y *Oral Surgical Pathology* (1.0 FCE)
- DEN2051Y *Surgical Orthodontics I* (1.0 FCE)
- DEN3001Y *Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease* (1.0 FCE)
- DEN3002Y *Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery* (1.0 FCE)
- DEN3003Y *Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery* (1.0 FCE)

**Year 2:**
- DEN3001Y *Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease* (1.0 FCE)
- DEN3002Y *Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery* (1.0 FCE)
- DEN3003Y *Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery* (1.0 FCE)

**Year 3:**
- DEN1312Y *Advanced Oral Surgical Pathology I* (1.0 FCE)
- DEN2052Y *Surgical Orthodontics II* (1.0 FCE)
- DEN3001Y *Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease* (1.0 FCE)
- DEN3002Y *Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery* (1.0 FCE)
- DEN3003Y *Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery* (1.0 FCE)

**Year 4:**
- DEN2052Y *Surgical Orthodontics II* (audit only)
- DEN3001Y *Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease* (1.0 FCE)
- DEN3002Y *Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery* (1.0 FCE)
- DEN3003Y *Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery* (1.0 FCE)
- **Oral defence** of the written thesis (RST9999Y).

**Residency.** Students must be on campus and participating for the duration of their registration in the program.

### Program Length
13 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S/F/W/S/F/W/S)

### Time Limit
5 years full-time

Course that may continue over a program. Credit is given when the course is completed.

### MSc Program (Oral and Maxillofacial Surgery Specialty): Coursework-Only Option

#### Minimum Admission Requirements
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

#### Program Requirements
- Students must successfully complete a total of **2.0 full-course equivalents (FCEs)** as follows:
  - **Year 1:**
    - DEN1010H *Research Ethics* (Credit/No Credit; 0.5 FCE)
    - DEN1015H *Introduction to Biostatistics* (0.5 FCE)
    - DEN1101H *Introduction to Research Methods and Dissemination* (Credit/No Credit; 0.5 FCE)
  - **Years 1, 3, and 4:**
    - DEN1001H* Graduate Research Dissemination Seminars* (Credit/No Credit; 0.5 FCE).
- In the specialty of Oral and Maxillofacial Surgery, complete **21.0 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE)** as follows. Students have the option to take DEN1008H *Cone Beam CT Imaging* (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - **Year 1:**
    - DEN1002H *Oral Pathology* (0.5 FCE)
    - DEN1007H *Oral Radiology* (0.5 FCE)
    - DEN1311Y *Oral Surgical Pathology* (1.0 FCE)
    - DEN2051Y *Surgical Orthodontics I* (1.0 FCE)
    - DEN3001Y *Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease* (1.0 FCE)
    - DEN3002Y *Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery* (1.0 FCE)
    - DEN3003Y *Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery* (1.0 FCE)
  - **Year 2:**
    - CONC000Y* Cone Beam CT Imaging* (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
- **Graduation:** On completion of the course requirements, students must successfully complete an oral defence of the written thesis (RST9999Y).
Dentistry: Dentistry MSc (Oral Medicine Specialty)

MSc Program (Oral Medicine Specialty)

Program Description

The Dentistry MSc, Oral Medicine specialty is a three-year full-time program. The specialty in Oral Medicine focuses on nonsurgical management of oral diseases including the management of oral mucosal and salivary gland diseases, temporomandibular disorders, and orofacial pain, the oral complications of systemic disease, and dental management of medically complex patients.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

MSc Program (Oral Medicine Specialty): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 1 and 3:**
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
  - In the specialty of Oral Medicine, complete a total of 7.5 required FCEs as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
    - **Year 1:**
      - DEN1002H Oral Pathology (0.5 FCE)
      - DEN1007H Oral Radiology (0.5 FCE)
      - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - **Year 2:**
      - DEN1211Y Oral Medicine I (1.0 FCE)
    - **Year 3:**
      - DEN1311Y Oral Surgical Pathology (1.0 FCE)

Program Length

13 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S/F/W/S)

Time Limit

5 years full-time

Course that may continue over a program. Credit is given when the course is completed.
Year 2:
- DEN1212Y Oral Medicine II (1.0 FCE)
- DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
- Continue with thesis research (RST9999Y)

Year 3:
- DEN1213Y Oral Medicine III (1.0 FCE)
- DEN1313Y Advanced Oral Surgical Pathology II (1.0 FCE)
- Oral defence of the written thesis (RST9999Y).

• Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

Course that may continue over a program. Credit is given when the course is completed.

MSc Program (Oral Medicine Specialty): Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.

- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  • Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  • Years 1 and 3:
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Oral Medicine, complete a total of 7.5 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  • Year 1:
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)

- DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
- DEN1211Y Oral Medicine I (1.0 FCE)
- DEN1311Y Oral Surgical Pathology (1.0 FCE)
- 1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice

Year 2:
- DEN1212Y Oral Medicine II (1.0 FCE)
- DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)

Year 3:
- DEN1213Y Oral Medicine III (1.0 FCE)
- DEN1313Y Advanced Oral Surgical Pathology II (1.0 FCE)
- Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

• Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

Course that may continue over a program. The course is graded or credit is given when the course is completed.

Dentistry: Dentistry MSc (Orthodontics and Dentofacial Orthopedics Specialty)

MSc Program (Orthodontics and Dentofacial Orthopedics Specialty)

Program Description

The Dentistry MSc, Orthodontics and Dentofacial Orthopedics specialty is a three-year full-time program. The specialty in Orthodontics and Dentofacial Orthopedics is concerned with the supervision, guidance, and correction of the growing or mature dentofacial structures and the diagnosis, prevention, and treatment of any abnormalities associated with these structures.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.
MSc Program (Orthodontics and Dentofacial Orthopedics Specialty): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE)

- In the specialty of Orthodontics and Dentofacial Orthopedics, complete 14.5 required FCEs as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
- Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - **Year 1:**
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
    - DEN2001Y Orthodontics 1: Advanced Orthodontic Diagnosis and Treatment Planning (1.0 FCE)
    - DEN2006Y Facial Growth and Facial Analysis (1.0 FCE)
    - DEN2010H Tissue Reaction to Orthodontic and Orthopedic Forces (0.5 FCE)
    - DEN2041H Interceptive Orthodontics Diagnosis and Etiology (0.5 FCE)
    - DEN2051Y Surgical Orthodontics I (1.0 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit)
    - Begin thesis research (RST9999Y)
  - **Year 2:**
    - DEN1016H Occlusion: Function and Dysfunction (0.5 FCE)
    - DEN1017H Temporomandibular Disorders (0.5 FCE)
    - DEN2002Y Orthodontics 2: Biomechanics, Orthodontic Technique, and Practice Administration (1.0 FCE)
    - DEN2007Y Craniofacial Anomalies (1.0 FCE)
    - DEN2009H Classic Theories of Craniofacial Growth (0.5 FCE)
  - **Year 3:**
    - DEN2003Y Orthodontics 3: Orthodontic Technique and Clinical Practice (1.0 FCE)
    - DEN2043H Interceptive Orthodontics Management and Technique (0.5 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Oral defence of the written thesis (RST9999Y).

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

0 Course that may continue over a program. Credit is given when the course is completed.

** Course is offered in alternate years.

MSc Program (Orthodontics and Dentofacial Orthopedics): Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN20042H Interceptive Orthodontics Seminars on Interceptive and Early Treatment (0.5 FCE)
    - DEN2052Y Surgical Orthodontics II (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit)
    - Continue with thesis research (RST9999Y)
  - **Year 3:**
    - DEN2003Y Orthodontics 3: Orthodontic Technique and Clinical Practice (1.0 FCE)
    - DEN2043H Interceptive Orthodontics Management and Technique (0.5 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Oral defence of the written thesis (RST9999Y).
In the specialty of Orthodontics and Dentofacial Orthopedics, complete 14.5 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

- **Year 1:**
  - DEN1007H Oral Radiology (0.5 FCE)
  - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
  - DEN2001Y Orthodontics 1: Advanced Orthodontic Diagnosis and Treatment Planning (1.0 FCE)
  - DEN2006Y Facial Growth and Facial Analysis (1.0 FCE)
  - DEN2010H Tissue Reaction to Orthodontic and Orthopedic Forces (0.5 FCE)
  - DEN2041H Interceptive Orthodontics Diagnosis and Etiology (0.5 FCE)
  - DEN2051Y Surgical Orthodontics I (1.0 FCE)
  - DEN3005H Head and Neck Anatomy (0.5 FCE)
  - PDE9094Y0 Clinical Conferences (Credit/No Credit)
  - 1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice

- **Year 2:**
  - DEN1016H Craniofacial Morphology and Development (0.5 FCE)
  - DEN1017H Craniofacial Anomalies (0.5 FCE)
  - DEN2004H Orthodontics 2: Biomechanics, Orthodontic Technique, and Practice Administration (1.0 FCE)
  - DEN2007Y Craniofacial Anomalies (0.5 FCE)
  - DEN2009H Classic Theories of Craniofacial Growth (0.5 FCE)
  - DEN2011Y Craniofacial Morphology and Development (1.0 FCE)
  - DEN2042H Interceptive Orthodontics Seminars on Interceptive and Early Treatment (0.5 FCE)
  - DEN2052Y Surgical Orthodontics II (1.0 FCE)
  - PDE9094Y0 Clinical Conferences (Credit/No Credit)

- **Year 3:**
  - DEN2003Y Orthodontics 3: Orthodontic Technique and Clinical Practice (1.0 FCE)
  - DEN2043H Interceptive Orthodontics Management and Technique (0.5 FCE)
  - PDE9094Y0 Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

**Program Length**

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

**Time Limit**

4 years full-time

- *Course that may continue over a program. Credit is given when the course is completed.
- **Course is offered in alternate years.

**Dentistry: Dentistry MSc (Pediatric Dentistry Specialty)**

**MSc Program (Pediatric Dentistry Specialty)**

**Program Description**

The Dentistry MSc, Pediatric Dentistry specialty is a three-year full-time program. Pediatric dentists provide primary and comprehensive preventive and therapeutic oral health diagnosis, care, and consultative expertise for infants and children through adolescence, including those of all ages with special care needs. The didactic program is centered at the Faculty of Dentistry, while the clinical program will be divided between the Faculty of Dentistry, the University-affiliated teaching hospitals and community-based Toronto Public Health dental clinic.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

**MSc Program (Pediatric Dentistry Specialty): Thesis-Only Option**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
• In the specialty of Pediatric Dentistry, complete 23.0 required FCEs as follows. Students have the option to take DEN1008H *Cone Beam CT Imaging* (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

○ Year 1:
  - DEN1002H *Oral Pathology* (0.5 FCE)
  - DEN1003H *Preventive Dentistry* (0.5 FCE)
  - DEN1007H *Oral Radiology* (0.5 FCE)
  - DEN1014H *Clinical Epidemiology and Evidence-Based Care* (0.5 FCE)
  - DEN1062H *Pharmacology of Dental Therapeutics* (0.0 FCE)
  - DEN1090H *Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures* (Credit/No Credit; 0.5 FCE)
  - DEN2007Y** *Craniofacial Anomalies* (1.0 FCE)
  - DEN4003Y *Pediatric Dentistry 3: Facial and Dental Growth and Development in Pediatric Dentistry* (1.0 FCE)
  - DEN4004H *Pediatric Dentistry 4: Child Behaviour Management* (0.5 FCE)
  - DEN4006Y *Pediatric Dentistry 6: Oral and Maxillofacial Surgery as Applied to Pediatric Dentistry* (1.0 FCE)
  - DEN4007H *Pediatric Dentistry 7: Therapy and Trauma* (0.5 FCE)
  - DEN4009Y *Pediatrics* (1.0 FCE)
  - DEN4010Y *Pediatric Medicine and Hospital Dentistry* (1.0 FCE)
  - DEN4011Y *Conscious Sedation and Anaesthesia in Pediatric Dentistry* (1.0 FCE)
  - DEN4012Y *Clinical Pediatric Dentistry I* (Credit/No Credit; 1.0 FCE)
  - DEN4013Y *Pediatric Dentistry Theory I* (Credit/No Credit; 1.0 FCE)
  - DEN4201Y *Pediatric Dentistry Journal/Literature Review I* (Credit/No Credit; 1.0 FCE)
  - DEN4801Y *Orthodontics for Pediatric Dentistry I* (Credit/No Credit; 1.0 FCE)
  - PDE9094Y○ *Clinical Conferences* (Credit/No Credit; 0.5 FCE)
  - Begin thesis research (RST9999Y)

○ Year 2:
  - DEN1070H** *Advances in Dental Materials Science* (0.5 FCE)
  - DEN4013Y *Clinical Pediatric Dentistry II* (Credit/No Credit; 1.0 FCE)
  - DEN4012Y *Pediatric Dentistry Theory II* (Credit/No Credit; 1.0 FCE)
  - DEN4202Y *Pediatric Dentistry Journal/Literature Review II* (Credit/No Credit; 1.0 FCE)
  - DEN4802Y *Orthodontics for Pediatric Dentistry II* (Credit/No Credit; 1.0 FCE)
  - PDE9094Y○ *Clinical Conferences* (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)

○ Year 3:
  - DEN4014Y *Clinical Pediatric Dentistry III* (Credit/No Credit; 1.0 FCE)
  - DEN4013Y *Pediatric Dentistry Theory III* (Credit/No Credit; 1.0 FCE)
  - DEN4203Y *Pediatric Dentistry Journal/Literature Review III* (Credit/No Credit; 1.0 FCE)
  - DEN4803Y *Orthodontics for Pediatric Dentistry III* (Credit/No Credit; 1.0 FCE)

  • **Oral defence** of the written thesis (RST9999Y).
  
• Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Requirements

• Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  ○ Year 1:
    - DEN1010H *Research Ethics* (Credit/No Credit; 0.5 FCE)
    - DEN1015H *Introduction to Biostatistics* (0.5 FCE)
    - DEN1101H *Introduction to Research Methods and Dissemination* (Credit/No Credit; 0.5 FCE)
  ○ Years 2 and 3:
    - DEN1001H○ *Graduate Research Dissemination Seminars* (Credit/No Credit; 0.5 FCE).

• In the specialty of Pediatric Dentistry, complete 23.0 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H *Cone Beam CT Imaging* (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

○ Year 1:
  - DEN1002H *Oral Pathology* (0.5 FCE)
  - DEN1003H *Preventive Dentistry* (0.5 FCE)
  - DEN1007H *Oral Radiology* (0.5 FCE)
  - DEN1014H *Clinical Epidemiology and Evidence-Based Care* (0.5 FCE)
  - DEN1062H *Pharmacology of Dental Therapeutics* (0.0 FCE)

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

○ Course that may continue over a program. Credit is given when the course is completed.

** Course is offered in alternate years.

MSc Program (Pediatric Dentistry Specialty): Coursework-Only Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.

• Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time

○ Course that may continue over a program. Credit is given when the course is completed.

** Course is offered in alternate years.

MSc Program (Pediatric Dentistry Specialty): Coursework-Only Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.

• Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

• Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  ○ Year 1:
    - DEN1010H *Research Ethics* (Credit/No Credit; 0.5 FCE)
    - DEN1015H *Introduction to Biostatistics* (0.5 FCE)
    - DEN1101H *Introduction to Research Methods and Dissemination* (Credit/No Credit; 0.5 FCE)
  ○ Years 2 and 3:
    - DEN1001H○ *Graduate Research Dissemination Seminars* (Credit/No Credit; 0.5 FCE).

• In the specialty of Pediatric Dentistry, complete 23.0 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H *Cone Beam CT Imaging* (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

○ Year 1:
  - DEN1002H *Oral Pathology* (0.5 FCE)
  - DEN1003H *Preventive Dentistry* (0.5 FCE)
  - DEN1007H *Oral Radiology* (0.5 FCE)
  - DEN1014H *Clinical Epidemiology and Evidence-Based Care* (0.5 FCE)
  - DEN1062H *Pharmacology of Dental Therapeutics* (0.0 FCE)
- **DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures** (Credit/No Credit; 0.5 FCE)
- **DEN2007Y Craniofacial Anomalies** (1.0 FCE)
- **DEN4003Y Pediatric Dentistry 3: Facial and Dental Growth and Development in Pediatric Dentistry** (1.0 FCE)
- **DEN4004H Pediatric Dentistry 4: Child Behaviour Management** (0.5 FCE)
- **DEN4006Y Pediatric Dentistry 6: Oral and Maxillofacial Surgery as Applied to Pediatric Dentistry** (1.0 FCE)
- **DEN4007H Pediatric Dentistry 7: Therapy and Trauma** (0.5 FCE)
- **DEN4009Y Pediatrics** (1.0 FCE)
- **DEN4010Y Pediatric Medicine and Hospital Dentistry** (1.0 FCE)
- **DEN4011Y Conscious Sedation and Anaesthesia in Pediatric Dentistry** (1.0 FCE)
- **DEN4012Y Clinical Pediatric Dentistry I** (Credit/No Credit; 1.0 FCE)
- **DEN4013Y Pediatric Dentistry Theory I** (Credit/No Credit; 1.0 FCE)
- **DEN4201Y Pediatric Dentistry Journal/Literature Review I** (Credit/No Credit; 1.0 FCE)
- **DEN4801Y Orthodontics for Pediatric Dentistry I** (Credit/No Credit; 1.0 FCE)
- **PDE9094Y Clinical Conferences** (Credit/No Credit)
- **1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice**
  - **Year 2:**
    - **DEN1070H Advances in Dental Materials Science** (0.5 FCE)
    - **DEN4013Y Clinical Pediatric Dentistry II** (Credit/No Credit; 1.0 FCE)
    - **DEN4012Y Pediatric Dentistry Theory II** (Credit/No Credit; 1.0 FCE)
    - **DEN4202Y Pediatric Dentistry Journal/Literature Review II** (Credit/No Credit; 1.0 FCE)
    - **DEN4802Y Orthodontics for Pediatric Dentistry II** (Credit/No Credit; 1.0 FCE)
    - **PDE9094Y Clinical Conferences** (Credit/No Credit; 1.0 FCE)
  - **Year 3:**
    - **DEN4014Y Clinical Pediatric Dentistry III** (Credit/No Credit; 1.0 FCE)
    - **DEN4013Y Pediatric Dentistry Theory III** (Credit/No Credit; 1.0 FCE)
    - **DEN4203Y Pediatric Dentistry Journal/Literature Review III** (Credit/No Credit; 1.0 FCE)
    - **DEN4803Y Orthodontics for Pediatric Dentistry III** (Credit/No Credit; 1.0 FCE)
    - Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.
  - **Residency.** Students must be on campus and participating for the duration of their registration in the program.

### Program Length

10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

### Time Limit

4 years full-time

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**Course that may continue over a program. Credit is given when the course is completed.**

**Course is offered in alternate years.**

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### Dentistry: Dentistry MSc (Periodontics Specialty)

#### MSc Program (Periodontics Specialty)

**Program Description**

The Dentistry MSc, Periodontics specialty is a three-year full-time program. The specialty in Periodontics is concerned with the diagnosis, prevention, and treatment of diseases and conditions of the supporting and surrounding tissues of the teeth or their substitutes and the maintenance of the health, function, and aesthetics of these structures and tissues.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty.

Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

#### MSc Program (Periodontics Specialty): Thesis-Only Option

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Students must successfully complete a total of **2.0 full-course equivalents (FCEs) and a thesis** as follows:
  - **Year 1:**
    - **DEN1010H Research Ethics** (Credit/No Credit; 0.5 FCE)
    - **DEN1015H Introduction to Biostatistics** (0.5 FCE)
    - **DEN1101H Introduction to Research Methods and Dissemination** (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - **DEN1001H Graduate Research Dissemination Seminars** (Credit/No Credit; 0.5 FCE)
- In the **specialty of Periodontics**, complete **18.0 required FCEs** as follows. Students have the option to take **DEN1008H Cone Beam CT Imaging** (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
MSc Program (Periodontics Specialty): Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  
  **Year 1:**
  - DEN1007H Oral Radiology (0.5 FCE)
  - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - DEN1033Y Periodontology: Seminars and Clinics I (1.0 FCE)
  - DEN1070H** Advances in Dental Materials Science (0.5 FCE)
  - DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (Credit/No Credit; 0.5 FCE)
  - DEN6061Y Literature Review in Periodontics I (1.0 FCE)
  - DEN6091Y Principles and Practice of Periodontics I (1.0 FCE)
  - Begin thesis research (RST9999Y)

  **Year 2:**
  - DEN1002H Oral Pathology (0.5 FCE)
  - DEN1022H Investigating Pathogenic Biofilms (0.5 FCE)
  - DEN1034Y Periodontology: Seminars and Clinics II (1.0 FCE)
  - DEN1091Y Parenteral Moderate Sedation for Dental Procedures (Credit/No Credit; 1.0 FCE)
  - DEN6062Y Literature Review in Periodontics II (1.0 FCE)
  - DEN6071Y Clinical Case Presentation I (1.0 FCE)
  - DEN6081Y Biomaterials and Implant/Reconstructive Dentistry I (1.0 FCE)
  - DEN6092Y Principles and Practice of Periodontics II (1.0 FCE)
  - PDE9094Y<sup>0</sup> Clinical Conferences (Credit/No Credit)
  - Continue with thesis research (RST9999Y)

  **Year 3:**
  - DEN1035Y Periodontology: Seminars and Clinics III (1.0 FCE)
  - DEN1311Y Oral Surgical Pathology (1.0 FCE)
  - DEN6072Y Clinical Case Presentation II (1.0 FCE)
  - DEN6082Y Biomaterials and Implant/Reconstructive Dentistry II (1.0 FCE)
  - DEN6093Y Principles and Practice of Periodontics III (1.0 FCE)
  - PDE9094Y<sup>0</sup> Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Oral defence of the written thesis (RST9999Y).

- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

- 10 sessions full-time (typical registration sequence: S/F/W/S/F/W/S/F/W/S)

Time Limit

- 4 years full-time

<sup>0</sup> Course that may continue over a program. Credit is given when the course is completed.

<sup>**</sup> Course is offered in alternate years.
Dentistry: Dentistry MSc (Prosthodontics Specialty)

MSc Program (Prosthodontics Specialty)

Program Description

The Dentistry MSc program, Prosthodontics specialty is a three-year full-time program. The specialty in Prosthodontics is concerned with the diagnosis, restoration, and maintenance of oral function, comfort, appearance, and health of the patient by the restoration of the natural teeth and/or the replacement of missing teeth and contiguous oral and maxillofacial tissues with artificial substitutes.

Upon completion of all program requirements, students are eligible for the MSc degree and certification in the chosen dental specialty. Note: coursework-only students are ineligible to enrol in the PhD in Dentistry program at a later date.

MSc Program (Prosthodontics Specialty): Thesis-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Doctor of Dental Surgery (DDS) or an equivalent degree with at least a B+ standing (3.3 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - **Year 2:**
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Prosthodontics, complete 20.0 required FCEs as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - **Year 1:**
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1016H++ Occlusion: Function and Dysfunction (0.5 FCE)
    - DEN1017H++ Temporomandibular Disorders (0.5 FCE)
    - DEN1042Y Prosthodontics II: Key Concepts in Prosthodontics and Laboratory Management (1.0 FCE)
    - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
    - DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (0.5 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
    - DEN7011Y Prosthodontic Treatment Planning (1.0 FCE)
    - DEN7031Y Prosthodontic Topical Seminars I (1.0 FCE)
    - DEN7041Y Prosthodontic Current Literature I (1.0 FCE)
    - DEN7051Y Prosthodontics and Implant Surgery I (1.0 FCE)
    - DEN7061Y Clinical Prosthodontics I (1.0 FCE)
    - Begin thesis research (RST9999Y)
  - **Year 2:**
    - DEN1070H++ Advances in Dental Materials Sciences (0.5 FCE)
    - DEN7012Y Prosthodontic Case Presentations I (1.0 FCE)
    - DEN7032Y Prosthodontic Topical Seminars II (1.0 FCE)
    - DEN7042Y Prosthodontic Current Literature II (1.0 FCE)
    - DEN7052Y Prosthodontics and Implant Surgery II (1.0 FCE)

Residency. Students must be on campus and participating for the duration of their registration in the program.
Program Requirements

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - **Year 2:**
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1001H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Prosthodontics, complete a total of 20.0 required FCEs, 1.5 elective FCEs, and a research practicum (0.5 FCE) as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

- **Year 1:**
  - DEN1007H Oral Radiology (0.5 FCE)
  - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - DEN1016H++ Occlusion: Function and Dysfunction (0.5 FCE)
  - DEN1017H++ Temporomandibular Disorders (0.5 FCE)
  - DEN1042Y Prosthodontics II: Key Concepts in Prosthodontics and Laboratory Management (1.0 FCE)
  - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
  - DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (0.5 FCE)
  - DEN3005H Head and Neck Anatomy (0.5 FCE)
  - DEN7011Y Prosthodontic Treatment Planning (1.0 FCE)
  - DEN7031Y Prosthodontic Topical Seminars I (1.0 FCE)
  - DEN7041Y Prosthodontic Current Literature I (1.0 FCE)
  - DEN7051Y Prosthodontics and Implant Surgery I (1.0 FCE)
  - DEN7061Y Clinical Prosthodontics I (1.0 FCE)
  - 1.5 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice

- **Year 2:**
  - DEN1070H++ Advances in Dental Materials Sciences (0.5 FCE)
  - DEN7012Y Prosthodontic Case Presentations I (1.0 FCE)
  - DEN7032Y Prosthodontic Topical Seminars II (1.0 FCE)
  - DEN7042Y Prosthodontic Current Literature II (1.0 FCE)
  - DEN7052Y Prosthodontics and Implant Surgery II (1.0 FCE)
  - DEN7062Y Clinical Prosthodontics II (1.0 FCE)

- **Year 3:**
  - DEN7013Y Prosthodontic Case Presentations II (1.0 FCE)
  - DEN7033Y Prosthodontic Topical Seminars III (1.0 FCE)
  - DEN7043Y Prosthodontic Current Literature III (1.0 FCE)
  - DEN7063Y Clinical Prosthodontics III (1.0 FCE)
  - PDE9094Y0 Clinical Conferences (Credit/No Credit; 0.5 FCE)
  - Prepare a research practicum (DEN1061H; 0.5 FCE); successfully complete an oral examination.

**Residency.** Students must be on campus and participating for the duration of their registration in the program.

Program Length

9 sessions full-time (typical registration sequence: F/W/S/F/W/S/F/W/S)

Time Limit

4 years full-time
Course that may continue over a program. Credit is given when the course is completed.

**Course is offered in alternate years.

Dentistry: Dentistry PhD (Dental Biomedical Sciences Field)

PhD Program (Dental Biomedical Sciences Field)

Program Description

The Dentistry PhD, Dental Biomedical Sciences field is intended for those whose career goal is to work at the forefront of their field in oral health sciences as an independent research scientist in an academic, governmental, or industrial setting. Completion of the PhD may take longer than the indicated program length below.

PhD Program (Dental Biomedical Sciences Field)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Dentistry's additional admission requirements stated below.
- Students are normally admitted to a PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university. Students may also be admitted with an appropriate master's degree in a discipline appropriate to the intended field of doctoral study.

Program Requirements

- Students undertake customized programs, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student's coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of **2.0 required full-course equivalents (FCEs)**, **2.0 elective FCEs**, and a thesis as follows:
  - **Year 1:**
    - DEN1010H *Research Ethics* (Credit/No Credit; 0.5 FCE)
    - DEN1015H *Introduction to Biostatistics* (0.5 FCE)
    - DEN1101H *Introduction to Research Methods and Dissemination* (Credit/No Credit; 0.5 FCE)
    - Develop a **thesis proposal**, form a **supervisory committee**, and complete an **ethics review** (if applicable)
  - **Years 1 to 4:**
    - DEN1100H* Graduate Research Dissemination Seminars* (Credit/No Credit; 0.5 FCE)
  - **Year 2:**
    - 2.0 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
    - Successfully pass a **qualifying oral examination** between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
    - Continue with thesis research (RST9999Y)
  - **Year 3:**
    - Continue with thesis research (RST9999Y)
  - **Year 4:**
    - Complete any outstanding coursework
    - Continue with thesis research (RST9999Y)
  - **Year 5:** Successfully submit and defend the thesis at the **Doctoral Final Oral Examination**.
- Participate in all graduate research activities of the advisor's research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- **Residency.** Students must meet a minimum residency requirement of one year, though it is the Faculty of Dentistry's expectation that students will normally remain on campus for four years.

Program Length

5 years

Time Limit

7 years

Transfer Requirements

- Highly qualified MSc students may be considered for transfer to the PhD program. MSc students who transfer to the PhD program must fulfill the admission requirements listed under the PhD program and successfully complete the transfer examination.

Program Requirements

- Students undertake customized programs, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student's coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

PhD Program (Dental Biomedical Sciences): Transfer
Students must successfully complete a total of **2.0 full-course equivalents (FCEs)**, **2.0 elective FCEs**, and a **thesis** as follows:

- **Year 1:**
  - **DEN1100H** *Graduate Research Dissemination Seminars* (Credit/No Credit; 0.5 FCE)

- **Year 2:**
  - 2.0 elective FCEs in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Successfully pass a **transfer examination** between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- **Year 3:**
  - Continue with thesis research (RST9999Y)

- **Year 4:**
  - Complete any outstanding coursework
  - Continue with thesis research (RST9999Y)

- **Year 5:** Successfully submit and defend the thesis at the **Doctoral Final Oral Examination**.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- **Residency.** Students must meet a minimum residency requirement of one year, though it is the Faculty of Dentistry’s expectation that students will normally remain on campus for four years.

**Program Length**

- 5 years

**Time Limit**

- 7 years

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**Dentistry: Dentistry PhD (Dental Anaesthesia Specialty)**

**PhD Program (Dental Anaesthesia Specialty)**

**Program Description**

The PhD program, Dental Anaesthesia specialty is a six-year full-time program. The specialty in Dental Anaesthesia is designed to prepare dentists with a full range of sedation and anaesthetic techniques for dental patients, with the focus on deep sedation and general anaesthesia. The teaching facilities for this program are provided by the combined resources of Dental Anaesthesia in the Faculty of Dentistry and the Department of Anaesthesia in the Temerty Faculty of Medicine. Training is given both at the Faculty of Dentistry and at teaching hospitals affiliated with the University.

Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

**PhD Program (Dental Anaesthesia Specialty)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of **2.0 full-course equivalents (FCEs)** and a **thesis** as follows:
  - **Year 1:**
    - **DEN1010H** *Research Ethics* (Credit/No Credit; 0.5 FCE)
    - **DEN1015H** *Introduction to Biostatistics* (0.5 FCE)
    - **DEN1011H** *Introduction to Research Methods and Dissemination* (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - **DEN1100H** *Graduate Research Dissemination Seminars* (Credit/No Credit; 0.5 FCE)
- In the **specialty of Dental Anaesthesia**, complete **15.5 required FCEs and 1.0 elective FCE** as follows:
  - **Year 1:**
    - **DEN1014H** *Clinical Epidemiology and Evidence-Based Care* (0.5 FCE)
    - **DEN1055H** *Basic Principles of Anaesthesia* (0.5 FCE)
    - **DEN1056Y** *Basic Concepts in Clinical Medicine* (1.0 FCE)
    - **DEN1073Y** *Dental Anaesthesia Graduate Seminars* (1.0 FCE)
    - **DEN1074Y** *Foundations of Medicine as Applied to Dental Anaesthesia* (1.0 FCE)
DEN1076H* General Anaesthesia for Medical Procedures — Adult I (0.5 FCE)
DEN1078H* General Anaesthesia for Dental Procedures — Adult I (0.5 FCE)
DEN1084H* Experiences in Clinical Teaching I (Credit/No Credit; 0.5 FCE)
DEN1087Y Fundamentals of Dental Anaesthesia (1.0 FCE)
Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  • Year 2:
    ▪ DEN1052Y General Anaesthesia for Medical Procedures — Pediatric (1.0 FCE)
    ▪ DEN1071H* Medical Anaesthesia Seminars I (Credit/No Credit; 0.5 FCE)
    ▪ DEN1083Y Experiences in Clinical Medicine (1.0 FCE)
    ▪ DEN1085H* Experiences in Clinical Teaching II (Credit/No Credit; 0.5 FCE)
    ▪ DEN1088Y Fundamentals of Dental Anaesthesia II (1.0 FCE)
    ▪ PDE9094Y0 Clinical Conferences (Credit/No Credit)
    ▪ Continue with thesis research (RST9999Y)
    ▪ Successfully pass a qualifying oral examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  • Year 3:
    ▪ DEN1072H* Medical Anaesthesia Seminars II (Credit/No Credit; 0.5 FCE)
    ▪ DEN1075Y General Anaesthesia for Dental Procedures — Pediatric (1.0 FCE)
    ▪ DEN1077H General Anaesthesia for Medical Procedures — Adult II
    ▪ DEN1079H* General Anaesthesia for Dental Procedures — Adult II (0.5 FCE)
    ▪ DEN1086H* Experiences in Clinical Teaching III (Credit/No Credit; 0.5 FCE)
    ▪ DEN1089Y Fundamentals of Dental Anaesthesia III (1.0 FCE)
    ▪ PDE9094Y0 Clinical Conferences (Credit/No Credit; 1.0 FCE)
    ▪ Continue with thesis research (RST9999Y)
  • Years 4 and 5:
    ▪ 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
    ▪ Complete any outstanding core or specialty-specific coursework
    ▪ Continue with thesis research (RST9999Y)
  • Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.
  • Participate in all graduate research activities of the advisor’s research group.
  • Present at meetings and publish original research findings in a timely fashion.
  • Participate as a member of departmental and student committees as applicable.
  • Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length
6 years

Time Limit
8 years

° Course that may continue over a program. Credit is given when the course is completed.
* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

PhD Program (Dental Anaesthesia Specialty):
Transfer

Transfer Requirements
• Highly qualified MSc students in the thesis option may be considered for transfer to the PhD in Dentistry in the specialty of Dental Anaesthesia. MSc students who transfer to the PhD must fulfil the admission requirements listed under the PhD program and successfully complete the transfer examination.

Program Requirements
• Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students’ coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
• Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  • Year 1:
    ▪ DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    ▪ DEN1015H Introduction to Biostatistics (0.5 FCE)
    ▪ DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  • Years 2 and 3:
    ▪ DEN1100H0 Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
• In the specialty of Dental Anaesthesia, complete 15.5 required FCEs and 1.0 elective FCE as follows:
  • Year 1:
    ▪ DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    ▪ DEN1055H Basic Principles of Anaesthesia (0.5 FCE)
    ▪ DEN1056Y Basic Concepts in Clinical Medicine (1.0 FCE)
    ▪ DEN1073Y Dental Anaesthesia Graduate Seminars (1.0 FCE)
    ▪ DEN1074Y Foundations of Medicine as Applied to Dental Anaesthesia (1.0 FCE)
    ▪ DEN1076H+ General Anaesthesia for Medical Procedures — Adult I (0.5 FCE)
DEN1078H+ General Anaesthesia for Dental Procedures — Adult I (0.5 FCE)
DEN1084H+ Experiences in Clinical Teaching I (Credit/No Credit; 0.5 FCE)
DEN1087Y Fundamentals of Dental Anaesthesia (1.0 FCE)
Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

- Year 2:
  - DEN1052Y General Anaesthesia for Medical Procedures — Pediatric (1.0 FCE)
  - DEN1071H+ Medical Anaesthesia Seminars I (Credit/No Credit; 0.5 FCE)
  - DEN1083Y Experiences in Clinical Medicine (1.0 FCE)
  - DEN1085H+ Experiences in Clinical Teaching II (Credit/No Credit; 0.5 FCE)
  - DEN1088Y Fundamentals of Dental Anaesthesia II (1.0 FCE)
  - PDE9094Y0 Clinical Conferences (Credit/No Credit)
  - Continue with thesis research (RST9999Y)
  - Successfully pass a transfer examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and breadth of knowledge relative to the research project.

- Year 3:
  - DEN1072H+ Medical Anaesthesia Seminars II (Credit/No Credit; 0.5 FCE)
  - DEN1075Y General Anaesthesia for Dental Procedures — Pediatric (1.0 FCE)
  - DEN1077H General Anaesthesia for Medical Procedures — Adult II
  - DEN1079H+ General Anaesthesia for Dental Procedures — Adult II (0.5 FCE)
  - DEN1086H+ Experiences in Clinical Teaching III (Credit/No Credit; 0.5 FCE)
  - DEN1089Y Fundamentals of Dental Anaesthesia III (1.0 FCE)
  - PDE9094Y0 Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)

- Years 4 and 5:
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Time Limit
  - 8 years

- Course that may continue over a program. Credit is given when the course is completed.
- Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

**Dentistry: Dentistry PhD (Dental Public Health Specialty)**

**PhD Program (Dental Public Health Specialty)**

**Program Description**

The Dentistry PhD, Dental Public Health specialty is a five-year full-time program. This specialty consists of core subjects, with optional subjects chosen by students in consultation with the program director. Courses are given by the Faculty of Dentistry as well as other units, such as the Dalla Lana School of Public Health and the Institute of Health Policy, Management and Evaluation.

Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

**PhD Program (Dental Public Health Specialty)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Dentistry's additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - **Year 2:**
    - DEN1052Y General Anaesthesia for Medical Procedures — Pediatric (1.0 FCE)
    - DEN1071H+ Medical Anaesthesia Seminars I (Credit/No Credit; 0.5 FCE)
    - DEN1083Y Experiences in Clinical Medicine (1.0 FCE)
    - DEN1085H+ Experiences in Clinical Teaching II (Credit/No Credit; 0.5 FCE)
    - DEN1088Y Fundamentals of Dental Anaesthesia II (1.0 FCE)
    - PDE9094Y0 Clinical Conferences (Credit/No Credit)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a transfer examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and breadth of knowledge relative to the research project.

- **Year 3:**
  - DEN1072H+ Medical Anaesthesia Seminars II (Credit/No Credit; 0.5 FCE)
  - DEN1075Y General Anaesthesia for Dental Procedures — Pediatric (1.0 FCE)
  - DEN1077H General Anaesthesia for Medical Procedures — Adult II
  - DEN1079H+ General Anaesthesia for Dental Procedures — Adult II (0.5 FCE)
  - DEN1086H+ Experiences in Clinical Teaching III (Credit/No Credit; 0.5 FCE)
  - DEN1089Y Fundamentals of Dental Anaesthesia III (1.0 FCE)
  - PDE9094Y0 Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)

- **Years 4 and 5:**
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- **Year 6:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- **Time Limit**
  - 8 years

- Course that may continue over a program. Credit is given when the course is completed.
- Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

**Program Length**

6 years
In the specialty of Dental Public Health, complete 7.0 required FCEs and 1.0 elective FCE as follows:

**Year 1:**
- CHL5004H Introduction to Public Health Sciences (0.5 FCE)
- DEN1003H Preventive Dentistry (0.5 FCE)
- DEN1006Y Seminars in Dental Public Health (1.0 FCE)
- DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
- DEN1051Y Oral Epidemiology (1.0 FCE)
- DEN1063Y Practicum in Dental Public Health (1.0 FCE)
- PDE9094Y\(^0\) Clinical Conferences (Credit/No Credit; 0.5 FCE)
- Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

**Year 2:**
- DEN1064H Management Principles in Canadian Dental Health Organizations (0.5 FCE)
- 0.5 FCE chosen in the area of health policy or health economics based on the student’s clinical or research interests
- 0.5 FCE chosen in the area of public health based on the student’s clinical or research interests
- Continue with thesis research (RST9999Y)
- Successfully pass a qualifying oral examination between 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

**Years 3 and 4:**
- 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
- Complete any outstanding core or specialty-specific coursework
- Continue with thesis research (RST9999Y)

**Year 5:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

### Program Length

5 years

### Time Limit

7 years

\(^0\) Course that may continue over a program. The course is graded or credit is given when completed.

### PhD Program (Dental Public Health Specialty):

#### Transfer

**Transfer Requirements**

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Dental Public Health. MSc students who transfer to the PhD must fulfill the admission requirements listed under the PhD program and successfully complete the transfer examination.

**Program Requirements**

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  
  **Year 1:**
  - DEN1010H Introduction to Biostatistics (0.5 FCE)
  - DEN1015H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)

  **Year 2:**
  - DEN1100H\(^0\) Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE)

  **Year 3:**
  - 0.5 FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice

  **Year 4:**
  - 0.5 FCE in the area of public health based on the student’s clinical or research interests

- In the specialty of Dental Public Health, complete 7.0 required FCEs and 1.0 elective FCE as follows:
  
  **Year 1:**
  - CHL5004H Introduction to Public Health Sciences (0.5 FCE)
  - DEN1003H Preventive Dentistry (0.5 FCE)
  - DEN1006Y Seminars in Dental Public Health (1.0 FCE)
  - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - DEN1051Y Oral Epidemiology (1.0 FCE)
  - DEN1063Y Practicum in Dental Public Health (1.0 FCE)
  - PDE9094Y\(^0\) Clinical Conferences (Credit/No Credit; 1.0 FCE)

  **Year 2:**
  - DEN1064H Management Principles in Canadian Dental Health Organizations (0.5 FCE)
  - 0.5 FCE chosen in the area of health policy or health economics based on the student’s clinical or research interests
  - 0.5 FCE chosen in the area of public health based on the student’s clinical or research interests

  **Year 5:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

  - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
- Continue with thesis research (RST9999Y)
- Successfully pass a transfer examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- **Years 3 and 4:**
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- **Year 5:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor's research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

### Dentistry: Dentistry PhD (Endodontics Specialty)

**PhD Program (Endodontics Specialty)**

**Program Description**

The Dentistry PhD, Endodontics specialty is a six-year full-time program. This specialty is designed to provide students with opportunities to acquire excellent clinical skills and comprehension of the underlying biology. Its components include: patient care, providing all aspects of endodontic treatment; topic-specific and current literature seminars; clinical conferences; core curriculum courses; rotation programs; research at the MSc level, including application for funding, preparation of manuscripts for publication, presentation at national and international research forums; and guest lectures. Students must complete a dental clinic rotation as part of the Endodontics specialty requirements.

Great emphasis is placed on self-learning in all of the program's components. Students are encouraged to identify research topics, related to endodontic science or any other dental or non-dental scientific area. Through continual updating of courses and research schedules, the program aims to achieve a balanced platform of excellent specialty education and committed service to patients. Students are encouraged to join the Ontario Society of Endodontists, the Canadian Academy of Endodontics, and the American Association of Endodontists.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

**PhD Program (Endodontics Specialty)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Dentistry’s additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student's coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of **2.0 full-course equivalents (FCEs) and a thesis** as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - **Year 2:**
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Endodontics, complete **18.0 required FCEs and 1.0 elective FCE** as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - **Year 1:**
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1062H Pharmacology of Dental Therapeutics (0.5 FCE)
    - DEN1070H** Advances in Dental Materials Science (0.5 FCE)

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0. Course that may continue over a program. The course is graded or credit is given when completed.
- **DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures** (Credit/No Credit; 0.5 FCE)
- **DEN3005H Head and Neck Anatomy** (0.5 FCE)
- **DEN5005H+ Introduction to Graduate Endodontics** (0.5 FCE)
- **DEN5011Y Graduate Endodontics Case Presentation I** (1.0 FCE)
- **DEN5021Y Graduate Endodontics Topical Literature 1** (1.0 FCE)
- **DEN5031Y Endodontics Current Literature Seminar 1** (Credit/No Credit; 1.0 FCE)
- **DEN5091Y Endodontic Clinic 1** (Credit/No Credit; 1.0 FCE)
- **PDE9094Y° Clinical Conferences** (Credit/No Credit)
- Develop a **thesis proposal**, form a **supervisory committee**, and complete an **ethics review** (if applicable)

- **Year 2:**
  - **DEN1022H Investigating Pathogenic Biofilms** (0.5 FCE)
  - **DEN1060H Oral Physiology: Sensory and Neuromuscular Function** (0.5 FCE)
  - **DEN5004Y° Single Tooth Replacement with Implant Supported Prosthesis**
  - **DEN5012Y Graduate Endodontics Case Presentation II** (1.0 FCE)
  - **DEN5022Y Graduate Endodontics Topical Literature 2** (1.0 FCE)
  - **DEN5032Y Endodontics Current Literature Seminar 2** (Credit/No Credit; 1.0 FCE)
  - **DEN5092Y Endodontic Clinic 2** (Credit/No Credit; 1.0 FCE)
  - **PDE9094Y° Clinical Conferences** (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)
  - Successfully pass a **qualifying oral examination** between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- **Years 3 to 5:**
  - **DEN5004Y° Single Tooth Replacement with Implant Supported Prosthesis** (1.0 FCE)
  - **DEN5013Y Graduate Endodontics Case Presentation III** (1.0 FCE)
  - **DEN5033Y Endodontics Current Literature Seminar 3** (1.0 FCE)
  - **DEN5093Y Endodontic Clinic 3** (Credit/No Credit; 1.0 FCE)
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- **Year 6:** Successfully submit and defend the thesis at the **Doctoral Final Oral Examination**.

- **Program Length**
  - 6 years

- **Time Limit**
  - 8 years

° Course that may continue over a program. The course is graded or credit is given when completed.

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

** Course is offered in alternate years.

### PhD Program (Endodontics Specialty): Transfer

#### Transfer Requirements

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Endodontics. MSc students who transfer to the PhD must fulfill the admission requirements listed under the PhD program and successfully complete the transfer examination.

#### Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student's coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of **2.0 full-course equivalents (FCEs) and a thesis** as follows:
  - **Year 1:**
    - **DEN1010H Research Ethics** (Credit/No Credit; 0.5 FCE)
    - **DEN1015H Introduction to Biostatistics** (0.5 FCE)
  - **Year 2:**
    - **DEN1101H Introduction to Research Methods and Dissemination** (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - **DEN1100H Graduate Research Dissemination Seminars** (Credit/No Credit; 0.5 FCE)
  - In the **specialty of Endodontics**, complete **18.0 required FCEs and 1.0 elective FCE** as follows. Students have the option to take **DEN1008H Cone Beam CT Imaging** (Credit/No Credit; 0.25 FCE; prerequisite: **DEN1007H**), in addition to the total FCEs required for the specialty. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
    - **Year 1:**
      - **DEN1002H Oral Pathology** (0.5 FCE)
      - **DEN1007H Oral Radiology** (0.5 FCE)
      - **DEN1014H Clinical Epidemiology and Evidence-Based Care** (0.5 FCE)
      - **DEN1062H Pharmacology of Dental Therapeutics** (0.5 FCE)
- **DEN1070H** Advances in Dental Materials Science (0.5 FCE)
- **DEN1090H** Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (Credit/No Credit; 0.5 FCE)
- **DEN3005H** Head and Neck Anatomy (0.5 FCE)
- **DEN5005H** Introduction to Graduate Endodontics (0.5 FCE)
- **DEN5011Y** Graduate Endodontics Case Presentation I (1.0 FCE)
- **DEN5021Y** Graduate Endodontics Topical Literature 1 (1.0 FCE)
- **DEN5031Y** Endodontics Current Literature Seminar 1 (Credit/No Credit; 1.0 FCE)
- **DEN5091Y** Endodontic Clinic 1 (Credit/No Credit; 1.0 FCE)
- **PDE9094Y0** Clinical Conferences (Credit/No Credit)
- Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

- **Year 2:**
  - **DEN1022H** Investigating Pathogenic Biofilms (0.5 FCE)
  - **DEN1060H** Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
  - **DEN5004Y0** Single Tooth Replacement with Implant Supported Prosthesis
  - **DEN5012Y** Graduate Endodontics Case Presentation II (1.0 FCE)
  - **DEN5022Y** Graduate Endodontics Topical Literature 2 (1.0 FCE)
  - **DEN5032Y** Endodontics Current Literature Seminar 2 (Credit/No Credit; 1.0 FCE)
  - **DEN5092Y** Endodontic Clinic 2 (Credit/No Credit; 1.0 FCE)
  - **PDE9094Y0** Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)
  - Successfully pass a transfer examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- **Years 3 to 5:**
  - **DEN5004Y0** Single Tooth Replacement with Implant Supported Prosthesis (1.0 FCE)
  - **DEN5013Y** Graduate Endodontics Case Presentation III (1.0 FCE)
  - **DEN5033Y** Endodontics Current Literature Seminar 3 (Credit/No Credit; 1.0 FCE)
  - **DEN5093Y** Endodontic Clinic 3 (Credit/No Credit; 1.0 FCE)
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- **Year 6:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.
  - Participate in all graduate research activities of the advisor’s research group.
  - Present at meetings and publish original research findings in a timely fashion.
  - Participate as a member of departmental and student committees as applicable.

- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

**Program Length**

6 years

**Time Limit**

8 years

- Course that may continue over a program. The course is graded or credit is given when completed.
- Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
- Course is offered in alternate years.

**Dentistry: Dentistry PhD (Oral and Maxillofacial Pathology Specialty)**

**PhD Program (Oral and Maxillofacial Pathology Specialty)**

**Program Description**

The Dentistry PhD, Oral and Maxillofacial Pathology specialty is a six-year full-time program. The specialty in Oral and Maxillofacial Pathology focuses on the identification and management of diseases of the oral and maxillofacial regions through microscopic, clinical, biochemical, or other forms of examination. Oral and Maxillofacial Pathology includes histopathologic analysis of tissue samples, the investigation of causes, and effects of diseases.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

**PhD Program (Oral and Maxillofacial Pathology Specialty)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Dentistry’s additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.
Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - Year 2:
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE)

- In the specialty of Oral and Maxillofacial Pathology, complete 6.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - Year 1:
    - LMP1300Y General and Special Pathology (1.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  - Year 2:
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a qualifying oral examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  - Year 3:
    - DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
    - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    - Continue with thesis research (RST9999Y)
  - Years 4 and 5:
    - 1.0 elective FCE in clinical, epidemiological, or basic research methodology appropriate for clinical or public health practice
    - Complete any outstanding core or specialty-specific coursework
    - Continue with thesis research (RST9999Y)
  - Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.
- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

- 6 years

Time Limit

- 8 years

PhD Program (Oral and Maxillofacial Pathology Specialty): Transfer

Transfer Requirements

- Highly qualified MSc students, who are in the thesis option of the MSc program, may be considered for transfer to the Dentistry PhD in the specialty of Oral and Maxillofacial Pathology. MSc students who transfer to the PhD must fulfil the admission requirements listed under the PhD program and successfully complete the transfer examination.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - Year 2:
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

- In the specialty of Oral and Maxillofacial Pathology, complete 6.5 required FCEs and 1.0 elective FCE as follows:
  - Year 1:
    - LMP1300Y General and Special Pathology (1.0 FCE)
Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

- Year 2:
  - DEN1002H Oral Pathology (0.5 FCE)
  - DEN1007H Oral Radiology (0.5 FCE)
  - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
  - DEN1311Y Oral Surgical Pathology (1.0 FCE)
  - Continue with thesis research (RST9999Y)
  - Successfully pass a transfer examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- Year 3:
  - DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
  - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
  - Continue with thesis research (RST9999Y)

- Years 4 and 5:
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor's research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

6 years

Time Limit

8 years

Course that may continue over a program. Credit is given when the course is completed.

Dentistry: Dentistry PhD (Oral and Maxillofacial Pathology and Oral Medicine Specialty)

PhD Program (Oral and Maxillofacial Pathology and Oral Medicine Specialty)

Program Description

The Dentistry PhD, Oral and Maxillofacial Pathology and Oral Medicine specialty is a seven-year full-time program. The specialty in Oral and Maxillofacial Pathology and Oral Medicine is concerned with the diagnosis, nature, and primarily non-surgical management of oral, maxillofacial, and temporomandibular diseases and disorders, including dental management of patients with medical complications.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

PhD Program (Oral and Maxillofacial Pathology and Oral Medicine Specialty)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Dentistry's additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student's coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - Year 2:
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 4:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Oral and Maxillofacial Pathology and Oral Medicine, complete 11.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - Year 1:
    - LMP1300Y General and Special Pathology (1.0 FCE)
- Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

- **Year 2:**
  - DEN1002H Oral Pathology (0.5 FCE)
  - DEN1007H Oral Radiology (0.5 FCE)
  - DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
  - DEN1211Y Oral Medicine I (1.0 FCE)
  - DEN1311Y Oral Surgical Pathology (1.0 FCE)
  - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - Continue with thesis research (RST9999Y)
  - Successfully pass a qualifying oral examination within 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- **Year 3:**
  - DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)
  - DEN1212Y Oral Medicine II (1.0 FCE)
  - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
  - Continue with thesis research (RST9999Y)

- **Years 5 and 6:**
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- **Year 7:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

**PhD Program (Oral and Maxillofacial Pathology and Oral Medicine Specialty): Transfer**

**Transfer Requirements**

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Endodontics. MSc students who transfer to the PhD must fulfill the admission requirements listed under the PhD program and successfully complete the transfer examination.

**Program Requirements**

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - **Year 2:**
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 4:**
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

- In the specialty of Oral and Maxillofacial Pathology and Oral Medicine, complete 11.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - **Year 1:**
    - LMP1300Y General and Special Pathology (1.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable).
  - **Year 2:**
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1111Y Advanced Oral and Maxillofacial Pathology I (1.0 FCE)
    - DEN1211Y Oral Medicine I (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a transfer examination within 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  - **Year 3:**
    - DEN1112Y Advanced Oral and Maxillofacial Pathology II (1.0 FCE)

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**Program Length**

- 7 years

**Time Limit**

- 9 years

\[\text{Course that may continue over a program. The course is graded or credit is given when completed.}\]
PhD Program (Oral and Maxillofacial Radiology Specialty)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - Year 2:
    - DEN1011H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Oral and Maxillofacial Radiology, complete 8.5 required FCEs and 1.0 elective FCE as follows. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - Year 1:
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1017H++ Temporomandibular Disorders (0.5 FCE)
    - DEN1094Y Advanced Oral and Maxillofacial Radiology I (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
    - Mi Applied Physics modules taken through the Department of Medical Imaging in the Temerty Faculty of Medicine (0.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  - Year 2:
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1095Y Advanced Oral and Maxillofacial Radiology II (1.0 FCE)
    - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit)

Dentistry: Dentistry PhD (Oral and Maxillofacial Radiology Specialty)

PhD Program (Oral and Maxillofacial Radiology Specialty)

Program Description

The Dentistry PhD, Oral and Maxillofacial Radiology specialty, is a six-year full-time program. The specialty in Oral and Maxillofacial Radiology is concerned with the prescription, production, and interpretation of diagnostic images of diseases and disorders of the craniofacial complex.

Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen field of dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.
• Mi Applied Physics modules taken through the Department of Medical Imaging in the Temerty Faculty of Medicine (0.0 FCE)
• Clinical and Experimental Radiobiology modules taken through the Department of Radiation Oncology in the Temerty Faculty of Medicine (0.0 FCE)
• Continue with thesis research (RST9999Y)
• Successfully pass a qualifying oral examination within 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- Year 3:
  - DEN1096Y Advanced Oral and Maxillofacial Radiology III (1.0 FCE)
  - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Complete with thesis research (RST9999Y)

- Years 4 and 5:
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students’ coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - Year 2:
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

- In the specialty of Oral and Maxillofacial Radiology, complete 8.5 required FCEs and 1.0 elective FCE as follows. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - Year 1:
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1017H** Temporomandibular Disorders (0.5 FCE)
    - DEN1094Y Advanced Oral and Maxillofacial Radiology I (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
    - Mi Applied Physics modules taken through the Department of Medical Imaging in the Temerty Faculty of Medicine (0.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  - Year 2:
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1095Y Advanced Oral and Maxillofacial Radiology II (1.0 FCE)
    - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit)
    - Mi Applied Physics modules taken through the Department of Medical Imaging in the Temerty Faculty of Medicine (0.0 FCE)
    - Clinical and Experimental Radiobiology modules taken through the Department of Radiation Oncology in the Temerty Faculty of Medicine (0.0 FCE)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a transfer examination within 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  - Year 3:
    - DEN1096Y Advanced Oral and Maxillofacial Radiology III (1.0 FCE)
PhD Program (Oral and Maxillofacial Surgery Specialty)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defense of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student's coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 1, 3, and 4:**
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Oral and Maxillofacial Surgery, complete 20.5 required FCEs and 1.0 elective FCE as follows:
  - **Year 1:**
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - DEN2051Y Surgical Orthodontics I (1.0 FCE)
    - DEN3001Y Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
    - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
    - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
    - DEN3004Y Oral and Maxillofacial Surgery 4: Applied Surgical Anatomy of the Head and Neck (1.0 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
    - DEN3006H Bates' Guide to Physical Examination (0.5 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit)
    - Principles of Surgery module taken through the Department of Surgery in the Temerty Faculty of Medicine (0.0 FCE)

Dentistry: Dentistry PhD (Oral and Maxillofacial Surgery Specialty)

PhD Program (Oral and Maxillofacial Surgery Specialty)

Program Description

The Dentistry PhD, Oral and Maxillofacial Surgery specialty is a seven-year full-time program. The specialty in Oral and Maxillofacial Surgery is concerned with and includes the diagnosis and surgical and adjunctive treatment of disorders, diseases, injuries, and defects, involving the functional and aesthetic aspects of the hard and soft tissues of the oral and maxillofacial regions and related structures. Clinical activities are based primarily at Mt. Sinai Hospital, Sunnybrook Health Sciences Centre, Humber River Hospital, and The Hospital for Sick Children. There is also additional participation at other University-affiliated teaching centres: Holland Bloorview Kids Rehabilitation, Lakeview Health, and the Rouge Valley Health Network.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen field of dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.
Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

- **Year 2:**
  - DEN3001Y Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
  - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
  - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
  - Continue with thesis research (RST9999Y)
  - Successfully pass a qualifying oral examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

- **Year 3:**
  - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
  - DEN2052Y Surgical Orthodontics II (1.0 FCE)
  - DEN3001Y Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
  - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
  - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
  - DEN3004Y Oral and Maxillofacial Surgery 4: Applied Surgical Anatomy of the Head and Neck (1.0 FCE)
  - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)

- **Year 4:**
  - DEN2052Y Surgical Orthodontics II (audit only)
  - DEN3001Y Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
  - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
  - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
  - Continue with thesis research (RST9999Y)

- **Years 5 and 6:**
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or specialty-specific coursework
  - Continue with thesis research (RST9999Y)

- **Year 7:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

### Program Length

**Time Limit**

- 7 years
- 9 years

$^o$ Course that may continue over a program. Credit is given when the course is completed.

### PhD Program (Oral and Maxillofacial Surgery Specialty): Transfer

#### Transfer Requirements

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Oral and Maxillofacial Surgery. MSc students who transfer to the PhD must fulfill the admission requirements listed under the PhD program and successfully complete the transfer examination.

#### Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students’ coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Year 1, 3, and 4:**
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
  - In the specialty of Oral and Maxillofacial Surgery, complete 20.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
    - **Year 1:**
      - DEN1002H Oral Pathology (0.5 FCE)
      - DEN1007H Oral Radiology (0.5 FCE)
      - DEN2051Y Surgical Orthodontics I (1.0 FCE)
      - Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
      - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
      - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
- DEN3004Y Oral and Maxillofacial Surgery 4: Applied Surgical Anatomy of the Head and Neck (1.0 FCE)
- DEN3005H Head and Neck Anatomy (0.5 FCE)
- DEN3006H Bates’ Guide to Physical Examination (0.5 FCE)
- PDE90946 Clinical Conferences (Credit/No Credit)

  Principles of Surgery module taken through the Department of Surgery in the Temerty Faculty of Medicine (0.0 FCE)
- Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable).

  - **Year 2:**
    - DEN3001Y Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
    - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
    - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a transfer examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

  - **Year 3:**
    - DEN2052Y Surgical Orthodontics II (1.0 FCE)
    - DEN3001Y Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
    - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
    - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
    - DEN3004Y Oral and Maxillofacial Surgery 4: Applied Surgical Anatomy of the Head and Neck (1.0 FCE)
    - PDE90946 Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Continue with thesis research (RST9999Y)

  - **Year 4:**
    - DEN2052Y Surgical Orthodontics II (audit only)
    - DEN3001Y Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease (1.0 FCE)
    - DEN3002Y Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery (1.0 FCE)
    - DEN3003Y Oral and Maxillofacial Surgery 3: Evidence-Based Literature Reviews in Oral and Maxillofacial Surgery (1.0 FCE)
    - Continue with thesis research (RST9999Y)

  - **Years 5 and 6:**
    - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
    - Complete any outstanding core or specialty-specific coursework
    - Continue with thesis research (RST9999Y)

  - **Year 7:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

**Program Length**

7 years

**Time Limit**

9 years

6 Course that may continue over a program. Credit is given when the course is completed.

**Dentistry: Dentistry PhD (Oral Medicine Specialty)**

**PhD Program (Oral Medicine Specialty)**

**Program Description**

The Dentistry PhD, Oral Medicine specialty is a six-year full-time program. The specialty in Oral Medicine focuses on nonsurgical management of oral diseases including the management of oral mucosal and salivary gland diseases, temporomandibular disorders, and orofacial pain, the oral complications of systemic disease, and dental management of medically complex patients.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen field of dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

**PhD Program (Oral Medicine Specialty)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Applicants undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis.
After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 1 and 3:**
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE)

- In the specialty of Oral Medicine, complete 7.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - **Year 1:**
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1211Y Oral Medicine I (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  - **Year 2:**
    - DEN1212Y Oral Medicine II (1.0 FCE)
    - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a qualifying oral examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  - **Year 3:**
    - DEN1213Y Oral Medicine III (1.0 FCE)
    - DEN1313Y Advanced Oral Surgical Pathology II (1.0 FCE)
    - Continue with thesis research (RST9999Y)
  - **Years 4 and 5:**
    - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
    - Complete any outstanding core or specialty-specific coursework
    - Continue with thesis research (RST9999Y)
  - **Year 6:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

### Program Length
6 years

### Time Limit
8 years

*Course that may continue over a program. Credit is given when the course is completed.*

## PhD Program (Oral Medicine Specialty): Transfer

### Transfer Requirements

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Oral Medicine. MSc students who transfer to the PhD must fulfil the admission requirements listed under the PhD program and successfully complete the transfer examination.

### Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students’ coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 1 and 3:**
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE)

- In the specialty of Oral Medicine, complete 7.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - **Year 1:**
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1211Y Oral Medicine I (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  - **Year 2:**
    - DEN1212Y Oral Medicine II (1.0 FCE)
    - DEN1312Y Advanced Oral Surgical Pathology I (1.0 FCE)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a qualifying oral examination between 12 and 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  - **Year 3:**
    - DEN1213Y Oral Medicine III (1.0 FCE)
    - DEN1313Y Advanced Oral Surgical Pathology II (1.0 FCE)
    - Continue with thesis research (RST9999Y)
  - **Years 4 and 5:**
    - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
    - Complete any outstanding core or specialty-specific coursework
    - Continue with thesis research (RST9999Y)
  - **Year 6:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.
Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1100H0 Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Orthodontics and Dentofacial Orthopedics, complete 14.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - **Year 1:**
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
    - DEN2001Y Orthodontics 1: Advanced Orthodontic Diagnosis and Treatment Planning (1.0 FCE)
    - DEN2006Y Facial Growth and Facial Analysis (1.0 FCE)
    - DEN2010H Tissue Reaction to Orthodontic and Orthopedic Forces (0.5 FCE)
    - DEN2041H Interceptive Orthodontics Diagnosis and Etiology (0.5 FCE)
    - DEN2051Y Surgical Orthodontics I (1.0 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
  - **Years 2 and 3:**
    - Complete any outstanding core or specialty-specific coursework
    - Continue with thesis research (RST9999Y)
  - **Year 4 and 5:**
    - Complete any outstanding core or specialty-specific coursework
    - DEN1313Y
  - **Year 6:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

Program Description

The Dentistry PhD, Orthodontics and Dentofacial Orthopedics specialty is a six-year full-time program. The specialty in Orthodontics and Dentofacial Orthopedics is concerned with the supervision, guidance, and correction of the growing or mature dentofacial structures and the diagnosis, prevention, and treatment of any abnormalities associated with these structures.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen field of dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

PhD Program (Orthodontics and Dentofacial Orthopedics Specialty)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.
PhD Program (Orthodontics and Dentofacial Orthopedics Specialty): Transfer

Transfer Requirements

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Orthodontics and Dentofacial Orthopedics. MSc students who transfer to the PhD must fulfil the admission requirements listed under the PhD program and successfully complete the transfer examination.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students’ coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1015H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
    - DEN1014H Oral Radiology (0.5 FCE)
    - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
    - DEN2001Y Orthodontics 1: Advanced Orthodontic Diagnosis and Treatment Planning (1.0 FCE)
    - DEN2006Y Facial Growth and Facial Analysis (1.0 FCE)
    - DEN2041H Interceptive Orthodontics Diagnosis and Etiology (0.5 FCE)
    - DEN2051Y Surgical Orthodontics I (1.0 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
    - PDE9094Y◊ Clinical Conferences (Credit/No Credit)
  - **Year 2:**
    - DEN1100H◊ Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
  - **Years 2 and 3:**
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)

- In the specialty of Orthodontics and Dentofacial Orthopedics, complete 14.5 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - **Year 1:**
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
    - DEN2001Y Orthodontics 1: Advanced Orthodontic Diagnosis and Treatment Planning (1.0 FCE)
    - DEN2006Y Facial Growth and Facial Analysis (1.0 FCE)

Program Length

6 years

Time Limit

8 years

◊ Course that may continue over a program. Credit is given when the course is completed.

◊◊ Course is offered in alternate years.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
Dentistry: Dentistry PhD (Pediatric Dentistry Specialty)

PhD Program (Pediatric Dentistry Specialty)

Program Description

The Dentistry PhD, Pediatric Dentistry specialty is a six-year full-time program. Pediatric dentists provide primary and comprehensive preventive and therapeutic oral health diagnosis, care, and consultative expertise for infants and children through adolescence, including those of all ages with special care needs. The didactic program is centered at the Faculty of Dentistry, while the clinical program will be divided between the Faculty of Dentistry, the University-affiliated teaching hospitals and community-based Toronto Public Health dental clinic.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen field of dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

PhD Program (Pediatric Dentistry Specialty)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry’s additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).

Program Length

6 years

Time Limit

8 years

- Course that may continue over a program. Credit is given when the course is completed.
- Course is offered in alternate years.
In the specialty of Pediatric Dentistry, complete 23.0 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

- Year 1:
  - DEN1002H Oral Pathology (0.5 FCE)
  - DEN1003H Preventive Dentistry (0.5 FCE)
  - DEN1007H Oral Radiology (0.5 FCE)
  - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
  - DEN1062H Pharmacology of Dental Therapeutics (0.0 FCE)
  - DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (Credit/No Credit; 0.5 FCE)
  - DEN2007Y Craniofacial Anomalies (1.0 FCE)
  - DEN4003Y Pediatric Dentistry 3: Facial and Dental Growth and Development in Pediatric Dentistry (1.0 FCE)
  - DEN4004H Pediatric Dentistry 4: Child Behaviour Management (0.5 FCE)
  - DEN4006Y Pediatric Dentistry 6: Oral and Maxillofacial Surgery as Applied to Pediatric Dentistry (1.0 FCE)
  - DEN4007H Pediatric Dentistry 7: Therapy and Trauma (0.5 FCE)
  - DEN4009Y Pediatrics (1.0 FCE)
  - DEN4010Y Pediatric Medicine and Hospital Dentistry (1.0 FCE)
  - DEN4011Y Conscious Sedation and Anaesthesia in Pediatric Dentistry (1.0 FCE)
  - DEN4012Y Clinical Pediatric Dentistry I (Credit/No Credit; 1.0 FCE)
  - DEN4013Y Pediatric Dentistry Theory I (Credit/No Credit; 1.0 FCE)
  - DEN4201Y Pediatric Dentistry Journal/Literature Review I (Credit/No Credit; 0.5 FCE)
  - DEN4801Y Orthodontics for Pediatric Dentistry I (Credit/No Credit; 1.0 FCE)
  - PDE9094Y Clinical Conferences (Credit/No Credit)
  - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

- Year 2:
  - DEN1070H Advances in Dental Materials Science (0.5 FCE)
  - DEN4013Y Clinical Pediatric Dentistry II (Credit/No Credit; 1.0 FCE)
  - DEN4102Y Pediatric Dentistry Theory II (Credit/No Credit; 1.0 FCE)
  - DEN4202Y Pediatric Dentistry Journal/Literature Review II (Credit/No Credit; 1.0 FCE)
  - DEN4802Y Orthodontics for Pediatric Dentistry II (Credit/No Credit; 1.0 FCE)
  - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)

- Year 3:
  - DEN4014Y Clinical Pediatric Dentistry III (Credit/No Credit; 1.0 FCE)
  - DEN4103Y Pediatric Dentistry Theory III (Credit/No Credit; 1.0 FCE)
  - DEN4203Y Pediatric Dentistry Journal/Literature Review III (Credit/No Credit; 1.0 FCE)
  - DEN4803Y Orthodontics for Pediatric Dentistry III (Credit/No Credit; 1.0 FCE)
  - Continue with thesis research (RST9999Y)

- Years 4 and 5:
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or field-specific coursework
  - Continue with thesis research (RST9999Y)

- Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

Program Length
6 years

Time Limit
8 years

*Course that may continue over a program. Credit is given when the course is completed.*

**Course is offered in alternate years.

PhD Program (Pediatric Dentistry Specialty): Transfer Option

Transfer Requirements

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Pediatric Dentistry. MSc students who transfer to the PhD must fulfill the admission requirements listed under the PhD program and successfully complete the transfer examination.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students’ coursework and research programs, approve the course of study, and monitor
In the course equivalents (FCEs) and a thesis as follows:

### Year 1:
- **DEN1010H Research Ethics** (Credit/No Credit; 0.5 FCE)
- **DEN1015H Introduction to Biostatistics** (0.5 FCE)
- **DEN1101H Introduction to Research Methods and Dissemination** (Credit/No Credit; 0.5 FCE)

### Years 2 and 3:
- **DEN1100H Graduate Research Dissemination Seminars** (Credit/No Credit; 0.5 FCE)

In the specialty of Pediatric Dentistry, complete 23.0 required FCEs and 1.0 elective FCE as follows. Students have the option to take **DEN1008H Cone Beam CT Imaging** (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

### Year 1:
- **DEN1002H Oral Pathology** (0.5 FCE)
- **DEN1003H Preventive Dentistry** (0.5 FCE)
- **DEN1007H Oral Radiology** (0.5 FCE)
- **DEN1014H Clinical Epidemiology and Evidence-Based Care** (0.5 FCE)
- **DEN1062H Pharmacology of Dental Therapeutics** (0.0 FCE)
- **DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures** (Credit/No Credit; 0.5 FCE)
- **DEN2007Y Craniofacial Anomalies** (1.0 FCE)
- **DEN4003Y Pediatric Dentistry 3: Facial and Dental Growth and Development in Pediatric Dentistry** (1.0 FCE)
- **DEN4004H Pediatric Dentistry 4: Child Behaviour Management** (0.5 FCE)
- **DEN4006Y Pediatric Dentistry 6: Oral and Maxillofacial Surgery as Applied to Pediatric Dentistry** (1.0 FCE)
- **DEN4007H Pediatric Dentistry 7: Therapy and Trauma** (0.5 FCE)
- **DEN4009Y Pediatrics** (1.0 FCE)
- **DEN4010Y Pediatric Medicine and Hospital Dentistry** (1.0 FCE)
- **DEN4011Y Conscious Sedation and Anaesthesia in Pediatric Dentistry** (1.0 FCE)
- **DEN4012Y Clinical Pediatric Dentistry I** (Credit/No Credit; 1.0 FCE)
- **DEN4011Y Preclinical Dental Caries and Maxillofacial Surgery** (1.0 FCE)
- **DEN4014Y Pediatric Dentistry Theory I** (Credit/No Credit; 1.0 FCE)
- **DEN4203Y Pediatric Dentistry Journal/Literature Review II** (Credit/No Credit; 1.0 FCE)
- **DEN4802Y Pediatric Dentistry Journal/Literature Review III** (Credit/No Credit; 1.0 FCE)
- **DEN4803Y Orthodontics for Pediatric Dentistry III** (Credit/No Credit; 1.0 FCE)
- **DEN4804Y Orthodontics for Pediatric Dentistry IV** (Credit/No Credit; 1.0 FCE)

### Year 2:
- **DEN1070H Advances in Dental Materials Science** (0.5 FCE)
- **DEN4013Y Clinical Pediatric Dentistry II** (Credit/No Credit; 1.0 FCE)
- **DEN4020Y Pediatric Dentistry Theory II** (Credit/No Credit; 1.0 FCE)

### Year 3:
- **PDE9094Y Clinical Conferences** (Credit/No Credit; 1.0 FCE)
- **DEN4007H Craniofacial Anomalies** (1.0 FCE)
- **DEN4010Y Pediatric Medicine and Hospital Dentistry** (1.0 FCE)
- **DEN4011Y Conscious Sedation and Anaesthesia in Pediatric Dentistry** (1.0 FCE)
- **DEN4012Y Clinical Pediatric Dentistry I** (Credit/No Credit; 1.0 FCE)
- **DEN4011Y Preclinical Dental Caries and Maxillofacial Surgery** (1.0 FCE)
- **DEN4014Y Pediatric Dentistry Theory I** (Credit/No Credit; 1.0 FCE)
- **DEN4203Y Pediatric Dentistry Journal/Literature Review II** (Credit/No Credit; 1.0 FCE)
- **DEN4802Y Pediatric Dentistry Journal/Literature Review III** (Credit/No Credit; 1.0 FCE)
- **DEN4803Y Orthodontics for Pediatric Dentistry III** (Credit/No Credit; 1.0 FCE)
- **DEN4804Y Orthodontics for Pediatric Dentistry IV** (Credit/No Credit; 1.0 FCE)

### Year 4 and 5:
- **1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice**
- **Complete any outstanding core or field-specific coursework**
- **Continue with thesis research (RST9999Y)**

### Year 6:
- Successfully submit and defend the thesis at the **Doctoral Final Oral Examination**.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.

- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

**Program Length**

6 years

**Time Limit**

8 years

0 Course that may continue over a program. Credit is given when the course is completed.

**++ Course is offered in alternate years.**

**Dentistry: Dentistry PhD (Periodontics Specialty)**

**PhD Program (Periodontics Specialty)**

**Program Description**

The Dentistry PhD, Periodontics specialty is a six-year full-time program.
The specialty in Periodontics is concerned with the diagnosis, prevention, and treatment of diseases and conditions of the supporting and surrounding tissues of the teeth or their substitutes and the maintenance of the health, function, and aesthetics of these structures and tissues.

Students start the program in the Summer session. Upon completion of all program requirements, students are eligible for the PhD degree and certification in the chosen field of dental specialty. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

**PhD Program (Periodontics Specialty)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Dentistry's additional admission requirements stated below.
- Students are normally admitted to the PhD program with a Doctor of Dental Surgery (DDS) or equivalent, with at least an A– standing (3.7 out of 4.0 grade point average [GPA]) in the final year from a recognized university.

**Program Requirements**

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student’s coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - **Years 2 and 3:**
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE)
- In the *specialty of Periodontics*, complete 18.0 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty. Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.
  - **Year 1:**
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1033Y Periodontology: Seminars and Clinics I (1.0 FCE)
    - DEN1070H** Advances in Dental Materials Science (0.5 FCE)
  - **Year 2:**
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1022H Investigating Pathogenic Biofilms (0.5 FCE)
    - DEN1034Y Periodontology: Seminars and Clinics II (1.0 FCE)
    - DEN1091Y Parenteral Moderate Sedation for Dental Procedures (Credit/No Credit; 1.0 FCE)
    - DEN6062Y Literature Review in Periodontics I (1.0 FCE)
    - DEN6071Y Clinical Case Presentation I (1.0 FCE)
    - DEN6081Y Biomaterials and Implant/Reconstructive Dentistry I (1.0 FCE)
    - DEN6092Y Principles and Practice of Periodontics II (1.0 FCE)
    - PDE9094Y0 Clinical Conferences (Credit/No Credit)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a qualifying oral examination within 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  - **Year 3:**
    - DEN1035Y Periodontology: Seminars and Clinics III (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - DEN6072Y Clinical Case Presentation II (1.0 FCE)
    - DEN6082Y Biomaterials and Implant/Reconstructive Dentistry II (1.0 FCE)
    - DEN6093Y Principles and Practice of Periodontics III (1.0 FCE)
    - PDE9094Y0 Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Continue with thesis research (RST9999Y)
  - **Years 4 and 5:**
    - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
    - Complete any outstanding core or field-specific coursework
    - Continue with thesis research (RST9999Y)
  - **Year 6:** Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- **Residency.** Students must be on campus and participating for the duration of their registration in the program.

**Program Length**

6 years
PhD Program (Periodontics Specialty): Transfer

Transfer Requirements

- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Periodontics. MSc students who transfer to the PhD must fulfil the admission requirements listed under the PhD program and successfully complete the transfer examination.

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students’ coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Years 2 and 3:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
  - In the specialty of Periodontics, complete 18.0 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

- Time Limit
  - 8 years

- Course that may continue over a program. Credit is given when the course is completed.

- Course is offered in alternate years.

- Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  - Year 2:
    - DEN1002H Oral Pathology (0.5 FCE)
    - DEN1022H Investigating Pathogenic Biofilms (0.5 FCE)
    - DEN1034Y Periodontology: Seminars and Clinics II (1.0 FCE)
    - DEN1091Y Parenteral Moderate Sedation for Dental Procedures (Credit/No Credit; 1.0 FCE)
    - DEN6062Y Literature Review in Periodontics II (1.0 FCE)
    - DEN6071Y Clinical Case Presentation I (1.0 FCE)
    - DEN6081Y Biomaterials and Implant/Reconstructive Dentistry I (1.0 FCE)
    - DEN6092Y Principles and Practice of Periodontics II (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a transfer examination within 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
  - Year 3:
    - DEN1035Y Periodontology: Seminars and Clinics III (1.0 FCE)
    - DEN1311Y Oral Surgical Pathology (1.0 FCE)
    - DEN6072Y Clinical Case Presentation II (1.0 FCE)
    - DEN6082Y Biomaterials and Implant/Reconstructive Dentistry II (1.0 FCE)
    - DEN6093Y Principles and Practice of Periodontics III (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Continue with thesis research (RST9999Y)
  - Years 4 and 5:
    - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
    - Complete any outstanding core or field-specific coursework
    - Continue with thesis research (RST9999Y)
  - Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.

- Participate in all graduate research activities of the advisor's research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length

- 6 years

Time Limit

- 8 years
PhD Program (Prosthodontics Specialty)

Program Requirements

- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange the student's coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - **Year 1:**
    - DEN1010H Introduction to Biostatistics (0.5 FCE)
    - DEN1015H Introduction to Research Methods and Dissemination (0.5 FCE)
  - **Year 2:**
    - DEN1101H Prosthodontic Case Presentations I (1.0 FCE)
    - DEN7031Y Prosthodontic Topical Seminars I (1.0 FCE)
    - DEN7041Y Prosthodontic Current Literature I (1.0 FCE)
    - DEN7051Y Prosthodontics and Implant Surgery I (1.0 FCE)
    - DEN7061Y Clinical Prosthodontics I (1.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)

**Terms 2 and 3:**
- DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE)
- In the specialty of Prosthodontics, complete 20.0 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.

Note: course timing may vary between years. Please contact gradstudies@dentistry.utoronto.ca for details.

**Year 2:**
- DEN1070H Advances in Dental Materials Sciences (0.5 FCE)
- DEN7012Y Prosthodontic Case Presentations I (1.0 FCE)
- DEN7032Y Prosthodontic Topical Seminars II (1.0 FCE)
- DEN7042Y Prosthodontic Current Literature II (1.0 FCE)
- DEN7052Y Prosthodontics and Implant Surgery II (1.0 FCE)
- DEN7062Y Clinical Prosthodontics II (1.0 FCE)
- Continue with thesis research (RST9999Y)
- Successfully pass a qualifying oral examination within 12 to 24 months to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and their breadth of knowledge relative to the research project.

**Year 3:**
- DEN7013Y Prosthodontic Case Presentations II (1.0 FCE)
- DEN7033Y Prosthodontic Topical Seminars III (1.0 FCE)
- DEN7043Y Prosthodontic Current Literature III (1.0 FCE)
- DEN7063Y Clinical Prosthodontics III (1.0 FCE)
- PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
- Continue with thesis research (RST9999Y)
- Years 4 and 5:
  - 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
  - Complete any outstanding core or field-specific coursework
  - Continue with thesis research (RST9999Y)
- Year 6: Successfully submit and defend the thesis at the Doctoral Final Oral Examination.
- Participate in all graduate research activities of the advisor's research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length
6 years

Time Limit
8 years

- Course that may continue over a program. Credit is given when the course is completed.
- ** Course is offered in alternate years.

PhD Program (Prosthodontics Specialty): Transfer

Transfer Requirements
- Highly qualified MSc students in the thesis option may be considered for transfer to the Dentistry PhD in the specialty of Prosthodontics. MSc students who transfer to the PhD must fulfill the admission requirements listed under the PhD program and successfully complete the transfer examination.

Program Requirements
- Students undertake a customized program, approved by an advisory committee and the Associate Dean, Graduate Education, comprising advanced study and original research culminating in the defence of a thesis. After consultation with the Associate Dean, Graduate Education, a committee will be appointed to plan and arrange students' coursework and research programs, approve the course of study, and monitor progress as part of an annual report to the Associate Dean for approval and continuance of candidacy.
- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) and a thesis as follows:
  - Year 1:
    - DEN1010H Research Ethics (Credit/No Credit; 0.5 FCE)
    - DEN1015H Introduction to Biostatistics (0.5 FCE)
  - Year 2:
    - DEN1101H Introduction to Research Methods and Dissemination (Credit/No Credit; 0.5 FCE)
  - Year 3:
    - DEN1100H Graduate Research Dissemination Seminars (Credit/No Credit; 0.5 FCE).
- In the specialty of Prosthodontics, complete 20.0 required FCEs and 1.0 elective FCE as follows. Students have the option to take DEN1008H Cone Beam CT Imaging (Credit/No Credit; 0.25 FCE; prerequisite: DEN1007H), in addition to the total FCEs required for the specialty.
  - Year 1:
    - DEN1007H Oral Radiology (0.5 FCE)
    - DEN1014H Clinical Epidemiology and Evidence-Based Care (0.5 FCE)
    - DEN1016H Occlusion: Function and Dysfunction (0.5 FCE)
    - DEN1017H Temporomandibular Disorders (0.5 FCE)
    - DEN1042Y Prosthodontics II: Key Concepts in Prosthodontics and Laboratory Management (1.0 FCE)
    - DEN1060H Oral Physiology: Sensory and Neuromuscular Function (0.5 FCE)
    - DEN1090H Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (0.5 FCE)
    - DEN3005H Head and Neck Anatomy (0.5 FCE)
    - DEN7011Y Prosthodontic Treatment Planning (1.0 FCE)
    - DEN7031Y Prosthodontic Topical Seminars I (1.0 FCE)
    - DEN7041Y Prosthodontic Current Literature I (1.0 FCE)
    - DEN7051Y Prosthodontics and Implant Surgery I (1.0 FCE)
    - DEN7061Y Clinical Prosthodontics I (1.0 FCE)
    - Develop a thesis proposal, form a supervisory committee, and complete an ethics review (if applicable)
  - Year 2:
    - DEN1070H Advances in Dental Materials Sciences (0.5 FCE)
    - DEN7012Y Prosthodontic Case Presentations I (1.0 FCE)
    - DEN7032Y Prosthodontic Topical Seminars II (1.0 FCE)
    - DEN7042Y Prosthodontic Current Literature II (1.0 FCE)
    - DEN7052Y Prosthodontics and Implant Surgery II (1.0 FCE)
    - DEN7062Y Clinical Prosthodontics II (1.0 FCE)
    - Continue with thesis research (RST9999Y)
    - Successfully pass a transfer examination to demonstrate an adequate capacity for oral health sciences research through previous work. Students will be examined on their thesis proposal and breadth of knowledge relative to the research project.
  - Year 3:
    - DEN7013Y Prosthodontic Case Presentations II (1.0 FCE)
    - DEN7033Y Prosthodontic Topical Seminars III (1.0 FCE)
    - DEN7043Y Prosthodontic Current Literature III (1.0 FCE)
    - DEN7063Y Clinical Prosthodontics III (1.0 FCE)
    - PDE9094Y Clinical Conferences (Credit/No Credit; 1.0 FCE)
    - Continue with thesis research (RST9999Y)
Years 4 and 5:
- 1.0 elective FCE in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice
- Complete any outstanding core or field-specific coursework
- Continue with thesis research (RST9999Y)

Year 6:
- Successfully submit and defend the thesis at the Doctoral Final Oral Examination.
- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in a timely fashion.
- Participate as a member of departmental and student committees as applicable.
- Residency. Students must be on campus and participating for the duration of their registration in the program.

Program Length
6 years

Time Limit
8 years

Course that may continue over a program. Credit is given when the course is completed.

**Course is offered in alternate years.

Dentistry: Dentistry MSc, PhD Courses

Not all courses are offered every year. The Faculty of Dentistry should be consulted each session as to course offerings. Required courses vary by specialty. Please contact the Graduate Department for details.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>DEN1001Y</td>
<td>Seminars in Oral Health Sciences (Credit/No Credit)</td>
</tr>
<tr>
<td>DEN1010H</td>
<td>Research Ethics (Credit/No Credit)</td>
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<tr>
<td>DEN1015H</td>
<td>Introduction to Biostatistics</td>
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<tr>
<td>DEN1100Y</td>
<td>Seminars in Oral Health Sciences (Credit/No Credit)</td>
</tr>
<tr>
<td>DEN1101H</td>
<td>Introduction to Research Methods and Dissemination (Credit/No Credit)</td>
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Courses for Students in MSc or PhD Dental Specialties

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<tr>
<td>CHL5004H</td>
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<td>DEN1002H</td>
<td>Oral Pathology</td>
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<td>Preventive Dentistry</td>
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<tr>
<td>DEN1006Y</td>
<td>Seminars in Dental Public Health</td>
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<td>DEN1007H</td>
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<tr>
<td>DEN1008H</td>
<td>Cone Beam CT Imaging (Credit/No Credit) (prerequisite: DEN1007H)</td>
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<tr>
<td>DEN1014H</td>
<td>Clinical Epidemiology and Evidence-Based Care</td>
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<tr>
<td>DEN1016H</td>
<td>Occlusion: Function and Dysfunction</td>
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<tr>
<td>DEN1017H</td>
<td>Temporomandibular Disorders</td>
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<tr>
<td>DEN1022H</td>
<td>Investigating Pathogenic Biofilms</td>
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<td>DEN1033Y</td>
<td>Periodontology: Seminars and Clinics I</td>
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<td>DEN1034Y</td>
<td>Periodontology: Seminars and Clinics II</td>
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<td>DEN1035Y</td>
<td>Periodontology: Seminars and Clinics III</td>
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<td>DEN1042Y</td>
<td>Prosthodontics II: Restorative Dentistry</td>
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<td>Oral Epidemiology</td>
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<td>DEN1052Y</td>
<td>General Anaesthesia for Medical Procedures — Pediatric</td>
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<tr>
<td>DEN1055H</td>
<td>Basic Principles of Dental Anaesthesia</td>
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<tr>
<td>DEN1056Y</td>
<td>Basic Concepts in Clinical Medicine</td>
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<tr>
<td>DEN1060H</td>
<td>Oral Physiology: Sensory and Neuromuscular Function</td>
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<td>DEN1061H</td>
<td>Research Practicum</td>
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<td>DEN1062H</td>
<td>Pharmacology of Dental Therapeutics</td>
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<td>Practicum in Dental Public Health</td>
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<td>DEN1064H</td>
<td>Management Principles in Canadian Dental Health Organizations</td>
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<td>DEN1070H</td>
<td>Advances in Dental Materials Science</td>
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<tr>
<td>DEN1071H+</td>
<td>Medical Anaesthesia Seminars I (Credit/No Credit)</td>
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<tr>
<td>DEN1072H+</td>
<td>Medical Anaesthesia Seminars II (Credit/No Credit)</td>
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<td>Dental Anaesthesia Graduate Seminars</td>
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<td>DEN1074Y</td>
<td>Foundations of Medicine as Applied to Dental Anaesthesia</td>
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<td>DEN1075Y</td>
<td>General Anaesthesia for Dentistry — Pediatric</td>
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<td>DEN1076H+</td>
<td>General Anaesthesia for Medical Procedures — Adult I (Credit/No Credit)</td>
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<td>General Anaesthesia for Medical Procedures — Adult II (Credit/No Credit)</td>
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</tr>
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<td>DEN1079H+</td>
<td>General Anaesthesia for Dental Procedures — Adult II (Credit/No Credit)</td>
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<td>DEN1083Y</td>
<td>Experiences in Clinical Medicine</td>
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<td>DEN1084H+</td>
<td>Experiences in Clinical Teaching I (Credit/No Credit)</td>
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<td>DEN1085H+</td>
<td>Experiences in Clinical Teaching II (Credit/No Credit)</td>
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<tr>
<td>DEN1086H+</td>
<td>Experiences in Clinical Teaching III (Credit/No Credit)</td>
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<td>DEN1087Y</td>
<td>Fundamentals of Dental Anaesthesia</td>
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<td>DEN1088Y</td>
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<td>DEN1089Y</td>
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<td>DEN1090H</td>
<td>Inhalation and Oral Minimal and Moderate Sedation for Dental Procedures (Credit/No Credit)</td>
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<td>DEN1091Y</td>
<td>Parenteral Moderate Sedation for Dental Procedures (Credit/No Credit)</td>
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<td>Advanced Oral Radiology I (corequisite: DEN1007H)</td>
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<td>DEN1095Y</td>
<td>Advanced Oral Radiology II (prerequisite: DEN1094Y)</td>
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<td>DEN1096Y</td>
<td>Advanced Oral Radiology III (prerequisite: DEN1095Y)</td>
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<td>DEN1111Y</td>
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<tr>
<td>DEN1112Y</td>
<td>Advanced Oral and Maxillofacial Pathology II</td>
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<td>DEN1113Y</td>
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<td>Oral Medicine I</td>
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<td>Orthodontics 1: Advanced Orthodontic Diagnosis and Treatment Planning</td>
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<td>DEN2002Y</td>
<td>Orthodontics 2: Biomechanics Orthodontic Technique and Practice Administration</td>
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<td>DEN2006Y</td>
<td>Facial Growth and Facial Analysis</td>
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<td>DEN2007Y</td>
<td>Craniofacial Anomalies</td>
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<td>DEN2010H</td>
<td>Tissue Reaction to Orthodontic and Orthopedic Forces</td>
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<td>DEN2011Y</td>
<td>Craniofacial Morphology and Development</td>
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<td>Interceptive Orthodontics Diagnosis and Etiology</td>
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<td>Interceptive Orthodontics Seminars on Interceptive and Early Treatment</td>
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<td>DEN2043H</td>
<td>Interceptive Orthodontics Management and Technique</td>
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<tr>
<td>DEN2051Y</td>
<td>Surgical Orthodontics I</td>
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<td>DEN3001Y</td>
<td>Oral and Maxillofacial Surgery 1: The Physiologic Basis of Disease</td>
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<td>Oral and Maxillofacial Surgery 2: Principles and Practice of Oral and Maxillofacial Surgery</td>
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<td>Head and Neck Anatomy</td>
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<td>DEN4004H</td>
<td>Pediatric Dentistry 4: Child Behaviour Management</td>
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<td>DEN4006Y</td>
<td>Pediatric Dentistry 6: Oral and Maxillofacial Surgery as Applied to Pediatric Dentistry</td>
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<td>Conscious Sedation and Anaesthesia in Pediatric Dentistry</td>
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<td>DEN4101Y</td>
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<td>DEN4202Y</td>
<td>Pediatric Dentistry Journal/Literature Review II (Credit/No Credit) (prerequisite: DEN4201Y)</td>
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<td>DEN4203Y</td>
<td>Pediatric Dentistry Journal/Literature Review III (Credit/No Credit) (prerequisites: DEN4201Y and DEN4202Y)</td>
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<td>DEN4802Y</td>
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<td>DEN4803Y</td>
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<td>DEN5021Y</td>
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<td>DEN5004Y</td>
<td>Single Tooth Replacements with Implant-Supported Prosthesis</td>
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<td>DEN5005H</td>
<td>Introduction to Graduate Endodontics</td>
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<td>DEN5091Y</td>
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<td>DEN6061Y</td>
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<td>DEN6081Y</td>
<td>Biomaterials and Implant/Reconstructive Dentistry I</td>
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<td>Research/Thesis</td>
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6 Course that may continue over a program. The course is graded or credit is given when completed.

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Drama, Theatre and Performance Studies

Drama, Theatre and Performance Studies: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Drama, Theatre and Performance Studies

MA and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Diaspora and Transnational Studies**
  - Drama, Theatre and Performance Studies, MA, PhD

- **Jewish Studies**
  - Drama, Theatre and Performance Studies, MA, PhD

- **Knowledge Media Design**
  - Drama, Theatre and Performance Studies, MA, PhD

- **Sexual Diversity Studies**
  - Drama, Theatre and Performance Studies, MA, PhD

- **South Asian Studies**
  - Drama, Theatre and Performance Studies, MA, PhD

- **Women and Gender Studies**
  - Drama, Theatre and Performance Studies, MA, PhD

Overview

The Centre for Drama, Theatre and Performance Studies offers graduate programs leading to the Master of Arts and Doctor of Philosophy degrees. The centre's own core courses focus on the program fields of dramaturgy, theatre history, and theory of drama. Within the parameters of these fields, the centre supports research in such areas as performance analysis and reception; Canadian, American, international, and intercultural theatre; Elizabethan and Restoration staging practices; historiography and performance; acting and modern staging theories and practices; performance aesthetics and politics; as well as play and project development.

A new aspect in the curriculum focuses on the impact of digital culture on theatre practice and research. Through affiliations with other graduate units, students may also take courses in drama, theatre, and performance from other departments, centres, and institutes across the University. Graduate students build on the foundation that would normally be laid in undergraduate studies with a concentration in theatre, drama, and performance studies. Performance practice is an integral part of graduate work in the centre and it takes place, for the most part, at the Robert Gill Theatre and the Luella Massey Studio Theatre.

For more information on application details, courses and faculty members, visit the departmental website.

Contact and Address

Web: [www.cdtsp.utoronto.ca](http://www.cdtsp.utoronto.ca)
General email: graduate.drama@utoronto.ca
Associate Director of Graduate Studies:
gc.graddrama@utoronto.ca
Telephone: (416) 978-7980

Centre for Drama, Theatre and Performance Studies
University of Toronto
UC Union Building
79 St. George Street
3rd Floor, Room 302
Toronto, Ontario M5S 2E5
Canada

Drama, Theatre and Performance Studies: Graduate Faculty

Full Members

Budde, Antje - PhD
Cobb, Michael - BA, MA, AM, PhD
Copeland, Nancy - BA, MA, PhD
Fan, Xing - PhD (Associate Director)
Freeman, Barry - BA, MA, PhD
Gallagher-Ross, Jacob - BA, MFA, DFA
Gallagher, Kathleen Marie - PhD (Director)
Kleber, Pia - BA, MA, PhD
Schotzko, T. Nikki Cesare - PhD
Switzky, Lawrence - BA, MA, PhD
Syme, Holger Schott - BA, AM, PhD
Trojanowska, Tamara - MA, PhD

Members Emeriti

Johnson, Stephen - BA, MA, PhD
Pietropaolo, Domenico - BSc, MA, PhD

Associate Members

Banerjee, Trina Nileena - MEd
Banning, Kass - MFA, MFA
Boye, Seika - PhD
Carter, Jill - DPhil
Diaz, Robert - PhD
Georgis, Dina - PhD
Gutsche-Miller, Sarah - PhD
John, Bina - BM, BE, MM, MusD
Keilty, Patrick - BA, MLIS, PhD
Leffler, Elliot - BS, MA, PhD
Midgelow, Vida - PhD
Most, Andrea - BA, MA, PhD
Mullin, Amy - BA, PhD
Rokeby, David - DipEd
Drama, Theatre and Performance Studies:
Drama, Theatre and Performance Studies
MA

Program Description

The graduate program of the Centre for Drama, Theatre and Performance Studies is an interdisciplinary program that intersects research in the fields of drama, theatre and performance studies including research in dramatic literature, cross-cultural theory and histories of theatre and performance, conceptual and applied models of dramaturgy and methodologies of practice-based research. Graduating students will be well equipped to pursue doctoral studies, serve as innovative leaders in cultural institutions and the performing arts, or become creative entrepreneurs.

Based on faculty research, we offer support for studies in Canadian theatre; Indigenous and East Asian theatre; dance and physical theatre; popular theatre; cross-cultural communication through performance and media; studies of experimental and avant-garde theatre in North America, Asia, and Europe; early modern theatre and archival studies; queer and feminist performance theory, ethics, and equity in theatre and performance; theatre and globalization; and digital humanities in performance. In addition to courses in the program, students are encouraged to take advantage of cross-listed courses and research opportunities across the humanities, sciences and social sciences. Bi-linguality or multi-linguality is an asset as well as creative artistic experience and a developed level of digital literacy.

Students entering the MA program can choose between the coursework-only option and thesis-based option. Applicants interested in the part-time MA option should contact the Associate Director (graduate) to obtain specific information prior to application.

Minimum Admission Requirements

- Applicants are considered under the General Regulations of the School of Graduate Studies. Admissions are selective; possession of minimum qualifications does not guarantee acceptance. Applicants must also satisfy the Centre for Drama, Theatre and Performance Studies' additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with standing equivalent to at least a University of Toronto B+ and with a significant concentration in theatre, drama, performance, and related disciplines.
- Applications are open through April 15 and admission decisions are made on an ongoing basis. Applicants, in particular international applicants, are encouraged to apply early. Contact the Associate Director for further information.

Program Requirements

Coursework-Only Option

- **Coursework.** Students must complete a minimum of 4.0 full-course equivalents (FCEs), as approved by the Centre, with no individual course grade below B–, as follows:
  - 1.5 FCEs in core courses, including:
    - DRA1001H History and Historiography in Drama, Theatre and Performance Studies (0.5 FCE)
    - DRA1002H Graduate Laboratory in Drama, Theatre and Performance Studies (0.5 FCE)
    - DRA1003H Introduction to Drama, Theatre and Performance Studies (0.5 FCE)
  - 2.5 FCEs in electives.
- The Centre may prescribe certain courses in the individual programs of MA students.

Thesis-Based Option

- Students must complete a minimum of 4.0 full-course equivalents (FCEs), as approved by the Centre, with no individual course grade below B–, as follows:
  - 1.5 FCEs in core courses, including:
    - DRA1001H History and Historiography in Drama, Theatre and Performance Studies (0.5 FCE)
    - DRA1002H Graduate Laboratory in Drama, Theatre and Performance Studies (0.5 FCE)
    - DRA1003H Introduction to Drama, Theatre and Performance Studies (0.5 FCE)
  - 1.0 FCE: DRA1004Y MA Thesis under the supervision of the course instructor.
- The Centre may prescribe certain courses in the individual programs of MA students.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Drama, Theatre and Performance Studies:
Drama, Theatre and Performance Studies
PhD

Doctor of Philosophy

Program Description

The graduate program of the Centre for Drama, Theatre and Performance Studies is an interdisciplinary program that intersects research in the fields of drama, theatre and performance studies including research in dramatic literature, cross-cultural theory and histories of theatre and performance, conceptual and applied models of dramaturgy and methodologies of practice-based research.
Graduating students will be well equipped to pursue academic careers, serve as innovative leaders in cultural institutions and the performing arts, or become creative entrepreneurs.

Based on faculty research, support is offered for studies in Canadian theatre; Indigenous and East Asian theatre; dance and physical theatre; popular theatre; cross-cultural communication through performance and media; studies of experimental and avant-garde theatre in North America, Asia, and Europe; early modern theatre and archival studies; queer and feminist performance theory, ethics, and equity in theatre and performance; theatre and globalization; and digital humanities in performance. In addition to courses in the program, students are encouraged to take advantage of cross-listed courses and research opportunities across the humanities, sciences, and social sciences. Bilinguality or multilingualism is an asset as well as creative artistic experience and a developed level of digital literacy.

Applicants may be accepted into the PhD program via one of two routes: 1) following completion of an MA degree or 2) direct entry with a BA degree. The doctoral program is not available as a part-time option. The direct-entry option is a rare exception to the rule; interested applicants interested should contact the Associate Director (graduate) to obtain specific information prior to application.

PhD Program

Minimum Admission Requirements

- Applicants for admission to the Centre for Drama, Theatre and Performance Studies are considered under the General Regulations of the School of Graduate Studies. Admissions are selective; possession of minimum qualifications does not guarantee acceptance. Applicants must also satisfy the Centre's additional admission requirements stated below.
- Applications are open through April 15 and admission decisions are made on an ongoing basis. Applicants, in particular international applicants, are encouraged to apply early. Contact the Associate Director for further information.
- Applicants with a master of arts degree: an MA in Drama, Theatre and Performance Studies or the equivalent from a recognized university, must have a standing equivalent to at least a University of Toronto A–. Applicants who have taken the MA through this Centre must be recommended for further study by the instructors whose courses they have taken. Applicants holding the MA of this University in another subject or its equivalent from another university will be considered for admission to the PhD program in light of their previous work and its relation to the Centre's requirements; additional coursework may be required.
- Applicants must arrange two reference letters that address specifically their academic skills and research potential. Admission will be conditional upon satisfactory recommendation.
- Applications must be accompanied by a statement of research intent (up to 5 pages plus bibliography), writing sample (15 pages plus bibliography), and curriculum vitae (CV).

Program Requirements

- Coursework. Students must complete a minimum of 4.0 approved full-course equivalents (FCEs), as approved by

the Centre, with no individual course grade below B–, including:
  - DRA1011H Sources and Concepts in Drama, Theatre, and Performance Studies I (0.5 FCE)
  - DRA1012H Sources and Concepts in Drama, Theatre, and Performance Studies II (0.5 FCE)
  - DRA1013H Modelling New Scholarship in Drama, Theatre, and Performance Studies (0.5 FCE)
  - DRA1014H Teaching and Learning in Drama, Theatre, and Performance Studies (0.5 FCE)
  - DRA5002H Research Development in Drama, Theatre, and Performance Studies (0.5 FCE).
- Demonstrate reading knowledge of a language other than English by passing an approved language examination no later than the end of Year 2. Students may also be asked to qualify in other program-related languages.
- Pass the field examination at the end of Year 2.
- Pass the prospectus defence at the beginning of Year 3.
- Present a thesis on an approved topic embodying the results of original investigation which shall be judged to constitute a significant contribution to the knowledge of the field.
- Pass an oral examination on the subject of the thesis.

Program Length

4 years (some students may take longer to complete the program)

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants for admission to the Centre for Drama, Theatre and Performance Studies are considered under the General Regulations of the School of Graduate Studies. Admissions are selective; possession of minimum qualifications does not guarantee acceptance. Applicants must also satisfy the Centre's additional admission requirements stated below.
- Applications are open through April 15 and admission decisions are made on an ongoing basis. Applicants, in particular international applicants, are encouraged to apply early. Contact the Associate Director for further information.
- Applicants with a bachelor of arts degree: exceptional students may be admitted to the PhD program (direct entry) from an appropriate BA from a recognized university with a minimum overall average equivalent to a University of Toronto A–. Applicants who do not qualify for direct entry into the PhD will be considered for the MA program.
- Applicants must arrange two reference letters, preferably from undergraduate instructors familiar with the applicant’s academic work, that address specifically their academic skills and research potential. Admission will be conditional upon satisfactory recommendation.
- Applications must be accompanied by a statement of research intent (up to 5 pages plus bibliography), writing sample (15 pages plus bibliography), and curriculum vitae (CV).
Program Requirements

- **Coursework.** Students must complete a minimum of 7.0 full-course equivalents (FCEs), as approved by the Centre, with no individual course grade below B–, including:
  - DRA1011H Sources and Concepts in Drama, Theatre, and Performance Studies I (0.5 FCE)
  - DRA1012H Sources and Concepts in Drama, Theatre, and Performance Studies II (0.5 FCE)
  - DRA1013H Modelling New Scholarship in Drama, Theatre, and Performance Studies (0.5 FCE)
  - DRA1014H Teaching and Learning in Drama, Theatre, and Performance Studies (0.5 FCE)
  - DRA5002H Research Development in Drama, Theatre, and Performance Studies (0.5 FCE).
- Must maintain an A– average in their first 3.0 FCEs in order to continue in the program.
- Direct-entry students must take MA-level required courses based on consultations with the Director and the Associate Director, Graduate.
- With approval, may elect to transfer to the MA after the first year of study. Work completed in the PhD program will be credited towards the MA.
- Demonstrate **reading knowledge of a language** other than English by passing an approved language examination no later than the end of Year 2. Students may also be asked to qualify in other program-related languages.
- Pass the **field examination** at the end of Year 3.
- Pass the **prospectus defence** at the beginning of Year 4.
- Present a **thesis** on an approved topic embodying the results of original investigation which shall be judged to constitute a significant contribution to the knowledge of the field.
- Pass an **oral examination** on the subject of the thesis.

Program Length

5 years

Time Limit

7 years

Drama, Theatre and Performance Studies: Drama, Theatre and Performance Studies MA, PhD Courses

Not all courses listed will be offered every year. Registrants are advised to confirm **course offerings** by consulting the Centre’s website, updated periodically through mid-summer, and by communicating with the Associate Director.

Cross-Listed Courses

The Centre for Drama, Theatre and Performance Studies also cross-lists courses offered by other graduate units of the University of Toronto. A listing of approved courses, available during the academic year, appears on the Centre’s website, which is updated in mid-summer. Students requesting courses from other units may be subjected to quotas and/or wait lists. Language and literature departments do not always provide courses in English translation. Confirm all course information — including date, time, location — with the appropriate unit as well as with the centre's Graduate Administrator.

Core Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>DRA1001H</td>
<td>History and Historiography in Drama, Theatre, and Performance Studies</td>
</tr>
<tr>
<td>DRA1002H</td>
<td>Graduate Laboratory in Drama, Theatre, and Performance Studies</td>
</tr>
</tbody>
</table>
Earth Sciences

Earth Sciences: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Earth Sciences

MASc, MSc, and PhD

Collaborative Specializations

The following collaborative specialization is available to students in participating degree programs as listed below:

- Environmental Studies
  - Earth Sciences, MASc, MSc, PhD

Overview

The Department of Earth Sciences at the University of Toronto has a venerable 165-year tradition of research and education in the geosciences. Rankings place U of T at the very top in the geosciences in Canada and among the very best institutions globally. The Department of Earth Sciences is internationally regarded for research in fundamental geoscience, having given rise to major advances in ore deposits geology, geophysics, Precambrian geology, marine geology, Quaternary geology, and sedimentary basin analysis.

Current education in Earth Sciences at the University of Toronto continues the tradition of excellence. Students have access to a wide range of state-of-the-art laboratories and expert knowledge fostering cutting-edge research in almost all areas of Earth Sciences.

Contact and Address

Web: www.es.utoronto.ca
Email: grad@es.utoronto.ca
Telephone: (416) 978-1240
Fax: (416) 978-3938

Department of Earth Sciences
University of Toronto
Earth Sciences Centre
Room 1066, 22 Ursula Franklin Street
Toronto, Ontario M5S 3B1
Canada

Earth Sciences: Graduate Faculty

Full Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson, Melissa</td>
<td>BSc, MSc, PhD</td>
</tr>
<tr>
<td>Bailey, Richard</td>
<td>BSc, PhD</td>
</tr>
<tr>
<td>Bergquist, Bridget</td>
<td>BS, PhD</td>
</tr>
<tr>
<td>Bollmann, Jorg</td>
<td>DrRerNat</td>
</tr>
<tr>
<td>Chu, Xu</td>
<td>BSc, MPH, PhD</td>
</tr>
<tr>
<td>Cowling, Sharon</td>
<td>BSc, MSc, PhD</td>
</tr>
<tr>
<td>Desloges, Joseph</td>
<td>BES, MSc, PhD</td>
</tr>
<tr>
<td>Diamond, Miriam</td>
<td>MSc, MSc, PhD</td>
</tr>
<tr>
<td>Dittrich, Maria</td>
<td>BES, MSc, PhD</td>
</tr>
<tr>
<td>Eyles, Nicholas</td>
<td>BSc, MSc, PhD, DSc</td>
</tr>
<tr>
<td>Ferris, Grant</td>
<td>BSc, PhD</td>
</tr>
<tr>
<td>Finkelstein, Sarah</td>
<td>AB, MPH, PhD</td>
</tr>
<tr>
<td>Gorton, Michael</td>
<td>BSc, BSc, PhD</td>
</tr>
<tr>
<td>Gregory, Daniel</td>
<td>BSc, PhD</td>
</tr>
<tr>
<td>Halfar, Jochen</td>
<td>- PhD</td>
</tr>
<tr>
<td>Head, Martin</td>
<td>- BSc</td>
</tr>
<tr>
<td>Henderson, Grant</td>
<td>- PhD</td>
</tr>
<tr>
<td>Heron, Philip</td>
<td>Joseph - BSc, MSc, PhD</td>
</tr>
<tr>
<td>Howard, Ken</td>
<td>- BSc, MSc, PhD</td>
</tr>
<tr>
<td>Laflamme, Marc</td>
<td>- BS, PhD</td>
</tr>
<tr>
<td>Liu, Qinya</td>
<td>- BSc, PhD</td>
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<tr>
<td>Miall, Andrew</td>
<td>- BSc, PhD</td>
</tr>
<tr>
<td>Pysklywec, Russell</td>
<td>- BSc, MSc, PhD</td>
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<tr>
<td>Schoenbohm, Lindsay</td>
<td>- PhD</td>
</tr>
<tr>
<td>Schulze, Daniel</td>
<td>- PhD</td>
</tr>
<tr>
<td>Sherwood Lollar, Barbara</td>
<td>- PhD</td>
</tr>
<tr>
<td>Simpson, Myrna</td>
<td>- BS, DPhil</td>
</tr>
<tr>
<td>Sio, Corliss Kin I.</td>
<td>- BS, PhD</td>
</tr>
<tr>
<td>Spooner, Edward</td>
<td>- BA, PhD</td>
</tr>
<tr>
<td>Swidinsky, Andrei</td>
<td>- BSc, MSc, PhD</td>
</tr>
<tr>
<td>Tait, Kimberly</td>
<td>- BSc, MSc, PhD</td>
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<tr>
<td>Wells, Mathew</td>
<td>- BS, DPhil</td>
</tr>
<tr>
<td>Wortmann, Ulrich</td>
<td>- BSc, MSc, PhD</td>
</tr>
<tr>
<td>Xu, Xiaoyong</td>
<td>- BSc, MSc, PhD</td>
</tr>
</tbody>
</table>

Members Emeriti

Milkereit, Bernd - DrRerNat
Robin, Pierre-Yves - MSc, PhD
Westgate, John - PhD

Associate Members

Bank, Carl-Georg - MSc, PhD
Bennett, Neil - MSc, PhD
Hirschorn, Sarah - BSc, PhD
Kamo, Sandra - BSc, PhD
Melymuk, Lisa - BSc, MSc, PhD

Earth Sciences: Earth Sciences MASc

Master of Applied Science

Program Description

Students perform a two-year, focused research project in a broad range of topics in the earth sciences. Students may also undertake studies in interdisciplinary areas by arrangement with other departments such as Chemistry, Civil Engineering, Ecology and Evolutionary Biology, Materials Science and Engineering, Physics, and the School of the Environment.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School Graduate Studies. Applicants must also satisfy the Department of Earth Sciences' additional admission requirements stated below.
- A four-year BSc or BASc degree, or its equivalent, from a recognized university.
- High academic standing, equivalent to a B or higher (equivalent to a 3.0 on a 4-point scale) at the University of Toronto, normally demonstrated by the average grade in the final two years.
- The department has no formal foreign language requirements. Students proceeding by thesis to any degree are expected to become familiar with the literature of their subjects, in whatever language it is written.

Program Requirements

- **Coursework.** Normally, complete 2.0 full-course equivalents (FCEs) as follows:
  - ESS1101H Seminars in Earth Sciences (0.5 FCE);
  - one of the six breadth courses (0.5 FCE): ESS1425H, ESS2222H, ESS2302H, ESS2303H, ESS2304H, or ESS2704H; and
  - 1.0 FCE of elective courses.
- A research thesis.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Earth Sciences: Earth Sciences MSc

Master of Science

Program Description

Students conduct research in a broad range of topics in the earth sciences. Students may also undertake studies in interdisciplinary areas by arrangement with other departments such as Chemistry, Civil Engineering, Ecology and Evolutionary Biology, Materials Science and Engineering, Physics, and the School of the Environment.

There are two streams: a) the Doctoral-Stream (also known as Research-Based) Master’s, which involves a one-year research project that culminates in a research report (shorter than a formal thesis) and a presentation; and b) the All-Course Master’s Program.

The program can be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Earth Sciences' additional admission requirements stated below.
- A four-year BSc or BASc degree, or its equivalent, from a recognized university.

Program Requirements

- **All-Course Option**

  - Students are normally required to complete 5.0 full-course equivalents (FCEs) as follows:
    - ESS1101H Seminars in Earth Sciences (0.5 FCE);
    - ESS3608H All-Course Research Project (0.5 FCE);
    - one of the six breadth courses (0.5 FCE): ESS1425H, ESS2222H, ESS2302H, ESS2303H, ESS2304H, or ESS2704H; and
    - 3.5 FCEs of elective courses.

  - To encourage breadth, the department will permit students to substitute electives with equivalent non-earth science courses.

- **Doctoral-Stream Option**

  - Students are normally required to complete 3.5 FCEs as follows:
    - ESS1101H Seminars in Earth Sciences (0.5 FCE);
    - ESS3603Y Research Project (1.0 FCE);
    - ESS3601Y Research Presentation (1.0 FCE);
    - one of the six breadth courses (0.5 FCE): ESS1425H, ESS2222H, ESS2302H, ESS2303H, ESS2304H, or ESS2704H; and
    - 0.5 FCE of elective courses.

  - To encourage breadth, the department will permit students to substitute electives with equivalent non-earth science courses.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

Time Limit

3 years full-time; 6 years part-time

\(^0\) Course that may continue over a program. The course is graded when completed.
Earth Sciences: Earth Sciences PhD

Doctor of Philosophy

Program Description

PhD students carry out a program of original research and perform a thesis defence. Students may also undertake studies in interdisciplinary areas by arrangement with other departments such as Chemistry, Civil Engineering, Ecology and Evolutionary Biology, Materials Science and Engineering, Physics, and the School of the Environment.

Applicants may enter the PhD program via one of three routes: 1) following completion of an MSc degree; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion of a bachelor’s degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Earth Sciences' additional admission requirements stated below.
- An appropriate, research-oriented MSc degree or its equivalent from a recognized university.
- High academic standing equivalent to a University of Toronto B+ or higher (equivalent to a 3.3 on a 4-point scale) in previous degrees.
- The department has no formal foreign language requirements. Students proceeding by thesis to any degree are expected to become familiar with the literature of their subjects, in whatever language it is written.

Program Requirements

- Preparation of a research thesis constituting a significant contribution to the research area.
- Coursework. Students are required to complete 1.0 full-course equivalent (FCE) as follows:
  - one of the six breadth courses (0.5 FCE): ESS1425H, ESS2222H, ESS2302H, ESS2303H, ESS2304H, or ESS2704H; and
  - an additional 0.5 elective FCE. The additional 0.5 FCE may be taken in departments other than Earth Sciences with the approval of the student's advisory committee.
- A reduction in the number of required courses may be granted for students who have previously undertaken graduate studies in the appropriate areas. Recommendations must be made by a student's advisory committee for consideration and approval by the department's Graduate Affairs Committee.
- In all cases, the student's supervisory committee reserves the right to assign additional courses if they feel that the student is deficient in a subject area essential to the research.
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Earth Sciences' additional admission requirements stated below.
- A four-year BSc or BASc degree, or its equivalent, from a recognized university.
- High academic standing equivalent to an A– or higher (equivalent to a 3.7 on a 4-point scale) at the University of Toronto, normally demonstrated by the average grade in the final two years.
- The department has no formal foreign language requirements. Students proceeding by thesis to any degree are expected to become familiar with the literature of their subjects, in whatever language it is written.

Program Requirements

- Preparation of a research thesis constituting a significant contribution to the research area.
- **Coursework.** Students are required to complete a total of 1.5 full-course equivalents (FCEs) as follows:
  - ESS1101H Graduate Seminars in Geology (0.5 FCE);
  - one of the six breadth courses (0.5 FCE): ESS1425H, ESS2222H, ESS2302H, ESS2303H, ESS2304H, or ESS2704H; and
  - an additional 0.5 elective FCE. The additional 0.5 FCE may be taken in departments other than Earth Sciences with the approval of the student's advisory committee.
- A reduction in the number of required courses may be granted for students who have previously undertaken graduate studies in the appropriate areas. Recommendations must be made by a student's advisory committee for consideration and approval by the department's Graduate Affairs Committee.
- In all cases, the student's supervisory committee reserves the right to assign additional courses if they feel that the student is deficient in a subject area essential to the research.

Program Length

5 years

Time Limit

7 years

Earth Sciences: Earth Sciences MASc, MSc, PhD Courses

Check with the department for the current year's offerings.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ESS1101H</td>
<td>Seminars in Earth Sciences</td>
</tr>
</tbody>
</table>

Additional courses related to geophysics can be found in the SGS Calendar entry for the Department of Physics.

\(^0\) Course that may continue over a program. The course is graded when completed.
East Asian Studies

East Asian Studies: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

East Asian Studies

MA and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Contemporary East and Southeast Asian Studies**
  - East Asian Studies, MA

- **Food Studies**
  - East Asian Studies, MA, PhD

- **Sexual Diversity Studies**
  - East Asian Studies, MA, PhD

- **South Asian Studies**
  - East Asian Studies, MA, PhD

- **Women and Gender Studies**
  - East Asian Studies, MA, PhD

Overview

The Department of East Asian Studies has a long, rich history at the University of Toronto as a centre for research and teaching on the humanities of East Asia, past and present. Faculty members specialize in social and cultural history, literature, philosophy, religion, language, art, film and visual culture. They are committed to the innovative pursuit of knowledge across regional, temporal and disciplinary divides. Many hold joint appointments with various departments, centres and collaborative specializations throughout the university.

Students and faculty in the department have access to a wide array of resources to support their research and learning. The Cheng Yu Tung East Asian Library holds more than 500,000 volumes in East Asian languages, making it a leading research collection in North America. The Royal Ontario Museum houses six separate galleries on the arts and artifacts of East Asia. The department and the Asian Institute host a variety of lecture series and workshops. The university campus is located in downtown Toronto, home to multiple thriving Asian communities.

Contact and Address

Web: [www.eas.utoronto.ca](http://www.eas.utoronto.ca)

Email: eas.grad@utoronto.ca

Telephone: (416) 946-3625

Fax: (416) 978-5711

Department of East Asian Studies

University of Toronto

Robarts Library 14-080, 130 St. George Street
East Asian Studies: East Asian Studies MA

Master of Arts

Program Description

East Asian Studies offers three tracks through its MA program: 1) MA through coursework, 2) MA with Major Research Paper (MRP), and 3) MA with thesis. It is possible to switch between the three tracks as long as all requirements are fulfilled.

Applicants should consult the department's website for details on the MA program, applications, course offerings, and profiles of the graduate faculty.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of East Asian Studies’ additional admission requirements stated below.
- Successful completion of an appropriate bachelor’s degree from a recognized university with a major in East Asian studies and at least a B+ standing in the final year.
- Applicants without a major in East Asian studies may also be considered, provided they demonstrate sufficient scholarly interest and academic preparation in East Asian studies.
- Statement of approximately 500 words (two pages) setting out the student's main fields of interest and proposed course of study.
- Two letters of recommendation from scholars who have knowledge of previous academic work.
- Programs are based on the study of original texts. This presupposes knowledge of the relevant languages.
- A 10- to 15-page sample of the applicant's academic writing in English.
- Applicants educated outside Canada whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must provide results of an English-language proficiency examination as part of their application. Tests must have been taken within the last 24 months at the time of submission of their application. Applicants taking the Internet-based Test of English as a Foreign Language (TOEFL) must achieve a minimum score of 100/120 and 22/30 on the writing and speaking sections. Comparable scores on similar tests are also acceptable.

Program Requirements

- The program may be completed through one of three routes:
  - Coursework: students normally complete 4.0 full-course equivalents (FCEs) with at least 2.0 FCEs in EAS courses, including the required course EAS2020H Critical Approaches to East Asia (0.5 FCE).
  - Coursework plus Major Research Paper (MRP): the MRP must be written with the guidance of a supervisor after the completion of coursework. Normally 4.0 FCEs as follows:
    - 3.0 FCEs of coursework including at least 1.5 FCEs in EAS courses, including the required course EAS2020H Critical Approaches to East Asia (0.5 FCE).
  - Coursework plus thesis: the thesis must be written with the guidance of a supervisor after the completion of coursework. Normally 4.0 FCEs as follows:
    - 3.0 FCEs of coursework including at least 1.5 FCEs in EAS courses, including the required course EAS2020H Critical Approaches to East Asia (0.5 FCE).

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

East Asian Studies: East Asian Studies PhD

Doctor of Philosophy

Program Description

The PhD program is a research degree that prepares students to teach and research in the area of East Asian Studies. The program consists of course work, language study, comprehensive exams, a dissertation prospectus, writing of a dissertation, and a final oral examination on the dissertation.

Applicants should consult the department's website for details on the PhD program, applications, course offerings, and profiles of the graduate faculty.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate MA degree or 2) direct entry after completing a BA degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of East Asian Studies' additional admission requirements stated below.
- Normally, completion of the MA program in the Department of East Asian Studies, or its equivalent from a recognized university, with an average grade of at least A–.
- Statement of approximately 500 words (two pages) setting out the student's main fields of interest and proposed course of study.
- Three letters of recommendation from scholars who have knowledge of previous academic work.
• Programs are based on the study of original texts. This presupposes knowledge of the relevant languages.

• A 10- to 15-page sample of the applicant's academic writing in English.

• Applicants educated outside Canada whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must provide results of an English-language proficiency examination as part of their application. Tests must have been taken within the last 24 months at the time of submission of their application. Applicants taking the Internet-based Test of English as a Foreign Language (TOEFL) must achieve a minimum score of 100/120 and 22/30 on the writing and speaking sections. Comparable scores on similar tests are also acceptable.

Program Requirements

• **Coursework.** Students must successfully complete a total of 4.0 non-language full-course equivalents (FCEs), including at least 2.0 FCEs in EAS courses, to be selected in consultation with the Graduate Associate Chair. 2.0 FCEs must be completed in Year 1, with an average grade of at least A–. The remaining courses are normally completed by the end of Year 2, maintaining an average of at least A–.
  
  o EAS2020H *Critical Approaches to East Asia* is a required course if not taken previously. If EAS2020H has previously been taken, students are required to take an additional 0.5 FCE.
  
  o Students are permitted to take some of their courses in other departments.

• A **comprehensive qualifying examination**, undertaken with the guidance of a supervisory committee, must be taken by November 30 of Year 3. The committee will provide the student with three questions (in a Major, Minor, and Adjacent field), for which the student must provide written answers within seven days. Within one week after submitting the answers, the student will meet with the committee to provide an oral defence of the answers. The committee will decide whether the student has passed or failed in each of the three fields on the basis of the written answers and oral defence taken together. If the student fails the Major field, he or she will be given one more chance to pass an entirely new examination, within three months of the first attempt. If the student passes the Major field but fails either one or both of the Minor and Adjacent fields, then he or she will be given one more chance to take an examination consisting of new questions in the fields failed, within six weeks of the first attempt. Third attempts are not permitted.

• An appropriate level of proficiency in at least one **language** (other than English) relevant to the student's areas of study must be demonstrated by November 30 of Year 3; the language(s), level of proficiency, and method of evaluation are to be determined by the Graduate Associate Chair, in consultation with the student's supervisor. Students will take a language placement test (or multiple tests, depending on the area of study) at the beginning of their program. Upon receiving the placement result, students must meet with their supervisor. If the appropriate level of proficiency has not been demonstrated, the student and their supervisor will devise a plan for achieving proficiency by November 30 of Year 3. The plan will be approved by the Graduate Associate Chair.

• Within one to three months after completing the comprehensive examination, students are required to produce a **dissertation prospectus** to be approved by their supervisory committee.

The committee will meet to consider the dissertation prospectus and provide the student with feedback. The student will make the revisions and submit the prospectus to his/her supervisor for final approval, which must be given by the end of the student's third year. After the dissertation prospectus is approved, the student advances to candidacy.

• After completing all of the above requirements, students are required to produce a **doctoral dissertation** with the guidance of their supervisory committee. The completed dissertation must be defended at a Doctoral Final Oral Examination.

PhD Program (Direct-Entry)

**Minimum Admission Requirements**

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of East Asian Studies' additional admission requirements stated below.

• Admission to the PhD program normally requires completion of the MA program in the Department of East Asian Studies, or its equivalent from a recognized university, with an average grade of at least A–. However, departmental assessment may also permit registration directly from a BA degree in the most exceptional cases where, for instance, there is a very high grade point average or a well-documented demonstration of capacity for original research.

• Statement of approximately 500 words (two pages) setting out the student's main fields of interest and proposed course of study.

• Three letters of recommendation from scholars who have knowledge of previous academic work.

• Programs are based on the study of original texts. This presupposes knowledge of the relevant languages.

• A 10- to 15-page sample of the applicant's academic writing in English.

• Applicants educated outside Canada whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must provide results of an English-language proficiency examination as part of their application. Tests must have been taken within the last 24 months at the time of submission of their application. Applicants taking the Internet-based Test of English as a Foreign Language (TOEFL) must achieve a minimum score of 100/120 and 22/30 on the writing and speaking sections. Comparable scores on similar tests are also acceptable.
Program Requirements

- **Coursework.** Students must successfully complete a total of 4.0 non-language full-course equivalents (FCEs), including at least 2.0 FCEs in EAS courses, to be selected in consultation with the Graduate Associate Chair. 2.0 FCEs must be completed in Year 1, with an average grade of at least A–. The remaining courses are normally completed by the end of Year 2, maintaining an average of at least A–.
  - EAS2020H **Critical Approaches to East Asia** (0.5 FCE) is a required course if not taken previously. If EAS2020H has previously been taken, students are required to take an additional 0.5 FCE.
  - Students are permitted to take some of their courses in other departments.

- **EAS1150Y Reading and Major Research Paper** (1.0 FCE), to be written with the guidance of and assessed by the student's academic supervisor, must be completed by August 31 of Year 2.

- A **comprehensive qualifying examination**, undertaken with the guidance of a supervisory committee, must be taken by February 28 of Year 3. The committee will provide the student with three questions (in a Major, Minor, and Adjacent field), for which the student must provide written answers within seven days. Within one week after submitting the answers, the student will meet with the committee to provide an oral defence of the answers. The committee will decide whether the student has passed or failed in each of the three fields on the basis of the written answers and oral defence taken together. If the student fails the Major field, he or she will be given one more chance to pass an entirely new examination, within three months of the first attempt. If the student passes the Major field but fails either one or both of the Minor and Adjacent fields, then he or she will be given one more chance to take an examination consisting of new questions in the fields failed, within six weeks of the first attempt. Third attempts are not permitted.

- An appropriate level of proficiency in at least one **language** (other than English) relevant to the student's areas of study must be demonstrated by November 30 of Year 3; the language(s), level of proficiency, and method of evaluation are to be determined by the Graduate Associate Chair, in consultation with the student's supervisor. Students will take a language placement test (or multiple tests, depending on the area of study) at the beginning of their program. Upon receiving the placement result, students must meet with their supervisor. If the appropriate level of proficiency has not been demonstrated, the student and their supervisor will devise a plan for achieving proficiency by November 30 of Year 3. The plan will be approved by the Graduate Associate Chair.

- Within one to three months after completing the comprehensive examination, students are required to produce a **dissertation prospectus** to be approved by their supervisory committee. The committee will meet to consider the dissertation prospectus and provide the student with feedback. The student will make the revisions and submit the prospectus to his/her supervisor for final approval, which must be given by the end of the student’s third year. After the dissertation prospectus is approved, the student advances to candidacy.

- After completing all of the above requirements, students are required to produce a **doctoral dissertation** with the guidance of their supervisory committee. The completed dissertation must be defended at a Doctoral Final Oral Examination.

Program Length

- **5 years**

Time Limit

- **7 years**

East Asian Studies: East Asian Studies MA, PhD Courses

The following courses may be offered by the department. Not all courses are offered every year. Please consult the department's website for a current course listing.

### Cultural Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAS1101Y</td>
<td>Classical Chinese I</td>
</tr>
<tr>
<td>EAS1102H</td>
<td>Classical Chinese II (prerequisite: EAS110Y1; exclusion: EAS458H1)</td>
</tr>
<tr>
<td>EAS1103Y</td>
<td>Introduction to Classical Japanese</td>
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<tr>
<td>EAS1177H</td>
<td>Chinese Cultural and Historical Studies</td>
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<tr>
<td>EAS1180H</td>
<td>Environmental Criticism</td>
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<tr>
<td>EAS1335H</td>
<td>Violence, Justice, the Human</td>
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<tr>
<td>EAS1336H</td>
<td>Memory and Trauma in Critical East Asian Historical Perspective</td>
</tr>
<tr>
<td>EAS1337H</td>
<td>Diaspora and Transpacific Studies</td>
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<tr>
<td>EAS1339H</td>
<td>Topics in Chinese Art Theories</td>
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<tr>
<td>EAS1419H</td>
<td>Chinese Cultural Studies Seminar: May Fourth</td>
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<tr>
<td>EAS1432H</td>
<td>Korean Cultural Studies Seminar</td>
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<tr>
<td>EAS1436H</td>
<td>Rethinking Realism in 20th Century Korea</td>
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<tr>
<td>EAS1439H</td>
<td>Crisis, Population, Archive</td>
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<tr>
<td>EAS1445H</td>
<td>On the Organic: Land and Labour Power</td>
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<td>EAS1447H</td>
<td>Sound Studies and Modern Japan</td>
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<tr>
<td>EAS1449H</td>
<td>Future, Architecture, Japan</td>
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<tr>
<td>EAS1475H</td>
<td>Contemporary Cultural Theories</td>
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<td>EAS1477H</td>
<td>Samurai Culture (exclusion: EAS477H1)</td>
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<td>EAS1530H</td>
<td>Sound Matters</td>
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<tr>
<td>EAS2020H</td>
<td>Critical Approaches to East Asia</td>
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<td>EAS2323H</td>
<td>Rethinking Chinese Cultural History</td>
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## History

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<tr>
<td>EAS1130H</td>
<td>Rethinking China's Cultural Revolution: History, Politics, and Theory</td>
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<tr>
<td>EAS1140Y</td>
<td>From Republic to People's Republic: The Chinese Revolution from 1895 to the Present</td>
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<td>EAS1173H</td>
<td>Modern Korean History Seminar</td>
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<tr>
<td>EAS1174Y</td>
<td>Rethinking Empire in East Asia</td>
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<tr>
<td>EAS1176H</td>
<td>Comparative Historical Socialisms in East Asia and Beyond</td>
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<tr>
<td>EAS1411H</td>
<td>Art and Archaeology of Early China</td>
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<tr>
<td>EAS1412H</td>
<td>Special Topics in Archaeology of Ancient China</td>
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<tr>
<td>EAS1425H</td>
<td>Critique of Everyday Life and Capitalism</td>
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<tr>
<td>EAS1426H</td>
<td>Transition, Subjectivity, Revolution</td>
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<td>EAS1427H</td>
<td>The Production of Difference and the Logic of Capital</td>
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<td>EAS1446H</td>
<td>The Communist Hypothesis and Asia (exclusion: EAS446H1)</td>
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<tr>
<td>EAS1466H</td>
<td>History, Everyday Life, and North Korea</td>
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<tr>
<td>EAS1471H</td>
<td>Issues in Political Economy of South Korea</td>
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<tr>
<td>EAS1472H</td>
<td>Cold War in the Pacific</td>
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<tr>
<td>EAS1496H</td>
<td>History of the Chinese Book</td>
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<tr>
<td>EAS1543H</td>
<td>Empire, Ethnicity, and Translation in Inner Asian and Chinese History</td>
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## Literature

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<td>EAS1137H</td>
<td>Chinese Poetics</td>
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<td>Chinese Poetics</td>
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<tr>
<td>EAS1151H</td>
<td>Chinese Poetry I</td>
</tr>
<tr>
<td>EAS1152H</td>
<td>Chinese Poetry II</td>
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<tr>
<td>EAS1182H</td>
<td>Writing as Technology in Modern China</td>
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<tr>
<td>EAS1408H</td>
<td>Identity and Diaspora in Modern Taiwanese Literature</td>
</tr>
<tr>
<td>EAS1417H</td>
<td>Korean Literary Translation</td>
</tr>
<tr>
<td>EAS1437H</td>
<td>Mid-century Modernism in the Koreas: Literature, War, and Decolonization</td>
</tr>
<tr>
<td>EAS1444H</td>
<td>The City, Body, and Text in Modern Japanese Literature</td>
</tr>
<tr>
<td>EAS1468H</td>
<td>Mahayana Sutra Literature</td>
</tr>
<tr>
<td>EAS1538H</td>
<td>Writing Women in Premodern China</td>
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<tr>
<td>EAS1541H</td>
<td>A Comparative History of Reading in East Asia and Beyond</td>
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<tr>
<td>EAS1542H</td>
<td>Manchu Language and History</td>
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<tr>
<td>EAS1550H</td>
<td>Hong Kong Literature</td>
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<tr>
<td>COL5101H</td>
<td>Diasporic Cities: Itinerant Narratives of Metropoles by Travellers and Expatriates</td>
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<td>JLA5082H</td>
<td>The Rhetoric of Photography</td>
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## Language

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<td>EAS1301Y</td>
<td>Modern Standard Japanese I (Credit/No Credit)</td>
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<tr>
<td>EAS1302Y</td>
<td>Modern Standard Japanese II (Credit/No Credit)</td>
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<tr>
<td>EAS1303Y</td>
<td>Modern Standard Japanese III (Credit/No Credit)</td>
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<tr>
<td>EAS1304H</td>
<td>Modern Standard Japanese IVa (Credit/No Credit)</td>
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<td>EAS1305H</td>
<td>Modern Standard Japanese IVb (Credit/No Credit)</td>
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<td>EAS1321H</td>
<td>Japanese I for Students with Prior Background (Credit/No Credit)</td>
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<tr>
<td>EAS1322H</td>
<td>Modern Standard Japanese II Prior Background (Credit/No Credit)</td>
</tr>
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<td>EAS1621Y</td>
<td>Modern Standard Korean I (Credit/No Credit)</td>
</tr>
<tr>
<td>EAS1622Y</td>
<td>Modern Standard Korean II (Credit/No Credit)</td>
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<td>EAS1623Y</td>
<td>Modern Standard Korean III (Credit/No Credit)</td>
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<tr>
<td>EAS1631Y</td>
<td>Accelerated Modern Standard Korean 1 and 2 (Credit/No Credit)</td>
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<tr>
<td>EAS1632H</td>
<td>Accelerated Modern Standard Korean 2 (Credit/No Credit)</td>
</tr>
<tr>
<td>EAS1801Y</td>
<td>Modern Standard Chinese I (Credit/No Credit)</td>
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<td>Modern Standard Chinese II (Credit/No Credit)</td>
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<td>EAS1803Y</td>
<td>Modern Standard Chinese III (Credit/No Credit)</td>
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<td>EAS1811Y</td>
<td>Modern Standard Chinese I for Students With Background in Chinese (Credit/No Credit)</td>
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<tr>
<td>EAS1814H</td>
<td>Modern Standard Chinese IVa (Credit/No Credit)</td>
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<tr>
<td>EAS1815H</td>
<td>Modern Standard Chinese IVb (Credit/No Credit)</td>
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### Philosophy and Religion

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<th>Course Title</th>
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<td>EAS1407H</td>
<td>Textual Analysis of Classical Chinese Philosophy</td>
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<tr>
<td>POL2416Y</td>
<td>Politics and Society in Contemporary China</td>
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### Research Seminars

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<tr>
<td>EAS1100H</td>
<td>Special Topics in Chinese Studies</td>
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<td>EAS1100Y</td>
<td>Special Topics in Chinese Studies</td>
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<tr>
<td>EAS1116H</td>
<td>Special Topics in Chinese Culture</td>
</tr>
<tr>
<td>EAS1116Y</td>
<td>Special Topics in Chinese Culture</td>
</tr>
<tr>
<td>EAS1143H</td>
<td>Topics in Medieval China</td>
</tr>
<tr>
<td>EAS1150H</td>
<td>Reading and Major Research Paper</td>
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<tr>
<td>EAS1150Y</td>
<td>Reading and Major Research Paper</td>
</tr>
<tr>
<td>EAS1163H</td>
<td>Special Topics in Korean Studies</td>
</tr>
<tr>
<td>EAS1250Y</td>
<td>MA Thesis (Credit/No Credit)</td>
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<tr>
<td>EAS1300H</td>
<td>Special Topics in Japanese Studies</td>
</tr>
<tr>
<td>EAS1313Y</td>
<td>Japanese Source Materials and Reference Works</td>
</tr>
<tr>
<td>EAS1323Y</td>
<td>Readings in Japanese Documentary Source Materials</td>
</tr>
<tr>
<td>EAS1497H</td>
<td>Special Topics in East Asian Studies</td>
</tr>
<tr>
<td>EAS1999Y</td>
<td>East Asian Studies Bibliography, Reference, and Research Methodology</td>
</tr>
</tbody>
</table>
Ecology and Evolutionary Biology

Ecology and Evolutionary Biology: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Ecology and Evolutionary Biology

MSc and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Environmental Studies**
  - Ecology and Evolutionary Biology, PhD
- **Genome Biology and Bioinformatics**
  - Ecology and Evolutionary Biology, PhD

Overview

The disciplines of ecology and evolutionary biology involve complementary perspectives on biological systems. Individual and collaborative research within the department covers the range of both disciplines and often involves study and synthesis across multiple levels of organization. Professors’ research interests include population/community ecology, ecosystem/landscape ecology, evolutionary ecology, conservation biology, genetics, evolutionary genetics, genomics, molecular evolution, bioinformatics, behaviour, behaviour genetics, theoretical biology, plant biology, animal biology, taxonomy/systematics, developmental biology, anatomy, and physiology.

Strong links exist between the Department of Ecology and Evolutionary Biology (EEB) and the Royal Ontario Museum, the Centre for Global Change, and the School of the Environment. The University owns a nearby field station dedicated to ecological and evolutionary research (the Koffler Scientific Reserve). The department also has partnerships with government agencies including the Ontario Ministry of Natural Resources and Forestry that helps provide access to infrastructure, including field and lab facilities in Algonquin Provincial Park, funding, and long-term data sets.

Graduate students are engaged in all aspects of the departmental community including reading and discussion groups, seminars, and social events. Other activities include workshops on writing papers, giving presentations, R and Python, and finding positions — both academic and those outside of universities.

The EEB department has 60 faculty members specializing in ecology and evolution. Professors supervising graduate students are located on all three campuses of the University (St. George, Mississauga, Scarborough) as well as at the Royal Ontario Museum.

Contact and Address

Web: [www.eeb.utoronto.ca](http://www.eeb.utoronto.ca)
Email: gradadmin.eeb@utoronto.ca
Telephone: (416) 978-7172
Fax: (416) 978-5878

Department of Ecology and Evolutionary Biology
University of Toronto
Earth Sciences Centre
Room 3046, 25 Willcocks Street
Toronto, Ontario M5S 3B2
Canada

Ecology and Evolutionary Biology: Graduate Faculty

Full Members

Agrawal, Anil - BSc, PhD, CRC
Andrade, Maydianne - BSc, MS, PhD
Anreiter, Ina - BSc, MSc, PhD
Baines, Celina - BSc, MSc, PhD
Bell, Terrence - BSc, MSc, PhD
Bontrager, Megan - BSc, BSc, PhD, PhD
Cadotte, Marc - BS, MS, PhD
Caron, Jean-Bernard - MSc, PhD
Chang, Belinda - AB, PhD, CRC
Claramunt Tammaro, Santiago - BSc, PhD
Currie, Douglas - BSc, PhD
Cutter, Asher - PhD, CRC
Cyr, Helene - BSc, MSc, PhD
D'Aloia, Cassidy Constance - BA, PhD
Darling, D. Christopher - MSc, PhD
Dillon, Marcus - BA, PhD
Evans, David - BSc, PhD
Fitzpatrick, Mark - BS, MS, PhD
Fortin, Marie-Josée - MSc, PhD, CRC
Frederickson, Megan - AB, PhD
Gilbert, Benjamin - BSc, MSc, PhD
Guttman, David - BS, PhD
Holmes, Melissa - BA, MA, PhD
Jackson, Donald - BSc, MSc, PhD
Johnson, Marc - BSc, PhD
Kotanen, Peter - BSc, MSc, PhD
Krkosek, Marty - BSc, PhD, CRC
Levine, Joel - BA, PhD
Lovejoy, Nathan Richard - BSc, MS, PhD
Lujan, Nathan Keller - BSc, PhD
Mandrek, Nicholas - BSc, MSc, PhD
Mason, Andrew - MS, PhD
McCausley, Shannon - PhD
Mideo, Nicole - BSc, PhD
Moncalvo, Jean-Marc - PhD
Murphy, Robert - BSc, MA, PhD
Murray, Rosalind - BSc, MSc, PhD
Osmond, Matthew - BSc, MSc, PhD
Parins-Fukuchi, Tomomi - AB, PhD
Rajavasireddy, Satyaki - BCh, BCh, MC, MC, PhD
Ratcliffe, John - BSc, MSc, PhD
Reisz, Robert - BSc, MSc, PhD, FRSC
Rodd, Helen - MSc, PhD
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Ecology and Evolutionary Biology's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university, with an average grade equivalent to a University of Toronto B+ or better in the last year of the bachelor's degree and a minimum B average in the previous year.
- Applicants will not be admitted until they have secured an agreement with a graduate faculty member to sponsor and supervise the student’s research.

Program Requirements

- **Coursework.** Students must successfully complete 0.5 graduate full-course equivalent (FCE) chosen from courses offered by the EEB department or, with the permission of the supervisor(s) and supervisory committee, offered by other U of T departments. Students should consult supervisory faculty about the most appropriate courses.
- Students must complete a **thesis** under the direction of the student's supervisor, assisted by an advisory committee, and defended at an oral examination.

Program Length

- 4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

- 3 years full-time

Ecology and Evolutionary Biology: Ecology and Evolutionary Biology PhD

Doctor of Philosophy

Program Description

The main goal of the PhD program is to provide students with the opportunity to design, conduct, and write about a series of substantial, inter-related, independent research projects. Students’ projects cover the full range of topics listed in the Overview (above) and may include field work, lab work, bioinformatics, theory, computer simulations, or some combination of these approaches.

- PhD students are expected to complete an original independent research program that makes substantial and innovative contributions to their field of research. It is expected that PhD candidates will publish a number of primary scientific papers based on their research.
- A thesis is completed under the direction of the student's supervisor(s), assisted by a supervisory (advisory) committee, and defended at an oral examination.
- The average time to completion is 5.5 years.
Applicants may enter the PhD program via one of three routes: 1) following completion of an MSc degree; 2) transfer from EEB’s University of Toronto MSc program; or 3) direct entry following completion of a BSc degree.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Ecology and Evolutionary Biology's additional admission requirements stated below.
- Applicants will not be admitted until they have secured an agreement with a graduate faculty member to sponsor and supervise the student's research and the applicant has been offered a graduate position by EEB.
- Applicants may be accepted who already hold an MSc degree from a recognized university with a grade average equivalent to at least a University of Toronto A– during the MSc and an average of at least B+ in the last year of the bachelor's program.

**Program Requirements**

- **Coursework.** Students must successfully complete a total of 1.5 graduate full-course equivalents (FCEs) (three half courses). These courses are chosen from those offered by the EEB department, or with the permission of the supervisor(s) and supervisory committee, offered by other U of T departments.
- During an appraisal exam, students are examined on both their mastery of concepts in ecology and evolutionary biology and a submitted research proposal. Students are examined 14 to 20 months into the program.
- Students must deliver two public seminars in the department based on their thesis research.
- Students must submit a thesis and defend it at a Doctoral Final Oral Examination conducted by the School of Graduate Studies.

**Program Length**

5 years

**Time Limit**

7 years

**PhD Program (Direct-Entry)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Ecology and Evolutionary Biology's additional admission requirements stated below.
- Applicants will not be admitted until they have secured an agreement with a graduate faculty member to sponsor and supervise the student's research and the applicant has been offered a graduate position by EEB.
- Exceptional applicants may be accepted for direct entry into the PhD with a BSc degree with an average grade equivalent to a University of Toronto A– or better in courses in ecology and evolutionary biology, and evidence of research potential.

**Program Requirements**

- **Coursework.** Exceptional students admitted to the PhD program without an MSc degree must successfully complete a total of 2.0 graduate full-course equivalents (FCEs) (four half courses). These courses are chosen from those offered by the EEB department, or with the permission of the supervisor(s) and supervisory committee, offered by other U of T departments.
During an appraisal exam, students are examined on both their mastery of concepts in ecology and evolutionary biology and a submitted research proposal. Students are examined 14 to 26 months into the program.

- Students must deliver two public seminars in the department based on their thesis research.
- Students must submit a thesis and defend it at a Doctoral Final Oral Examination conducted by the School of Graduate Studies.

Program Length

5 years

Time Limit

7 years

Ecology and Evolutionary Biology: Ecology and Evolutionary Biology MSc, PhD Courses

Not all courses are offered every year. Please visit the Ecology and Evolutionary Biology website for a current list of course offerings including special topics courses.

Courses Offered at the Graduate Level Only

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<td>EEB1230H</td>
<td>Multivariate Statistics</td>
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<td>EEB1250H</td>
<td>Spatial Statistics</td>
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<tr>
<td>EEB1310H</td>
<td>Philosophy and Methods</td>
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<tr>
<td>EEB1315H</td>
<td>Professional Skills Development in EEB</td>
</tr>
<tr>
<td>EEB1320H</td>
<td>Ecology</td>
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<td>EEB1350H</td>
<td>Evolution</td>
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<tr>
<td>EEB1420H</td>
<td>Special Topics in Ecology</td>
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<tr>
<td>EEB1423H</td>
<td>Special Topics: Ecology I</td>
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<td>EEB1430H</td>
<td>Modelling in Ecology and Evolutionary Biology</td>
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<td>Special Topics: Evolution/Ecology Module III</td>
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<tr>
<td>EEB1455H</td>
<td>Special Topics: Evolution/Ecology Module IV</td>
</tr>
<tr>
<td>EEB1456H</td>
<td>Special Topics: Evolution/Ecology Module V</td>
</tr>
</tbody>
</table>

Graduate Courses With Significant Undergraduate Content

These courses will normally constitute only a minor component of the required credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEB1443H</td>
<td>Phylogenetic Principles</td>
</tr>
<tr>
<td>EEB1459H</td>
<td>Theoretical Population Genetics</td>
</tr>
<tr>
<td>EEB1460H</td>
<td>Molecular Evolution</td>
</tr>
<tr>
<td>EEB1462H</td>
<td>Phylogenetic Systematics</td>
</tr>
</tbody>
</table>
Economics

Economics: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Economics

MA and PhD

Combined Degree Programs

• STG, Law, Juris Doctor / Economics, MA
• STG, Law, Juris Doctor / Economics, PhD

Overview

The Department of Economics at the University of Toronto is large and highly ranked. The teaching and research interests of its graduate faculty members span a wide range of subjects and cover theory, applied data analysis and econometric methodology.

The department offers both MA and PhD programs in economics. The goal of the graduate programs is to further the student's capacity for economic analysis through rigorous instruction in theory, econometrics and a wide variety of fields. The MA and PhD course and research offerings provide great diversity, breadth and scope; students can readily specialize in almost any area of interest. Additionally, students may take suitable elective courses in statistics, mathematics, computer science and other allied fields. Students benefit from Economics' close association with faculty members from related programs, such as those at the Rotman School of Management. They also benefit from the University of Toronto's excellent facilities, including the best university library in Canada.

The department's programs attract students from across Canada and all parts of the globe. Approximately 65 new MA students and 15 to 20 new PhD students are enrolled each year with total combined enrolment of approximately 150.

MA graduates find employment in their area of interest in the public, private and not-for-profit sectors. They also successfully pursue PhD programs in economics. PhD graduates obtain academic placement and employment in the public and private sectors.

The Department of Economics and the Rotman School of Management also offer a professional Master of Financial Economics (MFE) program.

Contact and Address

MA and PhD:
Web: www.economics.utoronto.ca
Email: www.economics.utoronto.ca/index.php/index/index/contact
Telephone: (416) 978-4544

Economics: Graduate Faculty

Full Members

Aguirregabiria, Victor - BA, MSc, PhD
Aivazian, Varouj - BS, MA, PhD
Alexopoulos, Michelle - BSc, MA, PhD
Baker, Michael - BComm, MA, PhD
Bar-Isaac, Heski - BA, MSc, PhD
Baum-Snow, Nathaniel - AB, PhD
Benjamin, Dwayne - BSc, MA, PhD
Bobonis, Gustavo - BA, PhD
Brandt, Loren - BS, MS, PhD
Burda, Martin - BSc, MA, PhD
Carroll, Gabriel - BA, PhD
Celik, Murat - PhD
Damiano, Ettore Vincenzo - AB, MA, MPH, PhD (Chair and Graduate Chair)
Deb, Rahul - MA, MPH, PhD
Duarte, Margarida - MSc, PhD
Dynda, Sebastian - MA, MA, PhD
Eli, Shari - BA, PhD
Gourieroux, Christian - PhD
Haley, Yoram - BA, MA, PhD
Hall, Jonathan - BA, PhD
Hamilton, Gillian - MSc, PhD
Heblich, Stephan - PhD
Kambourov, Gueorgui - BA, MA, DPhil
Kroft, Kory - BA, MA, PhD
Kuruscu, Burhan - BSc, MA, PhD
Lacetera, Nicola - PhD
Li, Nicholas - BA, MSc, PhD
Lim, Kevin Shun Wei - MA, MA, PhD
Luo, Yao - BS, MA, PhD
McMillan, Robert - AB, DPhil (Associate Chair, Graduate Studies)
Melin, Angelo - BA, PhD
Mitchell, Matthew - BS, MA, PhD
Mondria, Jordi - BA, MA, PhD
Moorthy, Sridhar - BSc, MBA, MS, PhD
Morrow, Peter - BA, MA, PhD
Mourifie, Ismael - BMath, MSc, PhD
Oreopoulos, Philip - BA, MA, PhD
Ozkan, Serdar - MSc, PhD
Peski, Marcin - BA, MA, MA, PhD
Pichik, Carolyn - BA, MSc, PhD
Restuccia, Diego - BA, MA, PhD
Roesler, Anne-Katrin - PhD
Shi, Xianwen - PhD
Siow, Aloysius - BA, PhD
Smart, Michael - BA, BA, PhD
Souza Rodrigues, Eduardo Augusto - PhD
Steinberg, Joseph - BA, PhD
Stewart, Colin - BSc, MA, MPH, MSc, PhD
Strange, William - BA, MA, PhD
Treffler, Daniel - BA, MPH, PhD
Tsou, Anton - PhD
Van Effenterre, Clementine - PhD
Wan, Yuanyuan - BA, MA, PhD
Webb, Ryan - BA, MA, PhD
Wolthoff, Ronald - PhD
Yatchew, Adonis - BA, MA, PhD

Members Emeriti

Dewees, Donald - LLB, BScEE, PhD
Faig, Miquel - MEc, PhD
Gunderson, Morley - BA, MA, PhD

Associate Members

Arteaga Cabrales, Carolina - PhD, PhD
Chen, Yanyou - MA
Hussain, Ajaz - BA, PhD
Koffi, Marlene - MSc
Price, David - BA, MA, PhD
Rempel, Mark - BA, MA, MA, PhD
Stepner, Michael - BA, PhD
Vivalt, Eva - MA, MPH, PhD
Wang, Tianyi - MA, PhD
Zarate Vasquez, Roman Andres - BA, MA, PhD

Economics: Economics MA

Master of Arts

Program Description

The MA is a coursework-only program (i.e., has no thesis requirement) that may be taken on a full-time or part-time basis. It is designed for individuals who wish to work in the public, private, and not-for-profit sectors, and also for students intending to pursue a PhD in economics.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Economics’ additional admission requirements stated below.
• An appropriate bachelor's degree with at least a mid-B (75%) standing in the final year of the program.
• Successful completion of full-year courses in calculus, intermediate microeconomics, intermediate macroeconomics, and statistics.
• Admission is competitive, so accepted applicants will normally have achieved a standing considerably higher than the minimum of at least a mid-B (75%) in the final year.
• All applicants who do not hold a degree from a Canadian university must submit an official Graduate Record Examination (GRE) General Test score. Applicants who hold a degree from a Canadian university are encouraged to submit an official GRE General Test score. See the departmental website for details.

Program Requirements

• Successful completion of 4.5 full-course equivalents (FCEs) as follows:
  ○ 0.5 FCE mathematics and statistics course (ECO1010H);
  ○ 4.0 FCEs including the core courses in micro (ECO1200H), macro (ECO1100H), and econometrics (ECO1400H). Five 0.5 FCE elective courses are selected from current courses or may be graduate courses offered by another unit, provided they make a strong contribution to the student's economic training. At most two (1.0 FCE) of the five courses may be offered by another unit, and these courses must be approved by the Associate Chair, Graduate Studies. Units that offer courses that we may approve include Mathematics, Statistical Sciences, and the Rotman School of Management.
  ○ An MA student may be permitted to fulfill core course requirements by taking the corresponding PhD-level core courses (ECO2200H and ECO2201H for microeconomics, ECO2100H and ECO2101H for macroeconomics, or ECO2400H and ECO2401H for econometrics). To make this substitution, the student will be required to take the PhD-level ECO2010H (mathematics and statistics course), and must obtain written permission from the Associate Chair, Graduate Studies prior to starting the mathematics and statistics course in August.

Program Length

2 sessions full-time (typical registration sequence: F/W);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Economics: Economics PhD

Doctor of Philosophy

Program Description

The Department of Economics offers two PhD programs: a regular-entry program for students who have completed a master's degree in economics or a closely related field, and a direct-entry program for students with only an undergraduate degree. Both are full-time programs.

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Economics' additional admission requirements stated below.
• Minimum B+ standing in an MA program in economics. Admission is competitive, so accepted applicants will normally have achieved a standing considerably higher than the minimum B+.
• A strong preparation in advanced mathematics, statistics, and economics, including successful completion of MA-level microeconomic theory, macroeconomic theory, and econometrics.
• All applicants who do not hold a degree from a Canadian university must submit an official Graduate Record...
Program Requirements

- Students must maintain a minimum average of B+ throughout their coursework and successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  - **Year 1**: 3.0 FCEs, normally consisting of two half courses in each area:
    - Microeconomics (ECO2200H and ECO2201H)
    - Macroeconomics (ECO2100H and ECO2101H)
    - Econometrics (ECO2400H and ECO2401H)
  - **Year 2**: at least two half courses (1.0 FCE), including the required courses for a major field of specialization and a minor field of specialization.
    - Students must write an original paper in Year 2 and present it in the relevant workshop in the Fall session of Year 3.
    - Students must also take ECO4060Y0 Graduate Research Seminar (1.0 FCE) in Year 2 and complete it by the end of Year 3.
    - Suitable PhD-level courses taken by a student in the MA program in the Department of Economics may, with the permission of the Associate Chair, Graduate Studies, fulfill a portion of the major and minor field requirements of the PhD program.
- A thesis based on original research.
- General examinations
  - Successful completion of theory comprehensive examinations. Students are required to take two comprehensive examinations in microeconomic and macroeconomic theory after the end of the Winter session (usually June) in Year 1 of their program. Performance on these exams is evaluated on a distinction/pass/fail basis. If a theory comprehensive examination is failed on the first attempt, it must be re-taken later in the Summer (usually in August) of the same year.
  - If a student does not obtain a minimum grade of A in every course required for their major field of specialization, or took some of the required courses during their MA in Economics program at the University of Toronto, the student is required to take a field comprehensive examination in their major field of specialization after the end of the Winter session in Year 2 (usually June). If the exam is failed, it must be re-taken later in the Summer (usually in August) of the same year. The major fields of specialization offered regularly are:
    - Behavioural Economics
    - Econometrics
    - Economic Development
    - Financial Economics
    - Industrial Organization
    - International Economics
    - Labour Economics
    - Macroeconomics
    - Microeconomic Theory
    - Public Economics.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Economics' additional admission requirements stated below.
- Minimum A– standing in the last two years of study in a bachelor’s program in economics or a related field, such as finance, statistics, or mathematics. Because admission is competitive, accepted applicants will normally have achieved a standing considerably higher than the minimum A–.
- A strong preparation in advanced mathematics, statistics, and economics.
- All applicants who do not hold a degree from a Canadian university must submit an official Graduate Record Examination (GRE) General Test score. Applicants who hold a degree from a Canadian university are strongly encouraged to submit an official GRE General Test score. See the departmental website for details.

Program Requirements

- Students must maintain a minimum average of B+ throughout their coursework and successfully complete a total of 6.0 full-course equivalents (FCEs) as follows:
  - **Year 1**: normally two half courses in each area (3.0 FCEs), as follows:
    - Microeconomics (ECO2200H and ECO2201H)
    - Macroeconomics (ECO2100H and ECO2101H)
    - Econometrics (ECO2400H and ECO2401H)
  - **Year 2**: six half courses (3.0 FCEs), including the required courses for a major field of specialization and a minor field of specialization.
    - Students must write an original paper in Year 2 and present it in the relevant workshop in the Fall session of Year 3.
    - Students must also take ECO4060Y0 Graduate Research Seminar (1.0 FCE) in Year 2 and complete it by the end of Year 3.
- A thesis based on original research.
- General examinations.
  - Successful completion of theory comprehensive examinations. Students must take two comprehensive examinations in microeconomic and macroeconomic theory after the end of the Winter session (usually June) in Year 1 of their program. Performance on these exams is evaluated on a distinction/pass/fail basis. If a theory comprehensive examination is failed on the first attempt, it must be re-taken later in the Summer (usually in August) of the same year.
  - If a student does not obtain a minimum grade of A in every course required for their major field of specialization, the student must take a field comprehensive examination in their major field of specialization after the end of the Winter session in Year 2 (usually June). If the exam is failed, it must be re-taken...
later in the Summer (usually in August) of the same year. The major fields of specialization offered regularly are:

- Behavioural Economics
- Econometrics
- Economic Development
- Financial Economics
- Industrial Organization
- International Economics
- Labour Economics
- Macroeconomics
- Microeconomic Theory
- Public Economics.

Program Length

5 years

Time Limit

7 years

*Course that may continue over a program. The course is graded when completed.*

Economics: Economics MA, PhD Courses

Not all courses are offered every year. Please refer to the department's website for a current course list.

Preliminary Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO1010H</td>
<td>Mathematics and Statistics for MA and MFE Students (Credit/No Credit)</td>
</tr>
<tr>
<td>ECO2010H</td>
<td>Mathematics and Statistics for PhD Students (Credit/No Credit)</td>
</tr>
</tbody>
</table>

Core Courses in Economic Theory

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO1100H</td>
<td>Economic Theory — Macro (for MA students only)</td>
</tr>
<tr>
<td>ECO1200H</td>
<td>Economic Theory — Micro (for MA students only)</td>
</tr>
<tr>
<td>ECO2100H</td>
<td>Macroeconomic Theory I</td>
</tr>
<tr>
<td>ECO2101H</td>
<td>Macroeconomic Theory II (prerequisite: ECO2100H)</td>
</tr>
<tr>
<td>ECO2105H</td>
<td>Applied Macroeconomics (corequisites: ECO2100H and ECO2101H)</td>
</tr>
<tr>
<td>ECO2200H</td>
<td>Microeconomic Theory I</td>
</tr>
<tr>
<td>ECO2201H</td>
<td>Microeconomic Theory II (prerequisite: ECO2200H)</td>
</tr>
</tbody>
</table>

Advanced Microeconomic Theory

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ECO2205H</td>
<td>Applied Microeconomics (corequisites: ECO2200H and ECO2201H)</td>
</tr>
</tbody>
</table>

Behavioural and Experimental Economics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO1250H</td>
<td>Topics in Behavioural Economics</td>
</tr>
<tr>
<td>ECO3250H</td>
<td>Behavioural Economics</td>
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</tbody>
</table>

Econometrics

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ECO1400H</td>
<td>Econometrics (for MA students only)</td>
</tr>
<tr>
<td>ECO1450H</td>
<td>Methods for Empirical Microeconomics (exclusions: ECO439H, ECO2803H)</td>
</tr>
<tr>
<td>ECO2400H</td>
<td>Econometrics I</td>
</tr>
<tr>
<td>ECO2401H</td>
<td>Econometrics II (prerequisite: ECO1400H or ECO2400H)</td>
</tr>
<tr>
<td>ECO2404H</td>
<td>Empirical Applications of Economic Theory (exclusion: ECO418H)</td>
</tr>
<tr>
<td>ECO2405H</td>
<td>Applied Econometrics (corequisites: ECO2400H and ECO2401H)</td>
</tr>
<tr>
<td>ECO2411H</td>
<td>Financial Econometrics (exclusion: ECO462H)</td>
</tr>
<tr>
<td>ECO2460H</td>
<td>Economic Applications of Machine Learning</td>
</tr>
<tr>
<td>ECO3400H</td>
<td>Topics in Econometrics</td>
</tr>
<tr>
<td>ECO3401H</td>
<td>Advanced Econometrics</td>
</tr>
<tr>
<td>ECO3450H</td>
<td>Advanced Methods for Empirical Microeconomics</td>
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</table>
## Economic Development

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO1700H</td>
<td>Economic Development</td>
</tr>
<tr>
<td>ECO1730H</td>
<td>Economic Development of China (exclusion: ECO435H)</td>
</tr>
<tr>
<td>ECO2701H</td>
<td>Development Economics I</td>
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## Economic History

<table>
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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ECO2750H</td>
<td>Topics in North American Economic History</td>
</tr>
</tbody>
</table>

## Financial Economics

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO1500H</td>
<td>Financial Economics: Asset Pricing (exclusion: ECO419H)</td>
</tr>
<tr>
<td>ECO1501H</td>
<td>Financial Economics: Corporate Finance</td>
</tr>
<tr>
<td>ECO1502H</td>
<td>Empirical Methods for Financial Economics (exclusion: ECO464H)</td>
</tr>
<tr>
<td>ECO1550H</td>
<td>Economics of Financial Risk Management (exclusions: ECO461H, RSM435H)</td>
</tr>
<tr>
<td>ECO1551H</td>
<td>Topics in Risk Management</td>
</tr>
</tbody>
</table>

## Macroeconomics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO1102H</td>
<td>Macroeconometric Models for Policy Analysis and Forecasting (exclusion: ECO416H)</td>
</tr>
<tr>
<td>ECO2104H</td>
<td>Quantitative Macroeconomics</td>
</tr>
<tr>
<td>ECO2107H</td>
<td>Monetary Theory</td>
</tr>
<tr>
<td>ECO2120H</td>
<td>Topics in Growth and Development</td>
</tr>
<tr>
<td>ECO3100H</td>
<td>Frontiers in Macroeconomics (prerequisites: ECO2100H and ECO2201H)</td>
</tr>
<tr>
<td>ECO3101H</td>
<td>Topics in Macroeconomic Theory</td>
</tr>
<tr>
<td>ECO3102H</td>
<td>Topics in Business Cycles (exclusion: ECO438H)</td>
</tr>
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</table>

## Public Economics

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ECO2600H</td>
<td>Public Economics I</td>
</tr>
<tr>
<td>ECO2601H</td>
<td>Public Economics II</td>
</tr>
<tr>
<td>ECO2607H</td>
<td>Economics of Education Policy</td>
</tr>
<tr>
<td>ECO2610H</td>
<td>Health Economics</td>
</tr>
<tr>
<td>ECO2620H</td>
<td>Topics in Health Economics</td>
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## Industrial Organization

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO1900H</td>
<td>Industrial Organization and Competition Policy</td>
</tr>
<tr>
<td>ECO3900H</td>
<td>Industrial Organization I</td>
</tr>
<tr>
<td>ECO3901H</td>
<td>Industrial Organization II</td>
</tr>
</tbody>
</table>

## International Economics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO1300H</td>
<td>International Macroeconomics</td>
</tr>
<tr>
<td>ECO1301H</td>
<td>International Financial Markets</td>
</tr>
<tr>
<td>ECO2302H</td>
<td>Networks in Trade and Macroeconomics</td>
</tr>
<tr>
<td>ECO3300H</td>
<td>International Trade Theory</td>
</tr>
<tr>
<td>ECO3301H</td>
<td>International Trade II (prerequisite: ECO3300H)</td>
</tr>
<tr>
<td>ECO3302H</td>
<td>Topics in International Trade</td>
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</table>

## Labour Economics

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ECO2802H</td>
<td>Economics Inside Organizations</td>
</tr>
<tr>
<td>ECO2804H</td>
<td>Social Economics</td>
</tr>
<tr>
<td>ECO3800H</td>
<td>Labour Economics I</td>
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<tr>
<td>ECO3801H</td>
<td>Labour Economics II</td>
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## Other Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO1320H</td>
<td>International Trade Regulation (exclusions: ECO459H and LAW285H/LAW2038H)</td>
</tr>
<tr>
<td>ECO1950H</td>
<td>Economic Analysis of Law</td>
</tr>
<tr>
<td>ECO1960H</td>
<td>Energy and Regulation (exclusion: ECO414H)</td>
</tr>
<tr>
<td>ECO2650H</td>
<td>Political Economy (exclusion: ECO434H)</td>
</tr>
<tr>
<td>ECO2850H</td>
<td>Urban and Regional Economics</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
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<tr>
<td>ECO4050H</td>
<td>Special Field Reading Course*</td>
</tr>
<tr>
<td>ECO4051H</td>
<td>Special Field Reading Course#</td>
</tr>
<tr>
<td>ECO4060Y</td>
<td>Graduate Research Seminar (Credit/No Credit)</td>
</tr>
</tbody>
</table>

* The department is normally prepared to supervise reading courses in a variety of fields. Reading courses are available only to students who have the requisite preparation and only at the discretion of faculty members.

# Course that may continue over a program. The course is graded when completed.
Electrical and Computer Engineering

Electrical and Computer Engineering: Introduction

Faculty Affiliation

Applied Science and Engineering

Degree Programs

Electrical and Computer Engineering

MASc

- Fields:
  - Biomedical Engineering;
  - Communications;
  - Computer Engineering;
  - Electromagnetics;
  - Electronics;
  - Energy Systems;
  - Photonics;
  - Systems Control

- Emphases:
  - Robotics (admissions have been administratively suspended);
  - Sustainable Energy

MEng

- Emphases:
  - Analytics;
  - Biomedical Engineering;
  - Communications;
  - Computer Engineering;
  - Electromagnetics;
  - Electronics;
  - Energy Systems;
  - Engineering and Globalization;
  - Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE);
  - Identity, Privacy and Security (IPS);
  - Photonics;
  - Robotics;
  - Sustainable Energy;
  - Systems Control

PhD

- Fields:
  - System Control
  - Biomedical Engineering;
  - Communications;
  - Computer Engineering;
  - Electromagnetics;
  - Electronics;
  - Energy Systems;
  - Photonics

- Emphases:
  - Robotics (admissions have been administratively suspended);
  - Sustainable Energy

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Biomedical Engineering
  - Electrical and Computer Engineering, MASc, PhD
- Neuramodulation
  - Electrical and Computer Engineering, MASc, PhD
- Psychology, Psychiatry and Engineering
  - Electrical and Computer Engineering, MASc, PhD
- Robotics
  - Electrical and Computer Engineering, MASc, PhD

Overview

During the past few decades, we have witnessed exciting new discoveries and developments in almost every aspect of electrical and computer engineering, including microelectronics, computers, communication networks, photonics, alternative energy systems, robotics, and many others. At the intersection of computers and communications there are opportunities that are limited only by our imagination. Along with these highly visible developments, there are equally impressive achievements in building the theoretical underpinnings of the respective areas of knowledge. Graduate studies provide the highly qualified individuals who are the lifeblood of the research leading to these advances.

The Department of Electrical and Computer Engineering is engaged in the pursuit and dissemination of knowledge across a wide range of areas of engineering and applied science — from the fabrication of atomic-level structures with special optical properties, through to the technologies that have revolutionized our world, such as microelectronics, computer systems, software, and networks.

The department conducts research in the following fields of study: Biomedical Engineering, Communications, Computer Engineering, Electromagnetics, Electronics, Energy Systems, Photonics, and System Control.

Contact and Address

Web: www.ece.utoronto.ca
Email: ecegradoffice@utoronto.ca
Telephone: (416) 978-5804

The Edward S. Rogers Sr. Department of Electrical and Computer Engineering
University of Toronto
Sandford Fleming Building
Room 1107, 10 King's College Road
Toronto, Ontario M5S 3G4
Canada
Electrical and Computer Engineering:
Graduate Faculty

Full Members

Aarabi, Parham - BASc, MASc, PhD
Abdelrahman, Tarek - BSc, MSc, PhD
Adve, Ravi - BTech, PhD
Aitchison, J. Stewart - BSc, PhD
Amza, Cristina - BS, MS, PhD
Anderson, Jason Helge - BSc, MASc, PhD
Bardakjian, Berj - BSc, BEd, MASc, PhD
Betz, Vaughn - BSc, MS, PhD
Broucke, Mireille - BScEE, MS, PhD
Brown, Stephen - BScEE, MASc, PhD
Chan Carusone, Anthony - BASc, PhD
Chapman, Margaret - PhD
Chechik, Marsha - BA, PhD
Eleftheriades, George - Diploma, MSEE, PhD
Enright Jerger, Natalie - BSc, MSc, PhD
Frey, Brendan - BSc, MSc, PhD
Genov, Roman - BS, MS, PhD
Goel, Ashvin - BTech, MS, PhD
Gulak, Glenn - BASc, MSc, PhD
Hatzinakos, Dimitrios - Diploma, MSc, PhD
Helmy, Amr - BSc, MSc, PhD
Iizuka, Keigo - BS, ME, MS, PhD
Kunov, Hans - MSc, PhD
Kwong, Raymond - SB, SM, PhD
Pasupathy, Subbarayan - BE, MPH, PhD
Salama, Andre - BASc, MASc, PhD
Semlyen, Adam - PhD, PhD
Shokrollah-Shahrabadi, Hamid - PhD
Sivanandam, Suresh - PhD
Stickel, Micah - BASc, MASc, PhD
Zariffa, Jose - DrEng

Members Emeriti

Blake, Ian - BASc, MASc, PhD
Bonert, Richard - Diploma, DE
Cobbold, Richard - PhD
Davison, Edward - BASc, MA, PhD, ARCT
Iizuka, Keigo - BS, ME, MS, PhD
Kunov, Hans - MSc, PhD
Kwong, Raymond - SB, SM, PhD
Pasupathy, Subbarayan - BE, MPH, PhD
Salama, Andre - BASc, MASc, PhD
Semlyen, Adam - PhD, PhD
Smith, Peter - BSc, MSc, PhD
Vranesic, Zvonko - BASc, MASc, PhD
Wonham, Walter - BEng, PhD
Zukotynski, Stefan - MASc, PhD

Associate Members

Al Janaideh, Mohammad - PhD
Asare, Philip - BScEE, MSEE, PhD
Caldwell, Trevor - PhD
Chisholm, William - BASc, MEng, PhD
de Lara, Eyal - BS, MS, PhD
Dong, Min - BEng, PhD
Franklin, Daniel - PhD
Gibson, Courtney - BASc, MASc
Goldenberg, Anna - PhD, PhD
Jeffrey, Mark Christopher - PhD, PhD
Lawryshyn, Yuri - Diploma, BASc, MASc, MBA, PhD
Lee, Chi-Guhn - DPhil
Liu, Xilin - PhD
Makhzani, Alireza - PhD
Maljevic, Ivo - PhD
Shahbazpanahi, Shahram - PhD
Shokrollah-Timorabadi, Hamid - PhD
Sivanandam, Suresh - PhD
Stickel, Micah - BASc, MASc, PhD
Strauss, John - MD
Tavallaee, Mohammad Ali - PhD
Valiante, Taufik - BSc, MD, PhD
Wong, Willy - BSc, MSc, PhD
Electrical and Computer Engineering: Electrical and Computer Engineering MASc

Master of Applied Science

Program Description

The MASc provides students with an opportunity to pursue advanced studies in the particular area of interest and an opportunity to engage in research.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Electrical and Computer Engineering’s additional admission requirements stated below.
- An appropriate bachelor’s degree in electrical and computer engineering or its equivalent from a recognized university.
- High academic standing equivalent to a mid-B or better, normally demonstrated by an average grade in the final year or over senior-level courses.

Program Requirements

- Each student's program of study must receive the approval of the Department of Electrical and Computer Engineering and, in general, shall consist of a research or design project on which a thesis must be submitted.
- During Year 1, students are required to attend the ECE Colloquium and complete JDE1000H Ethics in Research (0.0 FCE).
- Coursework. Normally, completion of 2.5 graduate full-course equivalents (FCEs) or five half courses. Students whose undergraduate preparation does not include the study of subjects deemed to be necessary for research in the chosen area will be required to complete additional courses.
- Thesis. This thesis shall demonstrate the student's ability to do independent work in relating, organizing, and extending existing techniques where required, and in suggesting and developing new approaches to problems in an area of applied science and engineering.
- Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Electrical and Computer Engineering MASc, MEng, PhD Emphases section.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Electrical and Computer Engineering: Electrical and Computer Engineering MEng

Master of Engineering

Program Description

The MEng program is designed to provide professional training beyond the undergraduate level and to accelerate careers with specialized engineering expertise needed in business, government, and industry.

The MEng program can be taken on a full-time, extended full-time, or part-time basis.

Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Electrical and Computer Engineering’s additional admission requirements stated below.
- An appropriate bachelor’s degree in electrical and computer engineering or its equivalent from a recognized university.
- High academic standing equivalent to a mid-B or better, normally demonstrated by an average grade in the final year or over senior-level courses.

Program Requirements

- Coursework. Normally, completion of 4.5 graduate full-course equivalents (FCEs) or nine half courses for applicants with adequate undergraduate preparation. At least 2.5 graduate FCEs or five half courses must be drawn from graduate courses offered by the Department of Electrical and Computer Engineering.
- Students may choose to complete an engineering project with an equivalent value of 1.5 FCEs. Students choosing the project option will be required to complete a total of 3.0 FCEs in addition to the project. In order to pursue the project option, the student must secure a professor who will act as the supervisor throughout the project.
- Students have the option of completing an emphasis in Analytics; Biomedical Engineering; Communications; Computer Engineering; Electromagnetics; Electronics; Energy Systems; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Identity, Privacy and Security (IPS); Photonics; Robotics; Sustainable Energy; or Systems Control as part of their degree program. Please see details in the Electrical and Computer Engineering MASc, MEng, PhD Emphases section.

Program Length

3 sessions (typical registration sequence: F/W/S)
Extended Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Electrical and Computer Engineering’s additional admission requirements stated below.
- An appropriate bachelor's degree in electrical and computer engineering or its equivalent from a recognized university.
- High academic standing equivalent to a mid-B or better, normally demonstrated by an average grade in the final year or over senior-level courses.

Program Requirements

- Students are expected to complete the requirements in six sessions (two years) and are limited to six half courses per year and three half courses per session.
- **Coursework.** Normally, completion of 4.5 graduate full-course equivalents (FCEs) or nine half courses for applicants with adequate undergraduate preparation. At least 2.5 graduate FCEs or five half courses must be drawn from graduate courses offered by the Department of Electrical and Computer Engineering.
- Students may choose to complete an engineering project with an equivalent value of 1.5 FCEs. Students choosing the project option will be required to complete a total of 3.0 FCEs in addition to the project. In order to pursue the project option, the student must secure a professor who will act as the supervisor throughout the project.
- Students have the option of completing an emphasis in Analytics; Biomedical Engineering; Communications; Computer Engineering; Electromagnetics; Electronics; Energy Systems; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Identity, Privacy and Security (IPS); Photonics; Robotics; Sustainable Energy; or Systems Control as part of their degree program. Please see details in the Electrical and Computer Engineering MASc, MEng, PhD Emphases section.

Program Length

6 sessions (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

Part-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Electrical and Computer Engineering's additional admission requirements stated below.
- An appropriate bachelor's degree in electrical and computer engineering or its equivalent from a recognized university.
- High academic standing equivalent to a mid-B or better, normally demonstrated by an average grade in the final year or over senior-level courses.

Program Requirements

- Students normally complete the requirements in nine sessions (three years). They are limited to four half courses per year and two half courses per session.
- **Coursework.** Normally, completion of 4.5 graduate full-course equivalents (FCEs) or nine half courses for applicants with adequate undergraduate preparation. At least 2.5 graduate FCEs or five half courses must be drawn from graduate courses offered by the Department of Electrical and Computer Engineering.
- Students may choose to complete an engineering project with an equivalent value of 1.5 FCEs. Students choosing the project option will be required to complete a total of 3.0 FCEs in addition to the project. In order to pursue the project option, the student must secure a professor who will act as the supervisor throughout the project.
- Students have the option of completing an emphasis in Analytics; Biomedical Engineering; Communications; Computer Engineering; Electromagnetics; Electronics; Energy Systems; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Identity, Privacy and Security (IPS); Photonics; Robotics; Sustainable Energy; or Systems Control as part of their degree program. Please see details in the Electrical and Computer Engineering MASc, MEng, PhD Emphases section.

Program Length

9 sessions

Time Limit

6 years

Electrical and Computer Engineering: Electrical and Computer Engineering PhD

Doctor of Philosophy

Program Description

The PhD program is designed for exceptional individuals who intend to pursue a career in fundamental or applied research.
Applicants may enter the PhD program via one of three routes: 1) following completion of the University of Toronto master's degree in Electrical and Computer Engineering or its equivalent from a recognized university; 2) transfer from the University of Toronto MASc program; or 3) direct entry for exceptionally qualified students with an appropriate bachelor's degree from a recognized university.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Electrical and Computer Engineering's additional admission requirements stated below.
- Admission may be granted for applicants with a University of Toronto master's degree in Electrical and Computer Engineering with an overall average of at least B+, or its equivalent from a recognized university.
- The department must be satisfied of the student's ability to do advanced research before admission may be granted.

Program Requirements

- Coursework. Normally, students who enter the PhD with a master's degree will complete 2.5 full-course equivalents (FCEs) not previously used for other degree credit. Students may receive a course reduction of up to 1.0 FCE depending on their PhD research needs in relation to their studies at the master's level. The number of required courses will be determined by the Associate Chair, Graduate Studies, in consultation with the PhD supervisor.
- During Year 1, each student must:
  - pass a qualifying oral examination in the area of research;
  - attend the ECE Colloquium;
  - complete JDE1000H Ethics in Research (0.0 FCE) if they have not already done so in a previous University of Toronto master's program.
- Thesis.
- Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Electrical and Computer Engineering MASc, MEng, PhD Emphases section.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Electrical and Computer Engineering's additional admission requirements stated below.
- Admission may be granted by direct entry for exceptionally qualified students with an appropriate bachelor's degree from a recognized university.
- The department must be satisfied of the student's ability to do advanced research before admission may be granted.

Program Requirements

- Coursework. Students must complete 4.0 graduate full-course equivalents (FCEs).
- During Year 1, each student must:
  - pass a qualifying oral examination in the area of research;
  - attend the ECE Colloquium;
  - complete JDE1000H Ethics in Research (0.0 FCE) if they have not already done so in a previous University of Toronto master's program.
- Thesis.

PhD Program (Transfer)

Transfer Requirements

- Admission may be granted to applicants via transfer from the MASc to the PhD program, upon completion of 2.5 graduate full-course equivalents (FCEs) with an overall average of at least B+.
• Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Electrical and Computer Engineering MASc, MEng, PhD Emphases section.

Program Length
5 years

Time Limit
7 years

Electrical and Computer Engineering: Electrical and Computer Engineering MASc, MEng, PhD Emphases

Emphasis: Analytics (MEng only)

To be admitted to the emphasis in Analytics, MEng students must first successfully complete a prerequisite course APS1070H (0.5 full-course equivalent [FCE]).

Subsequently, to earn the emphasis, students must successfully complete four additional half courses (2.0 FCEs) from the list of core courses or elective courses. These must include at least one core course; the remaining courses must be selected from the list of elective courses.

Students must have completed the prerequisite course APS1070H before taking any of the core courses.

Prerequisite Course

APS1070H Foundations of Data Analytics and Machine Learning.

Core Courses

CHE1147H Data Mining in Engineering
ECE1513H Introduction to Machine Learning (exclusions: CSC411H1, CSC2515H, ECE421H1, ECE1504H)
MIE1624H Introduction to Data Science and Analytics (exclusion: MIE1626H)
MIE1626H Data Science Methods and Statistical Learning (exclusion: MIE1624H)
MSE1065H Application of Artificial Intelligence in Materials Design (exclusion: MSE1063H).

Elective Courses


Emphasis: Biomedical Engineering (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- Any JEB14XXH course
- ECE1774H Sensory Cybernetics
- ECE2500Y Master of Engineering Project (topic in biomedical engineering; counts as one course towards the emphasis).

Students may include other biomedical engineering-related courses subject to the approval of the ECE Associate Chair for Graduate Studies.

Emphasis: Communications (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- ECE537H1 Random Processes
- Any ECE15XXH course
- ECE2500Y Master of Engineering Project (topic in communications; counts as one course towards the emphasis).

Emphasis: Computer Engineering (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- ECE516H1 Intelligent Image Processing
- ECE532H1 Digital Systems Design
- ECE552H1 Computer Architecture
- ECE568H1 Computer Security
- Any ECE17XXH course
- ECE2500Y Master of Engineering Project (topic in computer engineering; counts as one course towards the emphasis).

Emphasis: Electromagnetics (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- Any ECE12XXH course
- ECE2500Y Master of Engineering Project (topic in electromagnetics; counts as one course towards the emphasis).
Emphasis: Electronics (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- Any ECE13XXH course
- ECE2500Y Master of Engineering Project (topic in electronics; counts as one course towards the emphasis).

Emphasis: Energy Systems (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- Any ECE10XXH course
- ECE2500Y Master of Engineering Project (topic in energy systems; counts as one course towards the emphasis).

Emphasis: Engineering and Globalization (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) from the following lists, with at least two half courses (or one full course) taken from Group A.

Group A
APS510H1, APS530H1, APS1420H, JCR1000Y (full-year course).

Group B
APS1015H, APS1020H, APS1024H, CHL5700H, CIV1399H.

Note: Students who choose to pursue an MEng project in their home department that aligns with the Centre for Global Engineering (CGEN)'s disciplinary focus, as deemed by the CGEN Director, may count the project as one required Group B course.

Students who complete the requirements of the emphasis in Engineering and Globalization and wish to obtain a notation on their transcripts should contact the Faculty Graduate Studies office.

Emphasis: Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) (MEng only)

MEng students must successfully complete any four of the following courses (2.0 full-course equivalents [FCEs]):

Leadership

Entrepreneurship and Innovation
APS111H1, APS1012H, APS1013H, APS1015H, APS1023H, APS1033H, APS1035H, APS1036H, APS1041H, APS1061H, APS1088H.

Finance and Management

Engineering and Society
APS510H1, APS1018H, APS1024H, APS1025H, APS1031H, APS1034H, APS1101H, APS1420H.

Emphasis: Identity, Privacy and Security (IPS) (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) as follows:

- JIE1001H/ECE1518H Seminar in Identity, Privacy, and Security (0.5 FCE)
- Two courses (1.0 FCE) from:
  - ECE568H1, ECE1517H, ECE1529H, ECE1776H, ECE1778H
- And one course (0.5 FCE) from:
  - INF2124H, INF2181H, INF2241H.

Emphasis: Photonics (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- Any ECE14XXH course
- ECE2500Y Master of Engineering Project (topic in photonics; counts as one course towards the emphasis).

Emphasis: Robotics (MEng only)

Students must successfully complete four courses (2.0 full-course equivalents [FCEs]) chosen from at least two of the following groups, and no more than two in any given group:

Group 1: Planning and Control
AER1516H, AER1517H, ECE557H1 (exclusion: ECE410H1), ECE1635H, ECE1636H, ECE1647H, ECE1653H, ECE1657H, MIE1064H.

Group 2: Perception and Learning
AER1513H, AER1515H, CSC2503H, CSC2506H, CSC2515H, CSC2541H, CSC2548H, ECE516H1, ECE1511H, ECE1512H,
Emphasis: Systems Control (MEng only)

MEng students must successfully complete at least four courses from those listed below. Students may double-count one course at most towards any ECE emphasis.

- ECE557H1 *Linear Control Theory*
- Any ECE16XXH course
- ECE2500Y *Master of Engineering Project* (topic in systems control; counts as one course towards the emphasis).

Electrical and Computer Engineering: Electrical and Computer Engineering MASc, MEng, PhD Courses

The following groups of courses in the more distinct fields of graduate study in electrical and computer engineering are presented for student guidance in selecting courses. Suitable courses offered by other departments may be selected subject to the approval of the Department of Electrical and Computer Engineering. Students registered in a graduate degree program which involves research are required to complete the seminar course JDE1000H *Ethics in Research* during their first year of registration. The department should be consulted each session as to course offerings.

Biomedical Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HAD5751H</td>
<td>AI Development and Implementation in Health Care</td>
</tr>
<tr>
<td>JEB1433H</td>
<td>Medical Imaging</td>
</tr>
<tr>
<td>JEB1444H</td>
<td>Neural Engineering</td>
</tr>
<tr>
<td>JEB1447H</td>
<td>Sensory Communications</td>
</tr>
<tr>
<td>MIE1052H</td>
<td>Signal Processing for Bioengineering</td>
</tr>
</tbody>
</table>

Communications

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ECE537H1</td>
<td>Random Processes</td>
</tr>
<tr>
<td>ECE1501H</td>
<td>Error Control Codes</td>
</tr>
<tr>
<td>ECE1502H</td>
<td>Information Theory</td>
</tr>
<tr>
<td>ECE1503H</td>
<td>Graphs, Error-Correction Coding, and Inference</td>
</tr>
<tr>
<td>ECE1504H</td>
<td>Statistical Learning (exclusions: CSC311H1, CSC2515H, ECE421H1, and ECE1513H)</td>
</tr>
<tr>
<td>ECE1505H</td>
<td>Convex Optimization</td>
</tr>
<tr>
<td>ECE1508H</td>
<td>Special Topics in Communications</td>
</tr>
<tr>
<td>ECE1511H</td>
<td>Signal Processing</td>
</tr>
</tbody>
</table>

Contact

All students are asked to register with Climate Positive Energy (CPE) at emphasis@cpe.utoronto.ca, at the beginning of their studies, to receive information about energy-related activities and opportunities on campus. CPE also administers a number of awards and scholarships for which students may be eligible.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECE1512H</td>
<td>Digital Image Processing and Applications</td>
</tr>
<tr>
<td>ECE1513H</td>
<td>Introduction to Machine Learning (prerequisite: ECE302H or equivalent; exclusions: CSC411H1, CSC2515H, ECE421H1, and ECE1504H)</td>
</tr>
<tr>
<td>ECE1517H</td>
<td>Biometric Systems</td>
</tr>
<tr>
<td>ECE1518H</td>
<td>Seminar in Identity, Privacy, and Security</td>
</tr>
<tr>
<td>ECE1521H</td>
<td>Detection and Estimation Theory</td>
</tr>
<tr>
<td>ECE1522H</td>
<td>Data Communications II</td>
</tr>
<tr>
<td>ECE1524H</td>
<td>Service Provider Networks</td>
</tr>
<tr>
<td>ECE1529H</td>
<td>Adaptive Systems for Signal Processing and Communications</td>
</tr>
<tr>
<td>ECE1541H</td>
<td>Communication Networks I</td>
</tr>
<tr>
<td>ECE1542H</td>
<td>Communication Networks II</td>
</tr>
<tr>
<td>ECE1543H</td>
<td>Mobile Communications Systems</td>
</tr>
<tr>
<td>ECE1545H</td>
<td>Bridges and Routers Planning</td>
</tr>
<tr>
<td>ECE1548H</td>
<td>Advanced Network Architectures</td>
</tr>
<tr>
<td>ECE1549H</td>
<td>Stochastic Networks</td>
</tr>
<tr>
<td>ECE1551H</td>
<td>Mobile Broadband Radio Access Network (prerequisite: ECE316H1; exclusion: ECE1508H)</td>
</tr>
<tr>
<td>ECE1552H</td>
<td>Modern Mobile Air Interfaces (prerequisite: ECE316H1)</td>
</tr>
</tbody>
</table>

**Computer Engineering**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ECE516H1</td>
<td>Intelligent Image Processing</td>
</tr>
<tr>
<td>ECE532H1</td>
<td>Digital Systems Design</td>
</tr>
<tr>
<td>ECE1718H</td>
<td>Special Topics in Computer Hardware Design</td>
</tr>
<tr>
<td>ECE1754H</td>
<td>Compilation Techniques for Parallel Processors</td>
</tr>
<tr>
<td>ECE1755H</td>
<td>Parallel Computer Architecture and Programming</td>
</tr>
<tr>
<td>ECE1756H</td>
<td>Reconfigurable Computing and FPGA Architecture</td>
</tr>
<tr>
<td>ECE1762H</td>
<td>Algorithms and Data Structures</td>
</tr>
<tr>
<td>ECE1767H</td>
<td>Design for Test and Testability</td>
</tr>
<tr>
<td>ECE1769H</td>
<td>Behavioural Synthesis of Digital Integrated Circuits</td>
</tr>
<tr>
<td>ECE1770H</td>
<td>Trends in Middleware Systems — Selected Topics and Concepts</td>
</tr>
<tr>
<td>ECE1771H</td>
<td>Quality of Service</td>
</tr>
<tr>
<td>ECE1774H</td>
<td>Sensory Cybernetics</td>
</tr>
<tr>
<td>ECE1776H</td>
<td>Computer Security, Cryptography, and Privacy</td>
</tr>
<tr>
<td>ECE1777H</td>
<td>Computer Methods for Circuit Simulation</td>
</tr>
<tr>
<td>ECE1778H</td>
<td>Creative Applications for Mobile Devices</td>
</tr>
<tr>
<td>ECE1779H</td>
<td>Introduction to Cloud Computing</td>
</tr>
<tr>
<td>ECE1780H</td>
<td>Advanced Mobile User Interfaces</td>
</tr>
<tr>
<td>ECE1781H</td>
<td>Dependable Software Systems (prerequisite: ECE344H1 or similar)</td>
</tr>
<tr>
<td>ECE1782H</td>
<td>Programming Massively Parallel Multiprocessors and Heterogeneous Systems</td>
</tr>
<tr>
<td>ECE1783H</td>
<td>Design Tradeoffs in Digital Systems</td>
</tr>
<tr>
<td>ECE1784H</td>
<td>Trustworthy Machine Learning</td>
</tr>
<tr>
<td>ECE1785H</td>
<td>Empirical Software Engineering</td>
</tr>
<tr>
<td>ECE1786H</td>
<td>Creative Applications of Natural Language Processing (prerequisite: APS360H1, CSC311H1, ECE324H1, ECE1513H, or equivalent with permission of the instructor)</td>
</tr>
</tbody>
</table>

**Electromagnetics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECE1228H</td>
<td>Electromagnetic Theory</td>
</tr>
<tr>
<td>ECE1229H</td>
<td>Advanced Antenna Theory</td>
</tr>
<tr>
<td>ECE1243H</td>
<td>Topics in Electromagnetic Waves</td>
</tr>
<tr>
<td>ECE1252H</td>
<td>Introduction to Computational Electrodynamics</td>
</tr>
<tr>
<td>ECE1254H</td>
<td>Modeling of Multiphysics Systems</td>
</tr>
<tr>
<td>ECE1256H</td>
<td>Microwave Circuits</td>
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**Electronics**

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>ECE534H1</td>
<td>Integrated Circuit Engineering</td>
</tr>
<tr>
<td>ECE1334H</td>
<td>Selected Topics in Solid State Electronics/VLSI Technology</td>
</tr>
<tr>
<td>ECE1336H</td>
<td>Semiconductor Physics</td>
</tr>
<tr>
<td>ECE1352H</td>
<td>Analog Circuit Design I</td>
</tr>
<tr>
<td>ECE1360H</td>
<td>Selected Topics in Instrumentation</td>
</tr>
<tr>
<td>ECE1365H</td>
<td>High Frequency Integrated Circuits</td>
</tr>
<tr>
<td>ECE1371H</td>
<td>Advanced Topics in Analog Circuits</td>
</tr>
<tr>
<td>ECE1373H</td>
<td>Digital Design for Systems-on-Chip</td>
</tr>
<tr>
<td>ECE1379H</td>
<td>Introduction to Compound Semiconductor Devices</td>
</tr>
<tr>
<td>ECE1387H</td>
<td>CAD for Digital Circuit Synthesis and Layout</td>
</tr>
<tr>
<td>Course Code</td>
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<tr>
<td>ECE1030H</td>
<td>Space Vector Theory and Control</td>
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<tr>
<td>ECE1049H</td>
<td>Special Topics in Energy Systems</td>
</tr>
<tr>
<td>ECE1055H</td>
<td>Dynamics of HVdc/ac Transmission Systems</td>
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<tr>
<td>ECE1059H</td>
<td>Special Topics in Energy Systems</td>
</tr>
<tr>
<td>ECE1066H</td>
<td>Design of High-Frequency Switch-Mode Power Supplies (SMPS)</td>
</tr>
<tr>
<td>ECE1068H</td>
<td>Introduction to EMC</td>
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<tr>
<td>ECE1085H</td>
<td>Power System Optimization</td>
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<tr>
<td>ECE1086H</td>
<td>Power Management for Photovoltaic Systems</td>
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<tr>
<td>ECE1092H</td>
<td>Smart Grid Case Studies</td>
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<tr>
<td>ECE1093H</td>
<td>Electrical Insulation Design and Coordination</td>
</tr>
<tr>
<td>ECE1094H</td>
<td>Power Systems Operations and Economics</td>
</tr>
<tr>
<td>ECE1095H</td>
<td>Grounding and Bonding</td>
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**Energy Systems**

**Photonics**

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<th>Course Code</th>
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<tr>
<td>ECE1001H</td>
<td>Readings in Cognate Subjects</td>
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**Systems Control**

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<tr>
<td>ECE557H</td>
<td>Linear Control Theory</td>
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<tr>
<td>ECE1635H</td>
<td>Special Topics in Control I</td>
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<tr>
<td>ECE1636H</td>
<td>Control of Discrete-Event Systems I</td>
</tr>
<tr>
<td>ECE1637H</td>
<td>Control of Discrete-Event Systems II</td>
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<tr>
<td>ECE1639H</td>
<td>Analysis and Control of Stochastic Systems I</td>
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<tr>
<td>ECE1647H</td>
<td>Introduction to Nonlinear Control Systems</td>
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<tr>
<td>ECE1653H</td>
<td>Hybrid Systems and Control Applications</td>
</tr>
<tr>
<td>ECE1656H</td>
<td>Nonlinear Modeling and Analysis of Biological Systems</td>
</tr>
<tr>
<td>ECE1657H</td>
<td>Game Theory and Evolutionary Games</td>
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<tr>
<td>ECE1658H</td>
<td>Geometric Nonlinear Control of Robotic Systems</td>
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<tr>
<td>ECE1659H</td>
<td>Robust and Optimal Control</td>
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<td>ECE1660H</td>
<td>Risk-Aware and Stochastic Control Theory with Learning</td>
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**Master of Engineering**

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<tr>
<td>ECE2500Y</td>
<td>Master of Engineering Project</td>
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**Reading Course**

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<td>ECE1001H</td>
<td>Readings in Cognate Subjects</td>
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**APS Engineering Courses**

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<th>Course Code</th>
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<tbody>
<tr>
<td>APS1012H</td>
<td>Managing Business Innovation and Transformational Change</td>
</tr>
<tr>
<td>APS1041H</td>
<td>Inventrepreneurship (Invention and Entrepreneurship)</td>
</tr>
<tr>
<td>APS1043H</td>
<td>Writing Your Own Patent Application</td>
</tr>
<tr>
<td>APS1070H</td>
<td>Foundations of Data Analytics and Machine Learning</td>
</tr>
<tr>
<td>APS1081H</td>
<td>Quantum Machine Learning</td>
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</table>
English

English: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

English

MA

- Fields:
  - American Literature;
  - Aspects of Theory;
  - Canadian Literature;
  - Creative Writing;
  - Medieval Literature;
  - Renaissance Literature;
  - Restoration and Eighteenth-Century Literature;
  - Romantic and Victorian Literature;
  - Twentieth and Twenty-First Century British and Irish Literature;
  - World Literatures in English

PhD

- Fields:
  - American Literature;
  - Aspects of Theory;
  - Canadian Literature;
  - Medieval Literature;
  - Renaissance Literature;
  - Restoration and Eighteenth-Century Literature;
  - Romantic and Victorian Literature;
  - Twentieth and Twenty-First Century British and Irish Literature;
  - World Literatures in English

Combined Degree Programs

STG, Law, JD / English, MA

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Book History and Print Culture**
  - English, MA, PhD
- **Diaspora and Transnational Studies**
  - English, MA, PhD
- **Environmental Studies**
  - English, MA, PhD
- **Jewish Studies**
  - English, MA, PhD
- **Sexual Diversity Studies**
  - English, MA, PhD
- **South Asian Studies**
  - English, MA, PhD
- **Women and Gender Studies**
  - English, MA, PhD
- **Women's Health**
  - English, MA, PhD

Overview

One of the strongest and most diverse graduate English programs in North America, the University of Toronto's graduate program in the Department of English presents a wide array of approaches to the study of literature that includes both rigorous historical scholarship and the innovations of new theoretical, cultural, and interdisciplinary methods. This rich variety is exemplified in the more than 30 graduate seminars offered every year and in the interdisciplinary conjunctions with other departments and collaborative specializations.

Contact and Address

Web: [www.english.utoronto.ca](http://www.english.utoronto.ca)

Email: deptofenglish.graduate@utoronto.ca

Telephone: (416) 978-2526

Fax: (416) 978-2836

Department of English

University of Toronto

Jackman Humanities Building

6th Floor, 170 St. George Street

Toronto, Ontario M5R 2M8

Canada

English: Graduate Faculty

Full Members

Ackerman, Alan - BA, MA, PhD
Bewell, Alan - BA, MA, PhD
Blake, Liza - BA, MPH, MA, PhD
Bolus-Reichert, Christine - BPhil, AM, PhD
Boyagoda, Randy - PhD
Charise, Andrea - BSc, MA, PhD
Clarke, George Elliott - BA, MA, PhD
Cobb, Michael - BA, MA, AM, PhD
Cruz, Denise - BA, MA, PhD
Dancer, Thom - MA, PhD
Dolan, Neal - BA, PhD
Downes, Paul - BA, PhD
Dubois, Andrew - BA, PhD
Esonwanne, Uzoma - BA, MA, PhD
Estherhammer, Angela - BA, PhD
Gallagher-Ross, Jacob - BA, MFA, DFA
Gaston, Kara Susan - BA, MPH, PhD
Gillespie, Alexandra - BA, BSc, PhD
Gniadek, Melissa - BA, MA, MA, PhD
Goldman, Marlene Beth - BFA, MA, PhD
Greene, Richard - PhD
Hammond, Adam - BA, MA, PhD
Harvey, Elizabeth - PhD
Hernandez, Alex - AB, AM, MA, PhD
Hill, Colin - BA, MA, PhD
Jaffe, Audrey - BA, PhD
Kamboureli, Smaro - BA, MA, PhD
Keymer, Thomas - BA, MA, PhD
Kortenaar, Neil ten - BA, MA, PhD
Lamb, Susan - BA, AM, DA
Larson, Katie - BMus, AB, MPH, PhD
Leonard, Garry - BA, MA, PhD
Levene, Mark - BA, MA, PhD
Li, Hao - BA, PhD
Lopez, Jeremy - BA, MA, DPhil
Magnusson, Lynne - BA, MA, PhD
Maurice, Alice - BA, DPhil
McGill, Robert - BA, MPH, MA, PhD
Morgenstern, Naomi - BA, MA, PhD (Chair and Graduate Chair)
Most, Andrea - BA, MA, PhD
Mount, Nick - AM, PhD
Nyquist, Mary - BA, MA, PhD
Percy, Carol - BA, MA, DPhil
Quayson, Ato - BA, PhD
Radovic, Stanka - PhD
Robins, William - BA, MPH, PhD
Robinson, Terry - BA, MA, PhD
Rogers, John - BA, MA, PhD
Rubright, Marjorie - AB, MA, DLitt
Ruti, Mari - BA, MA, PhD
Salih, Sara - BA, DPhil
Schmitt, Cannon - BA, MA, PhD
Seitler, Dana - BA, MA, PhD
Sergi, Matthew - BFA, PhD
Sobecki, Sebastian - PhD
Stern, Simon - BA, JD, PhD, Chair in Electronic Commerce
Stevens, Paul - BA, MA, PhD
Suzack, Cheryl - BA, BE, MA, PhD
Switzky, Lawrence - BA, MA, PhD
Syme, Holger Schott - BA, AM, PhD
Vernon, Karina Joan - BA, MA, PhD
Warley, Christopher - BA, MA, DPhil
Weisman, Karen - BA, PhD
White, Dan - BA, AM, DPhil (Director of Graduate Studies)
Williams, Ian - BA, MA, PhD
Williams, Katherine - BA, MA, PhD
Wright, Daniel - BA, MA, PhD
Xie, Ming - BA, PhD

Members Emeriti

Adamowski, Thomas - PhD
Asals, Frederick - AB, MA, PhD
Auster, Henry - BA, MA, PhD
Cameron, Elspeth - BA, MA, PhD
Chambers, Douglas - PhD
Cook, Eleanor - PhD
Cuddy-Keane, Melba - BA, MA, PhD
Domville, Eric William - BA, PhD
Duffy, Dennis - AB, MA, PhD
Dutka, JoAnna - BA, MA, PhD, ARCT
Halewood, William - AB, MA, PhD
Hayne, Barrie - BA, AM, PhD
Healey, Antonette - BA, MA, PhD
Henderson, Greig - BA, MA, PhD
Hutcheson, Linda - BA, MA, PhD
Johnston, Alexandra - PhD
Leggatt, Alexander - BA, MA, PhD
Li, Victor - BA, MA, PhD
Millgate, Michael - BA, MA, PhD
Murray, Heather - BA, MA, PhD
Saddlemeyer, Ann - PhD, DLitt
Sindell, Michael - BA, MA, PhD
Townsend, David Robert - BA, MA, PhD
Vicari, E. Patricia - BA, MA, PhD
Visser, Colin - BA, BLitt, PhD
Warkentin, Germaine - PhD

Associate Members

Aguila-Way, Tania - BA, MA, PhD
Azubuko-Udah, Comfort - PhD
Baker, Deirdre - BA, MA, PhD
Battersill, Claire - PhD
Blayney, Peter - BA, PhD
Dooley, Ann - BA, MA, PhD
Mehta, Rijuta - BA, MA, PhD
Michelet Pickavé, Fabienne L. - MPH, LèsL, LittD
Newman, Daniel - DLitt
Sharpe, Christina - PhD
Teramura, Misha - BA, AM, PhD
Thomas, Anna - BA, MA, PhD
Tysdal, Daniel - BA, MA

English: English MA

Master of Arts

Program Description

The Master of Arts program offers broad coverage in British, Canadian, Aboriginal, American, and postcolonial literatures, a sophisticated command of current theoretical approaches, and exceptional preparation and intellectual support for significant research.

The MA in English degree program is offered in 10 fields: 9 fields have the same requirements, while the field of Creative Writing has different requirements.

The MA program can be taken on a full-time or part-time basis except in the Creative Writing field, which is taken on a full-time basis only. Requirements for the Creative Writing field are described in a separate section below.

Fields:
1) American Literature; 2) Aspects of Theory; 3) Canadian Literature; 4) Medieval Literature; 5) Renaissance Literature; 6) Restoration and Eighteenth-Century Literature; 7) Romantic and Victorian Literature; 8) Twentieth and Twenty-First Century British and Irish Literature; 9) World Literatures in English

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of English's additional admission requirements stated below.
- A minimum of 7 full-year undergraduate courses in English or the equivalent in half-year courses (i.e., 14), or any combination of full- and half-year courses that add up to the equivalent of 7 full-year courses in English.
- An appropriate bachelor's degree (i.e., a four-year undergraduate degree), or its equivalent (preferably in

Members Emeriti

Adamowski, Thomas - PhD
Asals, Frederick - AB, MA, PhD
Auster, Henry - BA, MA, PhD
Cameron, Elspeth - BA, MA, PhD
Chambers, Douglas - PhD
Cook, Eleanor - PhD
Cuddy-Keane, Melba - BA, MA, PhD
Domville, Eric William - BA, PhD
Duffy, Dennis - AB, MA, PhD
Dutka, JoAnna - BA, MA, PhD, ARCT
Halewood, William - AB, MA, PhD
Hayne, Barrie - BA, AM, PhD
Healey, Antonette - BA, MA, PhD
Henderson, Greig - BA, MA, PhD
Hutcheson, Linda - BA, MA, PhD
Johnston, Alexandra - PhD
Leggatt, Alexander - BA, MA, PhD
Li, Victor - BA, MA, PhD
Millgate, Michael - BA, MA, PhD
Murray, Heather - BA, MA, PhD
Saddlemeyer, Ann - PhD, DLitt
Sindell, Michael - BA, MA, PhD
Townsend, David Robert - BA, MA, PhD
Vicari, E. Patricia - BA, MA, PhD
Visser, Colin - BA, BLitt, PhD
Warkentin, Germaine - PhD
English), with a minimum grade point average (GPA) of B+ or better and evidence of first-class work in English. The department favours a broad training in the major genres and all periods of English literary history.

- Recommendations from two referees.
- A statement of purpose.
- A writing sample consisting of 12 to 15 pages. The writing sample should be an accomplished piece of the applicant's own academic writing, such as an advanced undergraduate seminar paper. See details about the writing sample.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English are required to write the Test of English as a Foreign Language (TOEFL). Minimum scores required are:
  o 600 on the paper-based test and 5 on the Test of Written English (TWE).
  o 100/120 on the Internet-based test, with at least 22/30 on the writing and speaking sections.

Program Requirements

- Coursework. Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  o ENG6999Y Critical Topographies: Theory and Practice of Contemporary Literary Studies in English (1.0 FCE).
  o 3.0 approved graduate FCEs in English.
- Students must attain a minimum B standing in each graduate course.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 9 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Field: Creative Writing

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of English's additional admission requirements stated below.
- A minimum of 7 full-year undergraduate courses in English or the equivalent in half-year courses (i.e., 14), or any combination of full- and half-year courses that add up to the equivalent of 7 full-year courses in English.
- An appropriate bachelor's degree (i.e., a four-year undergraduate degree), or its equivalent (preferably in English), with a minimum grade point average (GPA) of B+ or better and evidence of first-class work in English. The department favours a broad training in the major genres and all periods of English literary history.
- Recommendations from two referees.
- A statement of purpose.

Program Requirements

- Coursework. Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  o ENG6950Y Workshop in Creative Writing (1.0 FCE). All students must complete the Workshop in Creative Writing in Year 1 of their program.
  o 2.0 approved FCEs in English.
- Students must attain a minimum B standing in each graduate course.
- Supervised Writing Project (the equivalent of a thesis). Upon completion of coursework, students undertake a book-length Writing Project in a genre of their choice: poetry, drama, fiction, or creative non-fiction. Each student is assigned a faculty member or adjunct faculty member with whom to consult on a regular basis about the project. All advisors are published writers.
- The MA Creative Writing program cannot be taken on a part-time basis.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

English: English PhD

Doctor of Philosophy

Program Description

The Doctor of Philosophy program offers broad coverage in British, Canadian, Aboriginal, American, and postcolonial literatures, a sophisticated command of current theoretical approaches, and exceptional support for significant research projects.

Applicants are admitted through one of two routes: 1) a master’s degree in English, 2) in exceptional cases, an appropriate bachelor’s degree (direct entry).

Completion of the PhD program may take longer than the indicated program length below.
Fields:
1) American Literature; 2) Aspects of Theory; 3) Canadian Literature; 4) Medieval Literature; 5) Renaissance Literature; 6) Restoration and Eighteenth-Century Literature; 7) Romantic and Victorian Literature; 8) Twentieth and Twenty-First Century British and Irish Literature; 9) World Literatures in English

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of English's additional admission requirements stated below.
- Normally, applicants have a master's degree in English from a recognized university, with an average grade equivalent to at least a University of Toronto A– in the applicant's overall program.
- Applicants must satisfy the department that they are capable of independent research in English at an advanced level.
- Recommendations from two referees.
- A writing sample of not more than 5,000 words (approximately 15 to 20 pages).
- A statement of purpose.
- A curriculum vitae (CV).
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English are required to write the Test of English as a Foreign Language (TOEFL). Minimum scores required are:
  - 600 on the paper-based test and 5 on the Test of Written English (TWE).
  - 100/120 on the Internet-based test, with at least 22/30 on the writing and speaking sections.
- Admission to the PhD is based on the applicant's undergraduate and graduate records and upon the evidence of the references and statement.
- Admissions are selective; possession of minimum qualifications does not guarantee admission.

Program Requirements

- Students pursue a program of study and research approved by the department.

Courses

- The minimum course requirements for the degree, a total of 4.25 full-course equivalents (FCEs), are as follows:
  - ENG9400H Essential Skills Workshop Series (0.25 FCE; Credit/No Credit). This course is required unless ENG8000H or equivalent course has already been taken.
  - ENG9500H Professional Development (0.5 FCE).
  - ENG9900H Professing Literature (0.5 FCE).
  - 3.0 additional FCEs in English, as approved by the department.
- Every student must select at least 2.0 FCEs outside the chosen field of study in the course of their graduate training. The student is encouraged to combine these courses into a minor field. Graduate courses taken as part of the master's program and in fulfillment of the English language requirement may be counted in this connection, but not ENG999Y Critical Topographies: Theory and Practice of Contemporary Literary Studies in English nor courses in the 9000 series.
- Course selection must meet the approval of the department.

English-Language Requirement

- Demonstrated knowledge of the history and development of the English language, especially of its early period.
- Any student who has not completed ENG240Y or an equivalent full-year undergraduate course in Old English with at least a B standing is required to take one of the following courses in the English language:
  - ENG1001H Old English I.
  - ENG6361H History and Structure of the English Language I.
  - ENG6362H History and Structure of the English Language: Post-1500.
  - ENG6365H Diasporic Engishes.
- Alternatively, the requirement can be satisfied by taking a special examination in Old English.

Language Requirement

- Demonstrated reading knowledge of French by May 31 of Year 3 of registration.
- With the permission of the department, another language (other than English) may be substituted for French provided that this other language is required by the student's research area. The completion of this requirement is recorded on the transcript with the course code LRQ7777Y (0.0 FCE) and the subtitle given of the language undertaken to fulfil this requirement.
- The supervisory committee may require the student to qualify in other program-related languages as well.

Special Fields Examination

- Students are required to pass a Special Fields Examination. The examination has three components:
  - A written examination, based on a reading list drawn up in consultation with the supervisory committee.
  - A short position paper, in which the student articulates the argument and stakes of the proposed thesis in light of the preparation for this written examination.
  - An oral examination that engages in part with the written examination and in part with the position paper.
- Students who enter the PhD program with a master's degree generally take the Special Fields Examination no later than the end of the second session of Year 2. A second attempt of the Special Fields Examination is allowed on the recommendation of the student's committee.
- The student must have completed all requirements for the degree, exclusive of thesis research, by the end of Year 3 in order to remain in good standing in the program.
Thesis

- A candidate is required to submit a thesis on an approved subject embodying the results of original investigation which constitute a significant contribution to the knowledge of the field, and to pass an oral examination on the subject of the thesis. The normal length of a PhD thesis is approximately 75,000 words. The maximum length accepted by the department is 100,000 words.
- No later than May 15 of Year 1 of registration, the student must submit to the Associate Director, PhD, a preliminary thesis proposal, approved by the prospective supervisor. The Associate Director, PhD, appoints a supervisory committee that includes a supervisor and two other faculty members with expertise in the proposed research area. The student is required to meet with the supervisory committee within three months of submitting the preliminary proposal. An approved thesis proposal signed by all members of the supervisory committee and by the Associate Director, PhD, must be submitted by October 1 of Year 2 of registration.
- The student and the supervisor should meet regularly. The student is also required to meet at least once a year with the supervisory committee. The supervisory committee should normally approve the completed thesis before it is submitted for examination.
- The Doctoral Final Oral Examination is arranged by the department in collaboration with the School of Graduate Studies. The candidate should allow at least 10 weeks from submission of the thesis for the department to complete the arrangements for the oral examination.

Program Length

4 years

Although the program has been designed for completion in four years, some students may require a longer period to complete all of the requirements.

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of English's additional admission requirements stated below.
- In exceptional cases, applicants with an appropriate bachelor's degree from a recognized university that includes at least 8.0 full-course equivalents (FCEs) in English, with an average grade equivalent to at least a University of Toronto A– in the applicant's overall program may be considered for admission (direct entry).
- Applicants must satisfy the department that they are capable of independent research in English at an advanced level.
- Recommendations from two referees.
- A writing sample of not more than 5,000 words (approximately 15 to 20 pages).
- A statement of purpose.
- A curriculum vitae (CV).
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English are required to write the Test of English as a Foreign Language (TOEFL). Minimum scores required are:
  - 600 on the paper-based test and 5 on the Test of Written English (TWE).
  - 100/120 on the Internet-based test, with at least 22/30 on the writing and speaking sections.
- Admission to the PhD is based on the applicant's undergraduate records and upon the evidence of the references and statement.
- Admissions are selective; possession of minimum qualifications does not guarantee admission.

Program Requirements

- Students pursue a program of study and research approved by the department.

Courses

- The minimum course requirements for the degree, a total of 7.25 full-course equivalents (FCEs), are as follows:
  - ENG6999Y Critical Topographies: Theory and Practice of Contemporary Literary Studies in English (1.0 FCE).
  - ENG9400H Essential Skills Workshop Series (0.25 FCE; Credit/No Credit). This course is required unless ENG8000H or an equivalent course has already been taken.
  - ENG9500H Professing Literature (0.5 FCE).
  - ENG9900H Professional Development (0.5 FCE).
  - 5.0 additional FCEs in English, as approved by the department. The student must complete ENG6999Y plus 2.0 FCEs in Year 1 of the program, with an average grade of at least an A–. Students must complete all remaining courses, except for ENG9500H Professional Development, by the end of Year 3 of the program, with an average of at least an A– in order to maintain good academic standing and to continue in the PhD program. In order to maintain good academic standing, and to continue in the PhD program, the student must complete each course with a grade of at least B.
  - Of these additional English courses, at least 2.0 FCEs are chosen from outside the field of study. The student is encouraged to combine these courses in a minor field.
- Course selection must meet the approval of the department.

English-Language Requirement

- Demonstrated knowledge of the history and development of the English language, especially of its early period.
- Any student who has not completed ENG240Y or an equivalent full-year undergraduate course in Old English with at least a B standing, is required to take one of the following courses in the English language:
  - ENG1001H Old English I.
  - ENG6361H History and Structure of the English Language I.
  - ENG6362H History and Structure of the English Language: Post-1500.
Students are required to pass a Special Fields Examination. The examination has three components:
- A written examination, based on a reading list drawn up in consultation with the supervisory committee.
- A short position paper, in which the student articulates the argument and stakes of the proposed thesis in light of the preparation for this written examination.
- An oral examination that engages in part with the written examination and in part with the position paper.

Direct-entry students generally take the Special Fields Examination no later than the end of the second session of Year 3. A second attempt of the Special Fields Examination is allowed on the recommendation of the student's committee.

The student must have completed all requirements for the degree, exclusive of thesis research, by the end of Year 4 in order to remain in good standing in the program.

Thesis

A candidate is required to submit a thesis on an approved subject embodying the results of original investigation which constitute a significant contribution to the knowledge of the field, and to pass an oral examination on the subject of the thesis. The normal length of a PhD thesis is approximately 75,000 words. The maximum length accepted by the department is 100,000 words.

No later than May 15 of Year 2 of registration, the student must submit to the Associate Director, PhD, a preliminary thesis proposal, approved by the prospective supervisor. The Associate Director, PhD, appoints a supervisory committee that includes a supervisor and two other faculty members with expertise in the proposed research area. The student is required to meet with the supervisory committee within three months of submitting the preliminary proposal. An approved thesis proposal signed by all members of the supervisory committee and by the Associate Director, PhD, must be submitted by October 1 of Year 3 of registration.

The student and the supervisor should meet regularly. The student is also required to meet at least once a year with the supervisory committee. The supervisory committee should normally approve the completed thesis before it is submitted for examination.

The Doctoral Final Oral Examination is arranged by the department in collaboration with the School of Graduate Studies. The candidate should allow at least 10 weeks from submission of the thesis for the department to complete the arrangements for the oral examination.

Program Length

5 years

Although the program has been designed for completion in five years, some students may require a longer period to complete all of the requirements.

Time Limit

7 years

English: English MA, PhD Courses

The following list of possible courses is subject to revision; further information, including course descriptions and timetables, are posted on the Department of English website and may be obtained from the department before enrolment. Courses offered by the department vary considerably from year to year. Students in English are eligible to take courses in other graduate units (for example, Comparative Literature, Medieval Studies, Drama, Information, South Asian Studies, Women's Studies). From time to time, the department also offers programs of directed reading in special fields. These reading courses are normally available only to students in the PhD program. With the special approval of the Director of Graduate Studies, PhD students may substitute one such course for one (and not more than one) of the required courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENG1001H</td>
<td>Old English I</td>
</tr>
<tr>
<td>ENG1002H</td>
<td>Introduction to Old English II: Beowulf</td>
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<td>ENG1006H</td>
<td>York's Plays and Records</td>
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<tr>
<td>ENG1012H</td>
<td>Writing the Self in Late-Medieval England: Hoccleve and Kempe</td>
</tr>
<tr>
<td>ENG1100H</td>
<td>Topics in Canadian Literature</td>
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<tr>
<td>ENG1200H</td>
<td>Topics in African Canadian Literature</td>
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<tr>
<td>ENG1300H</td>
<td>Topics in Asian Canadian Literature</td>
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<tr>
<td>ENG1551H</td>
<td>The Canterbury Tales</td>
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<tr>
<td>ENG1582H</td>
<td>Piers Plowman</td>
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<td>ENG2012H</td>
<td>Life-Writing in Early Modern England</td>
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<td>ENG2017H</td>
<td>Early Modern Asexualities</td>
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<td>ENG2486H</td>
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<td>ENG2499H</td>
<td>Shakespeare's Tragedies</td>
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<td>ENG2506H</td>
<td>Shakespeare's Theatrical (After) Lives</td>
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<td>ENG2509H</td>
<td>Shakespeare and the Book</td>
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<td>ENG3045H</td>
<td>The Comic Novel from Fielding to Austen</td>
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<td>Being There: Liveness and Presence ca. 1750–1830</td>
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<td>Satire and the Great Laughter Debate</td>
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<td>ENG4211H</td>
<td>Romanticism and Translation</td>
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<td>ENG4224H</td>
<td>Early Nineteenth-Century Environmental Literature</td>
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<td>ENG4300H</td>
<td>Topics in African Literature in English</td>
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<td>ENG4400H</td>
<td>Topics in South Asian Literature in English</td>
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<td>ENG4404H</td>
<td>Victorian Memory/Victorian Forgetting</td>
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<td>ENG4405H</td>
<td>Genres of the Victorian Novel</td>
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<td>ENG4501H</td>
<td>Victorian Fiction and the Fragility of the Social</td>
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<td>ENG4622H</td>
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<td>ENG4664H</td>
<td>Romantic Pastoral Revisited</td>
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<td>ENG4750H</td>
<td>Empire of Steam: Romanticism, Technology, and Modernity</td>
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<td>ENG4770H</td>
<td>Aesthetics and Ethics: the Late Victorians</td>
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<td>ENG4973H</td>
<td>Marx and the American Renaissance</td>
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<td>ENG5021H</td>
<td>Black Forms: Critical Race Theory and Diasporic Literature</td>
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<td>Justice and Form in Contemporary Canadian Ecopoetry</td>
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<td>Assembling the Afro-Métis Syllabus</td>
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<td>ENG5712H</td>
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<td>ENG5802H</td>
<td>Global Protest Cultures</td>
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<td>ENG5963H</td>
<td>James Joyce: Modernism, Modernity, Mythology</td>
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<td>ENG6014H</td>
<td>Adapting Short Fiction</td>
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<td>ENG6015H</td>
<td>Experimental Narrative and/as Narrative Theory</td>
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<td>ENG6064H</td>
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<td>ENG6100H</td>
<td>Topics in Genre and Form</td>
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<td>ENG6171H</td>
<td>Writing a Journal Article</td>
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<tr>
<td>ENG6182H</td>
<td>Eating Well</td>
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<tr>
<td>ENG6188H</td>
<td>Land, Myth, and Translation in a Time of Crisis</td>
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<td>ENG6362H</td>
<td>History and Structure of the English Language: Post-1500</td>
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<td>ENG6365H</td>
<td>Diasporic Engishes</td>
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<td>ENG6492H</td>
<td>Speaking of What's Next: Climate and Dystopia in Near Future Fiction</td>
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<td>ENG6494H</td>
<td>Psychogeography and the Mapping of Literary Space</td>
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<td>ENG9400H</td>
<td>Essential Skills Workshop Series (Credit/No Credit; exclusion: ENG8000H)</td>
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<td>Professional Development</td>
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<td>ENG9900H</td>
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<td>JLE5116H</td>
<td>Naming the World: Realism Travels the Globe</td>
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<td>JLE5220H</td>
<td>Tricksters and Confidence Men</td>
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<td>JLE5225H</td>
<td>The Passage from History to Fiction</td>
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</table>
Environment

Environment: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Environment and Sustainability

MES

- Concentrations:
  - Adaptation and Resilience;
  - Global Change Science;
  - Social Sustainability;
  - The Sustainability Transition

Overview

The goal at the School of the Environment is to create and interpret knowledge on environmental issues through outstanding academic programs, and to provide students with the skills, knowledge, and experience necessary to make a substantive difference in the world. We are focused on creating new knowledge, training future leaders, engaging and forging partnerships with the wider community, and contributing to positive environmental and social change from the local to the global scale.

The School of the Environment acts as a hub for researchers and students from many different disciplines spanning the social sciences, natural sciences, and humanities, bringing together many different perspectives to bear on today's pressing environmental challenges. Faculty and instructors make up a diverse community collaborating across departments, schools, and Faculties at the University of Toronto and beyond.

Contact and Address

Web: environment.utoronto.ca/graduate/mes
Email: grad.director.env@utoronto.ca or grad.office.env@utoronto.ca

School of the Environment
University of Toronto
33 Willcocks Street, Suite 1016V
Toronto, Ontario, M5S 3E8
Canada

Environment: Graduate Faculty

Full Members

Abbatt, Jonathan - BSc, PhD
Abizaid, Christian - MA, PhD
Ackerman, Alan - BA, MA, PhD
Ahmed, Ishtiaque - PhD
Akrigg, Ben - BA, PhD

Allen, Grant - BASc, MASc, PhD
Andrews, Robert - BASc, MASc, PhD, PEng
Archontitis, Georgios - BSc, MSc, PhD
Barrett, Spencer - BSc, PhD
Becker, Christoph - BSc, MSc, DSc
Bernstein, Steven - PhD
Boland, Alana - BA, MA, PhD
Bollmann, Jorg - DrRerNat
Brown, Laura - BSc, MSc, PhD
Bunce, Susannah - BA, MES, PhD
Caraway, Brett - BA, MA, PhD
Chan, Arthur - BS, MSc, PhD
Chen, Jing - BSc, PhD
Cole, Donald - MSc, MD
Coleman, Simon - BA, PhD
Connor, Tenley - BS, MS, PhD
Corey, Paul - BSc, MA, PhD
Corts, Kenneth - BA, MA, PhD
Cowling, Sharon - BSc, MSc, PhD
Cunningham, Hilary - BA, MA, PhD
Cyr, Helene - BSc, MSc, PhD
Daniere, Amrita - AB, PhD
Dei, George J.S. - BA, MA, PhD
Desloges, Joseph - BES, MSc, PhD
Dewar, Genevieve - BS, MA, PhD
Diamond, Miriam - BSc, MSc, PhD
Dittrich, Maria - BES, MSc, PhD
Donmez Akyildiz, Birsen - BS, MS, PhD
Drake, Jennifer Anne Pauline - BEng, MASc, PhD, PEng
Easterbrook, Steve - BSc, PhD (Director)
Edwards, Elizabeth - BEng, PhD
Ensminger, Ingo - PhD
Evans, Greg - PhD
Farber, Steven - BA, MA, MA
Farnood, Ramin - BASc, MASc, PhD
Finkelstein, Sarah - AB, MPH, PhD
Franklin, Meredith - BSc, MSc, PhD
Gough, William - BSc, MSc, PhD
Green, Jessica - PhD, PhD
Gross, Mart - BSc, PhD
Harvey, Danny - BSc, MSc, PhD
Hatzopoulou, Marianne - BSc, BSc, MSc, MSc, PhD, PhD, PhD
He, Yuhong - PhD
Hirsh, Jacob - BSc, MA, PhD
Hoffmann, Matthew - BSc, PhD
Howard, Ken - BSc, MSc, PhD
Isaac, Marney Elizabeth - BS, MES, PhD
Jackson, Donald - BSc, MSc, PhD
Jia, Charles - BEng, MEng, PhD
Jones, Dylan - BA, SM, PhD
Kant, Shashi - BE, MA, PhD
Karney, Bryan - BSc, MEng, PhD, PEng
Kepe, Themebela - MS, PhD
Kesik, Ted - BASc, MASc, DPhil
Klenk, Nicole - BS, MSc, PhD
Kotanen, Peter - BSc, MSc, PhD
Kramer, Teresa - MSc, PhD
Korkosek, Marty - BSc, PhD, CRC
Kushner, Paul - BSc, MSc, PhD
Lee, Sherry - BMus, MMus, PhD
Lehnherr, Igor - BSc, PhD
Leos Barajas, Vianey - BSc, PhD
Mabury, Scott - BS, PhD
Maclaren, Virginia - BA, MRP, MSc, PhD
MacLean, Heather L. - BASc, MASc, MBA, PhD, PEng
Mahrt-Smith, Jan - BSc, PhD
Malcolm, Jay - BSc, MSc, PhD
Margolis, Liat - BFA, MLA
McCarney, Patricia - BA, MCP, PhD
Members Emeriti

Fulthorpe, Roberta - BSc, MSc, PhD
Martell, David - BASc, MASc, PhD
Regier, Henry - BA, MS, PhD
Savan, Beth - BSc, PhD
Stefanovic, Ingrid - BA, MA, PhD

Associate Members

Appolloni, Simon - PhD
Bass, Brad - BSc, MSc, PhD
Bowman, Kerry - BA, BSW, MSW, PhD
Classens, Michael - AB, AM, DScA
D'Leon, Jessica - PhD
Green, Andrew - LLB, BA, LLM, MA, PhD, Metcalf Chair in Environmental Law
Ing, Karen - MS
Jeffrey, Melanie - PhD, PhD
Newman, Daniel - DLitt
Ratto, Matt - PhD
Richter, Lauren - BA, MA, PhD
Smith, Karen Louise - BSc, MASc, MASc, PhD
Wagner, Helene - MSc, MSc, PhD

Environment: Environment and Sustainability MES

Master of Environment and Sustainability

Program Description

The Master of Environment and Sustainability (MES) is a full-time, one-year program designed for students seeking the transdisciplinary research skills needed to understand and develop solutions to the many environmental and human well-being challenges and opportunities facing us in the 21st century. The transdisciplinary perspective means research 1) that is problem focussed, rather than discipline-focussed, starting from problems in the world and working back to the knowledge required to address those problems; and 2) involves active engagement with non-academic partners in active processes of co-production of knowledge.

The program builds on the strengths of the School of Environment's undergraduate programs and its two interdisciplinary graduate collaborative specializations in Environment and Health. Upon graduation, MES students will have acquired a transdisciplinary perspective on environmental issues, learned to use methodologies and tools relevant to environmental protection and sustainability solutions, and will be well prepared for a variety of careers in the private and public sectors or for further studies at the doctoral level.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the School of the Environment's additional admission requirements stated below.
- An appropriate honours bachelor's degree (HBSc or HBA) that includes at least a minor in environment, sustainability, or a closely related field from a recognized university with a minimum standing equivalent to at least a University of Toronto B+ in each of the final two years of study.
- Applicants should have completed a combination of major(s) and minor(s) spanning more than one discipline or have equivalent interdisciplinary experience.
- A letter of intent.
- Two letters of reference.
Program Requirements

- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows. Students will undertake research leading to the preparation of a thesis.
  - 1.5 FCEs in core courses:
    - ENV1103H Living Labs for Applied Sustainability
    - ENV1197H Research in Environment and Sustainability, Part 1
    - ENV1198H Research in Environment and Sustainability, Part 2
  - 1.0 FCE thesis: ENV1199Y (Credit/No Credit)
  - 1.5 FCEs in electives chosen from the list below, from one of four concentrations.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Environment: Environment and Sustainability MES Courses

Core Courses

2.5 full-course equivalents (FCEs):

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<td>ENV1103H</td>
<td>Living Labs for Applied Sustainability</td>
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<tr>
<td>ENV1197H</td>
<td>Research in Environment and Sustainability, Part 1</td>
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<tr>
<td>ENV1198H</td>
<td>Research in Environment and Sustainability, Part 2 (prerequisite: ENV1197H)</td>
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<tr>
<td>ENV1199Y</td>
<td>Thesis (Credit/No Credit; prerequisites: ENV1197H and ENV1198H)</td>
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Elective Courses

1.5 FCEs chosen from one of the following concentrations:

Concentration 1: Adaptation and Resilience

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<td>Public Health Sanitation</td>
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<td>CHL5903H</td>
<td>Environmental Health</td>
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<tr>
<td>CHL5910H</td>
<td>Occupational and Environmental Hygiene I</td>
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<td>CHL5911H</td>
<td>Occupational and Environmental Hygiene II</td>
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<td>CSC2720H</td>
<td>Systems Thinking for Global Problems</td>
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Concentration 2: Global Change Science

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<td>ANT4065H</td>
<td>Specific Problems: New World</td>
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<td>CHE1435H</td>
<td>Fundamentals of Aerosol Physics and Chemistry</td>
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<td>CHM1401H</td>
<td>Transport and Fate of Chemical Species in the Environment</td>
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<td>CHM1410H</td>
<td>Analytical Environmental Chemistry</td>
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<td>CHM1420H</td>
<td>Environmental Chemistry of Soil</td>
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<td>CHM1425H</td>
<td>Modelling the Fate of Organic Chemicals in The Environment</td>
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<td>ENV1001H</td>
<td>Environmental Decision Making</td>
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<td>ENV1005H</td>
<td>Ecological Statistics</td>
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<td>ENV1007H</td>
<td>The Warming Papers: The Scientific Foundation of Climate Change</td>
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<td>ENV1112H</td>
<td>Special Topics in Global Change Science</td>
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<td>ESS1461H</td>
<td>Paleoenvironmental Studies</td>
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<td>ESS2303H</td>
<td>Earth Systems Evolution</td>
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<td>FOR300H</td>
<td>Current Issues in Forest Conservation</td>
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<td>PHY1498H</td>
<td>Introduction to Atmospheric Physics</td>
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<td>PHY2502H</td>
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<td>PHY2504H</td>
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<td>PHY2505H</td>
<td>Atmospheric Radiative Transfer and Remote Sounding</td>
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<td>PHY2506H</td>
<td>Data Assimilation and Retrieval Theory</td>
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<td>FOR1610H</td>
<td>Sustainable Forest Management and Certification (exclusion: JFG1610H)</td>
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<td>GGR1407H</td>
<td>Efficient Use of Energy (exclusion: GGR347H1)</td>
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<td>GGR1408H</td>
<td>Carbon-Free Energy (exclusions: GGR1406H, GGR348H1)</td>
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<td>JPG1518H</td>
<td>Sustainability and Urban Communities</td>
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**Concentration 3: Social Sustainability**

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<td>Advanced Research Seminar IV</td>
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<td>ANT6018H</td>
<td>Approaches to Nature and Culture</td>
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<td>ENV1001H</td>
<td>Environmental Decision Making</td>
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<td>ENV1008H</td>
<td>Worldviews and Ecology</td>
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<td>ENV1063H</td>
<td>The Edible Campus (exclusion: ENV463H)</td>
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<td>ENV1113H</td>
<td>Special Topics in Social Sustainability</td>
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<td>ENV1444H</td>
<td>Capitalist Nature</td>
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<td>ENV1701H</td>
<td>Environmental Law</td>
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<td>ENV4001H</td>
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<td>ENV4002H</td>
<td>The Environment and Health of Vulnerable Populations</td>
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<td>JGE1425H</td>
<td>Livelihoods, Poverty, and Environment in the Developing Countries</td>
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<td>JPG1426H</td>
<td>Natural Resources, Difference, and Conflict</td>
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<tr>
<td>JPG1518H</td>
<td>Sustainability and Urban Communities</td>
</tr>
<tr>
<td>LHA1193H</td>
<td>Adult Education for Sustainability</td>
</tr>
<tr>
<td>POL2213H</td>
<td>Global Environmental Politics</td>
</tr>
<tr>
<td>SJE1909H</td>
<td>Environmental Sustainability and Social Justice</td>
</tr>
</tbody>
</table>

**Concentration 4: The Sustainability Transition**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV1307H</td>
<td>Life Cycle Assessment and Sustainability of Engineering Activities</td>
</tr>
<tr>
<td>ENV1001H</td>
<td>Environmental Decision Making</td>
</tr>
<tr>
<td>ENV1002H</td>
<td>Environmental Policy</td>
</tr>
<tr>
<td>ENV1003H</td>
<td>Global Climate Politics and Policy</td>
</tr>
<tr>
<td>ENV1114H</td>
<td>Special Topics in the Sustainability Transition</td>
</tr>
<tr>
<td>ENV1444H</td>
<td>Capitalist Nature</td>
</tr>
<tr>
<td>ENV1707H</td>
<td>Climate Finance</td>
</tr>
<tr>
<td>FOR1270H</td>
<td>Forest Biomaterial Sciences: Fundamentals, Applications, and the Next Frontier</td>
</tr>
<tr>
<td>FOR1288H</td>
<td>Design and Manufacturing of Biomaterials</td>
</tr>
<tr>
<td>FOR1294H</td>
<td>Bioenergy and Biorefinery Technology</td>
</tr>
</tbody>
</table>
European, Russian, and Eurasian Studies

European, Russian, and Eurasian Studies: Introduction

Faculty Affiliation
Arts and Science

Degree Programs

European and Russian Affairs
MA

Combined Degree Programs
STG, Law, JD / European and Russian Affairs, MA

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Ethnic, Immigration and Pluralism Studies
  - European and Russian Affairs, MA
- Jewish Studies
  - European and Russian Affairs, MA

Overview

The Master of Arts program in European and Russian Affairs (MA ERA) is designed to provide a well-rounded education in European, Russian, and Eurasian affairs for students who wish to pursue professional, non-academic careers in areas such as government and diplomacy, journalism, business, and teaching. The programs also enrich and broaden the base of knowledge of beginning graduate students considering any PhD-level study with a specialization in the European and Russian areas.

The Combined Degree Program in Law, Juris Doctor / European and Russian Affairs, Master of Arts provides specialized professional training for those seeking a career in law in the changing environment of the post-communist world and the European Union. There is a need for the services of well-informed specialists who can navigate the legal pitfalls of emergent legal systems and deal with lawyers and government officials in the area. Best equipped to meet this demand are people with dual expertise in law and European and Russian studies.

Contact and Address

Web: munkschool.utoronto.ca/ceres
Email: katia.malyuzhinets@utoronto.ca
Telephone: (416) 946-8962
Fax: (416) 946-8939

Centre for European, Russian, and Eurasian Studies
Munk School of Global Affairs & Public Policy
University of Toronto
Room 127N, 1 Devonshire Place
Toronto, Ontario M5S 3K7
Canada

European, Russian, and Eurasian Studies: Graduate Faculty

Full Members

Austin, Robert - BA, MA, PhD (Graduate Coordinator)
Bergen, Doris - MA, PhD
Braun, Aurel - BA, MA, PhD
Fenner, Angelica - BA, MA, PhD
Goetschel, Willi - PhD
Hansen, Randall - BA, MPH, PhD, CRC
Koznarsky, Taras - MA, PhD
Kramer, Christina - BA, MA, PhD
Lahusen, Thomas - MA, PhD
Levi, Ron - BCL, LLB, LLM, SJD
Magocsi, Paul - BA, MA, MA, PhD, FRSC
Noyes, John - BA, MA, PhD
Ornston, Darius - BA, MA, PhD
Orwin, Donna - PhD
Ostapchuk, Victor - BA, PhD
Pruessen, Ronald - BA, MA, PhD
Retallack, James - BA, DPhil
Smith, Alison - AM, PhD
Soldovieri, Stefan - BA, MA, PhD
Stock, Markus - MA, PhD
Subtelny, Maria - BA, PhD
Tarnawsky, Maxim - BA, PhD
Trojanowska, Tamara - MA, PhD
Viola, Lynne - BA, MA, PhD
Wittmann, Rebecca - AB, MA, PhD
Wrobel, Piotr Jan - MA, PhD
Zilcosky, John - BA, MA, MA, PhD

Members Emeriti

Johnson, Robert - BA, PhD
Perron, Paul - PhD
Solomon, Peter - BA, MA, PhD
Solomon, Susan - BA, MA, PhD

Associate Members

Acorn, Elizabeth - BA, MA, JD, PhD
Arthurs, Joshua William - BA, MA, PhD
Cohen, Paul - AM, PhD
Hartblay, Cassandra Sarah - BA, MA, PhD
Holland, Kate - MA, PhD
Jennings, Eric - BA, MA, PhD
Kahraman, Filiz - BA, MA, PhD
Kalmar, Ivan - BA, MA, PhD
Kasekamp, Andres - PhD
Korteweg, Anna - BA, MA, PhD
Kotsovilis, Spyridon - PhD
Light, Matthew - BA, MA, JD, PhD
Manger, Mark - DrRerPol
McElroy, Brendan - DPhil
Methodieva, Milena - PhD
Nelson IV, William Max - BA, MSS, MA, PhD
European, Russian, and Eurasian Studies:
European and Russian Affairs MA

Master of Arts

Program Description

The Master of Arts program in European and Russian Affairs (MA ERA) is designed to provide a well-rounded education in European, Russian, and Eurasian affairs for students who wish to pursue professional, non-academic careers in areas such as government and diplomacy, journalism, business, and teaching. The programs also enrich and broaden the base of knowledge of graduate students considering any PhD-level study with a specialization in the European and Russian areas.

The MA in European and Russian Affairs offers students:

- the opportunity to study at the leading research university in Canada;
- the chance to work with outstanding faculty in a wide range of disciplines with a research specialization on Europe, Russia, and Eurasia;
- internships, exchanges, summer study programs, and research experience in the region;
- access to one of North America’s largest research libraries;
- participation in the rich academic programs of the Centre for European, Russian, and Eurasian Studies and the Munk School of Global Affairs and Public Policy including specialized graduate workshops and courses offered by visiting professors;
- a strong and vibrant learning community with individualized academic and financial support;
- leadership roles in graduate student conferences, blogs, and journals.

The program requires a minimum of two academic years of full-time graduate study. For further information about graduate programs and study grants, please contact the Graduate Coordinator.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for European, Russian, and Eurasian Studies additional admission requirements stated below.
- At least some of the work in the program is based on the study of original texts and presupposes a reading knowledge of a language relevant to the program. Preferably, applicants should have a minimum of one academic year of study in a relevant language and are urged to undertake additional language training in the summer preceding entry to the program.

Program Requirements

- **Coursework.** Students must complete 6.0 full-course equivalents (FCEs) as follows:
  - 2.0 FCEs in the chosen primary discipline; for example, History or Political Science.
  - 2.0 FCEs must be drawn from any discipline(s) relating to the student's course of study other than the chosen primary discipline. Students can take courses in any department, with the approval of the instructor and Graduate Coordinator, provided that the student submits coursework related to the region.
  - ERE2001H (0.5 FCE), taken in Year 1 of the program.
  - ERE2000Y (1.0 FCE), the interdisciplinary core course, beginning in the second session of Year 1 and continuing into Year 2. As part of ERE2000Y, each student must write 10,000 to 12,000 words including references, based on original research.
  - At least 0.5 FCE must be earned either in an approved program-related internship or in an approved academic exchange abroad.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

European, Russian, and Eurasian Studies: European and Russian Affairs MA Courses

Not all courses are offered every year. Consult the Centre for European, Russian, and Eurasian Studies and individual departments for course availability. Consult the Graduate Coordinator for course credit eligibility.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERE2000Y</td>
<td>Research Seminar</td>
</tr>
<tr>
<td>ERE2001H</td>
<td>Gateway Proseminar in European, Russian, and Eurasian Studies</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERE1151H</td>
<td>European Studies</td>
</tr>
<tr>
<td>ERE1161H</td>
<td>Topics in Russian and Eurasian Studies</td>
</tr>
<tr>
<td>ERE1162H</td>
<td>Topics in the Caucasus</td>
</tr>
<tr>
<td>ERE1165H</td>
<td>International Internship (Credit/No Credit)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>ERE1170H</td>
<td>Conflicts and Para-States in the European Union's Backyard</td>
</tr>
<tr>
<td>ERE1175H</td>
<td>One Hundred Years of Cultures of Refugees in Europe, 1920–2020</td>
</tr>
<tr>
<td>ERE1179H</td>
<td>Illiberalism in East-Central Europe</td>
</tr>
<tr>
<td>ERE1186H</td>
<td>The Past As Prologue: East Central and Southeastern Europe in the Interwar Period</td>
</tr>
<tr>
<td>ERE1195H</td>
<td>Topics in Ukraine and Eastern Europe</td>
</tr>
<tr>
<td>ERE1197H</td>
<td>Reading Course</td>
</tr>
<tr>
<td>ERE1994H</td>
<td>The Search for Security in Europe Since 1945</td>
</tr>
</tbody>
</table>

### Anthropology

For a full listing of courses, see the Anthropology entry in this calendar.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSA5147H</td>
<td>Language, Nationalism, and Post-Nationalism</td>
</tr>
</tbody>
</table>

### Comparative Literature

For a full listing of courses, see the Comparative Literature entry in this calendar.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COL5047H</td>
<td>The Two Avant-Gardes</td>
</tr>
<tr>
<td>JGC1855H</td>
<td>Critical Theory in Context: The German-French Connection</td>
</tr>
<tr>
<td>JHL1282H</td>
<td>Comparative Totalitarian Culture</td>
</tr>
<tr>
<td>JLV5134H</td>
<td>Theories of the Novel</td>
</tr>
</tbody>
</table>

### Criminology and Sociolegal Studies

For a full listing of courses, see the Criminology and Sociolegal Studies entry in this calendar.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRI3130H</td>
<td>Policing</td>
</tr>
<tr>
<td>CRI3220H</td>
<td>Organized Crime and Corruption</td>
</tr>
</tbody>
</table>

### Germanic Languages and Literatures

For a full listing of courses, see the Germanic Languages and Literatures entry in this calendar.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER1722H</td>
<td>Kafka</td>
</tr>
</tbody>
</table>

### History

For a full listing of courses, see the History entry in this calendar.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HIS1032H</td>
<td>Modernity and Its Visual Cultures</td>
</tr>
<tr>
<td>HIS1200H</td>
<td>Readings in European Intellectual History</td>
</tr>
<tr>
<td>HIS1237H</td>
<td>France: 1870–1968</td>
</tr>
<tr>
<td>HIS1268H</td>
<td>The Holocaust and World War II</td>
</tr>
<tr>
<td>HIS1272H</td>
<td>Topics in Twentieth-Century European History</td>
</tr>
<tr>
<td>HIS1275H</td>
<td>Imperial Germany, 1871–1918</td>
</tr>
<tr>
<td>HIS1281H</td>
<td>History of Real Socialism</td>
</tr>
<tr>
<td>HIS1287H</td>
<td>Polish Jews Since the Partitions of Poland (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS1290H</td>
<td>Topics in Imperial Russian History</td>
</tr>
<tr>
<td>HIS1293Y</td>
<td>Kievan Rus’ (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS1296H</td>
<td>Stalinism and After: Beyond Cold War History</td>
</tr>
<tr>
<td>HIS1805H</td>
<td>Human Rights and Empire (exclusion: HIS1860H)</td>
</tr>
<tr>
<td>JHL1282H</td>
<td>Comparative Totalitarian Culture</td>
</tr>
<tr>
<td>JHP1289Y</td>
<td>Twentieth-Century Ukraine (joint graduate/undergraduate)</td>
</tr>
</tbody>
</table>

### Political Science

For a full listing of courses, see the Political Science entry in this calendar.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRA2321H</td>
<td>Topics in Comparative Politics</td>
</tr>
<tr>
<td>JRA2337H</td>
<td>Government Law and Politics in Russia</td>
</tr>
<tr>
<td>POL2207H</td>
<td>Topics in International Politics III</td>
</tr>
<tr>
<td>POL2226H</td>
<td>Ethics and International Relations</td>
</tr>
<tr>
<td>POL2321H</td>
<td>Topics in Comparative Politics I</td>
</tr>
<tr>
<td>POL2326H</td>
<td>Democracy and Dictatorship</td>
</tr>
<tr>
<td>POL2335H</td>
<td>Business and Politics: Power in a Global World</td>
</tr>
</tbody>
</table>
## Slavic Languages and Literatures

For a full listing of courses, see the Slavic Languages and Literatures entry in this calendar.

### Croatian and Serbian Literatures

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLA1517H</td>
<td>Modern Serbian Bards</td>
</tr>
<tr>
<td>SLA1547H</td>
<td>South Slavic Folklore</td>
</tr>
</tbody>
</table>

### Polish Literature

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLA1304H</td>
<td>Transgressions: Drama, Theatre, Performance</td>
</tr>
<tr>
<td>SLA1308H</td>
<td>Critical Paradigms in Polish Culture</td>
</tr>
<tr>
<td>SLA1312Y</td>
<td>Modernism and Postmodernism in Polish Literature</td>
</tr>
</tbody>
</table>

### Russian Literature

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLA1202H</td>
<td>Gulag Literature</td>
</tr>
<tr>
<td>SLA1203H</td>
<td>The Self and Other in Russian Prose</td>
</tr>
<tr>
<td>SLA1204H</td>
<td>Contemporary Russian Literature</td>
</tr>
<tr>
<td>SLA1207H</td>
<td>The Imaginary Jew</td>
</tr>
<tr>
<td>SLA1211Y</td>
<td>Studies in the Russian Drama: Eighteenth to Twentieth Century</td>
</tr>
<tr>
<td>SLA1215H</td>
<td>Studies in Russian Literature and Criticism in the Eighteenth Century</td>
</tr>
<tr>
<td>SLA1216H</td>
<td>From English to Russian Literature and Back</td>
</tr>
<tr>
<td>SLA1220H</td>
<td>Nineteenth Century Russian Thinkers</td>
</tr>
<tr>
<td>SLA1225H</td>
<td>Russian Literature in the Age of Empire</td>
</tr>
<tr>
<td>SLA1226H</td>
<td>Dostoevsky in Literary Theory and Criticism</td>
</tr>
<tr>
<td>SLA1228H</td>
<td>Themes in Russian Realism</td>
</tr>
<tr>
<td>SLA1231H</td>
<td>Russian Modernism</td>
</tr>
<tr>
<td>SLA1238H</td>
<td>Chekhov</td>
</tr>
<tr>
<td>SLA1239H</td>
<td>Vladimir Nabokov</td>
</tr>
<tr>
<td>SLA1240H</td>
<td>Tolstoy</td>
</tr>
<tr>
<td>SLA1410H</td>
<td>Gogol</td>
</tr>
<tr>
<td>SLA1411H</td>
<td>Synthesis of Arts in the Late Russian Empire-Early Soviet Union</td>
</tr>
</tbody>
</table>

### Ukrainian Literature

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLA1404Y</td>
<td>Studies in Ukrainian Poets</td>
</tr>
<tr>
<td>SLA1406Y</td>
<td>Studies in Ukrainian Literary Criticism</td>
</tr>
<tr>
<td>SLA1407H</td>
<td>Aspects of Literary Translation of Ukrainian</td>
</tr>
</tbody>
</table>

### General Slavic

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLA1010H</td>
<td>Slavic Proseminar</td>
</tr>
<tr>
<td>SLA1039H</td>
<td>Kyiv-Kiev-Kijow: A City and the Text</td>
</tr>
<tr>
<td>SLA1421H</td>
<td>Women in East European Fiction</td>
</tr>
<tr>
<td>SLA1521H</td>
<td>Post-Modernity and the Mythopoetic Legacy of Mitteleuropa</td>
</tr>
</tbody>
</table>

### Reading and Research Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERE1997H</td>
<td>Reading and Research</td>
</tr>
<tr>
<td>ERE1998H</td>
<td>Reading and Research I</td>
</tr>
<tr>
<td>ERE1999H</td>
<td>Reading and Research II</td>
</tr>
</tbody>
</table>
The Master of Financial Economics (MFE) program is a non-thesis degree program offered jointly by the Department of Economics and the Rotman School of Management. The 18-month MFE program provides students with a broad understanding of financial theory as well as the economic framework upon which that theory is based, both in the classroom and through practical real-world experience. Students are expected to complete a mandatory winter or summer internship to enhance their development in the program and prepare themselves for an eventual career in industry. Graduates of the program receive a professional degree called the Master of Financial Economics.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the program's additional admission requirements stated below.
- An appropriate bachelor's degree with at least a mid-B (75%) standing in the final year of the program.
- Successful completion of courses in calculus, intermediate microeconomics, intermediate macroeconomics, and statistics.
- Applicants who do not hold a degree from a Canadian university must submit an official Graduate Record Examination (GRE) General Test score or a Graduate Management Admission Test (GMAT) score. See the program's website for details.
- Evidence of strong communication skills, both oral and written.
- Relevant work experience and/or previous training in finance is useful but not required.
- Admission is competitive, so accepted applicants will normally have achieved a standing considerably higher than the minimum requirements.

Program Requirements

Students must successfully complete a total of 7.5 full-course equivalents (FCEs) as follows:

- **6.5 FCEs in coursework:**
  - 0.5 FCE in ECO1010H Mathematics and Statistics for MA and MFE Students (Credit/No Credit).
  - 2.0 FCEs from the Department of Economics. These core courses are the same as those required for the MA degree in Economics plus ECO1500H Financial Economics: Asset Pricing.
  - 1.5 FCEs from the Rotman School of Management: RSM2306H Options and Futures Markets, RSM2300H Corporate Financing, and RSM2302H Security Analysis and Portfolio Management.
  - 2.5 FCEs in electives from either the Department of Economics or the Rotman School, subject to the condition that at least 1.5 out of the 2.5 elective FCEs must be taken from the Department of Economics.

- **1.0 FCE:** a one-session internship (FEC1000Y; Credit/No Credit).

Program Length

5 sessions full-time (typical registration sequence: S/F/W/S/F)

Time Limit

3 years full-time

\[\text{Course that may continue over a program. Credit is given when the course is completed.}\]
Forestry: Graduate Faculty

Full Members

Carleton, Terence - BSc, MSc, PhD
Caspersen, John - BA, PhD (Research Programs Coordinator)
Du, Juan - BDesign, MArch, PhD (Dean)
James, Patrick - PhD
Kant, Shashi - BE, MA, PhD
Krigstin, Sally - MSc, PhD
Sain, Mohini - PhD
Smith, C. Tattersall - BA, MS, PhD
Smith, Sandy - BAgSc, MSc, PhD
Thomas, Sean - BA, PhD (Associate Dean, Research)
Wotton, Mike - BSc, PhD
Yan, Ning - BSc, PhD, PEng
Yousefpour, Rasoul - BSc, MSc, PhD

Members Emeriti

Aird, Paul - BSc, MS, PhD
Blake, Terence - DipFor, BScF, STB, MF, PhD
Bryan, Rorke - BA, PhD
Hubbes, Martin - PhD
Kenney, Andrew - BSc, MSc, PhD
Malcolm, Jay - BSc, MSc, PhD
Martell, David - BASc, MASc, PhD
Nautiyal, Jagdish - BSc, MF, PhD
Timmer, Victor - BScF, MScF, PhD

Associate Members

Allison, Jeremy D. - PhD
Bardekjian, Adrina Caroline - BA, MFC, PhD
Bourchier, Robert - BA, MSc, PhD
Couto, Laercio - PhD
Davy, Christina - BSc, MSc, PhD
Duchesne, Isabelle - BSc, PhD
Faruk, Abu Omar - PhD
Flannigan, Mike - BSc, MS, PhD
Gaudon, Justin Michael - BES, PhD
Johnston, Joshua M. - BA, PhD
Jones, Trevor A - BSc, MSc, PhD
Koven, Anne - PhD
Kuttnner, Benjamin - PhD, PhD
Laaksonen-Craig, Susanna - MSc, PhD
MacQuarrie, Chris J.K. - BSc, MSc, PhD
Mayor, Stephen - BSc, MSc, PhD
McKenny, Daniel - BSc, MSc, PhD
Moola, Faisal - BSc, MSc, PhD
Nanang, David - BSc, MScF, PhD
Nelson, Elizabeth - PhD
Ngan, Amory - AB, MFC
Nel, Erica - BS, MSc, PhD
Pinto, Fred - BScF, MScF
Puric-Mladenovic, Danijela - PhD
Ray, Justina - BS, MS, PhD
Sastry, Cherla - BSc, MSc, PhD
Smith, Peggy - BSc, PhD
Stocks, Brian - BScF, MScF
Thiffault, Nelson - BS, PhD
Timms, Laura - BSc, MScF, PhD
Tjong, Jimi - BASc, MASc, PhD
Vanderwel, Mark C. - BSc, MScF, PhD
Wang, Sen - BA, MSc, PhD
Wang, Xianli - BSc, MSc, PhD
Forestry: Forest Conservation MFC

Master of Forest Conservation

Program Description

The professionally oriented Master of Forest Conservation (MFC) is an intensive 16-month course-based program with a strong focus on field and laboratory practical training, Canadian and international field courses, practical internships, and individual and group research. It provides a strong, coherent professional education in forest conservation to students from diverse educational backgrounds. The MFC is accredited by the Canadian Forestry Accreditation Board. Graduates are eligible to begin the process of licensure to become a Professional Forester.

The MFC program can be taken on a full-time, extended full-time, or part-time basis.

Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Forestry's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with an average in each of the final two years of at least mid-B. The MFC program is intended for students with a strong undergraduate background in ecology, environmental sciences, forestry, natural sciences, biology, physical geography, geology, agricultural science, or relevant social sciences. Students from other disciplines will be considered by the department.
- Additional documentation must be submitted to the department with the completed application form, including transcripts, three references, a letter of interest in the MFC program, and a resumé. See the full instructions and forms.

Program Requirements

- The program starts in September and requires full-time intensive involvement throughout.
- Successful completion of 7.5 full-course equivalents (FCEs) as follows:
  - 6.0 required FCEs in FOR courses.
  - 1.5 elective FCEs.
    - Elective course selection will include the successful completion of one field course (0.5 FCE) from either FOR3011H, FOR1585H, or, in unusual circumstances, another related field course appropriate to the program and approved by the program director.
- Expected chronology:
  - Year 1: Fall
  - Year 1: Spring
  - Year 1: Summer
  - Year 2: Fall
- Students may take the remaining 1.0 elective FCE in any session of their program for a total program requirement of 7.5 FCEs.

Program Length

4 sessions (typical registration sequence: F/W/S/F)

Time Limit

3 years

Extended Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Forestry's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with an average in each of the final two years of at least mid-B. The MFC program is intended for students with a strong undergraduate background in ecology, environmental sciences, forestry, natural sciences, biology, physical geography, geology, agricultural science, or relevant social sciences. Students from other disciplines will be considered by the department.
- Additional documentation must be submitted to the department with the completed application form, including transcripts, three references, a letter of interest in the MFC program, and a resumé. See the full instructions and forms.

Program Requirements

- Full-time students can elect an extended full-time (EFT) option. Under this option, students are allowed an extra year to complete their studies while paying the same academic fees as regular full-time students.
Students would, however, pay full-time incidental fees for each year of registration. EFT option students must complete FOR3000H, FOR3001H, and FOR3012H in their first session. The remaining MFC course requirements can be completed in any order except that FOR3007H must be taken in the final Summer session and FOR3008H must be taken in the final Fall session.

- Successful completion of **7.5 full-course equivalents (FCEs)** as follows:
  - 6.0 required FCEs in FOR courses
    - FOR3000H Current Issues in Forest Conservation
    - FOR3001H Biodiversity of Forest Organisms
    - FOR3002H Applied Forest Ecology and Silviculture
    - FOR3003H Economics of Forest Ecosystems
    - FOR3004H Forest Management Decision Support Systems
    - FOR3005H Stresses in the Forest Environment
    - FOR3006H Case Study Analysis in Forest Management
    - FOR3007H+ Internship in Forest Conservation (Credit/No Credit)
    - FOR3008H Capstone Project in Forest Conservation
    - FOR3009H Forest Conservation Biology
    - FOR3010H Society and Forest Conservation
    - FOR3012H Analytical Methods in Forestry
  - 1.5 elective FCEs:
    - Elective course selection will include the successful completion of one field course (0.5 FCE) from either FOR3011H International Forest Conservation Field Camp (Credit/No Credit) or FOR1585H Urban Forest Conservation Field Camp (Credit/No Credit) or, in unusual circumstances, another related field course appropriate to the program and approved by the graduate coordinator.
    - Students may take the remaining 1.0 elective FCE in any session of their program.

### Program Requirements

- Part-time students must register for FOR3001H Biodiversity of Forest Organisms and FOR3012H Analytical Methods in Forestry in the Fall session of Year 1. They must complete a minimum of 3.0 full-course equivalents (FCEs) of core courses prior to registering for FOR3011H International Forest Conservation Field Camp (Credit/No Credit). The remaining MFC course requirements can be completed in any order except that FOR3007H must be taken in the final Summer session and FOR3008H must be taken in the final Fall session.

- Successful completion of **7.5 full-course equivalents (FCEs)** as follows:
  - 6.0 FCEs in FOR courses:
    - FOR3000H Current Issues in Forest Conservation
    - FOR3001H Biodiversity of Forest Organisms
    - FOR3002H Applied Forest Ecology and Silviculture
    - FOR3003H Economics of Forest Ecosystems
    - FOR3004H Forest Management Decision Support Systems
    - FOR3005H Stresses in the Forest Environment
    - FOR3006H Case Study Analysis in Forest Management
    - FOR3007H+ Internship in Forest Conservation (Credit/No Credit)
    - FOR3008H Capstone Project in Forest Conservation
    - FOR3009H Forest Conservation Biology
    - FOR3010H Society and Forest Conservation
    - FOR3012H Analytical Methods in Forestry
  - 1.5 elective FCEs:
    - Elective course selection will include the successful completion of one field course (0.5 FCE) from either FOR3011H International Forest Conservation Field Camp (Credit/No Credit) or FOR1585H Urban Forest Conservation Field Camp (Credit/No Credit) or, in unusual circumstances, another related field course appropriate to the program and approved by the graduate coordinator.
    - Students may take the remaining 1.0 elective FCE in any session of their program.

### Program Length

- **7 sessions (typical registration sequence: F/W/S/F/W/S/F);**

### Time Limit

- **3 years**

### Part-Time Option

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Forestry’s additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with an average in each of the final two years of at least mid-B. The MFC program is intended for students with a strong undergraduate background in ecology, environmental sciences, forestry, natural sciences, biology, physical geography, geology, agricultural science, or relevant social sciences. Students from other disciplines will be considered by the department.

### Program Length

- **12 sessions**

### Time Limit

- **6 years**
Forestry: Forestry MScF

Master of Science in Forestry

Program Description

The Master of Science in Forestry (MScF) is a research- and thesis-based program in areas relevant to faculty expertise and funding. These include forest conservation biology and wildlife ecology, forest biosphere science, invasive species and threats to forest health, environmental sustainability of managed forests, fire and ecosystem management, forest conservation planning, sustainable development and economics, political ecology and governance of forests, social and cultural ecology of forest ecosystems, urban forestry, and forest biomaterials science and engineering.

The department considers applicants from a variety of undergraduate backgrounds including forestry; applied science and engineering; and social, physical, and biological sciences.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Forestry’s additional admission requirements stated below.

• An appropriate bachelor's degree from a recognized university, with a final-year average of at least mid-B. A minimum of B+ is required for the collaborative specialization.

• Additional documentation must be submitted to the department with a completed application form, including transcripts, three references, a letter of intent, a resumé, and a writing sample. See the full instructions and forms.

Program Requirements

• Minimal requirements for this degree are:
  o 1.0 full-course equivalent (FCE) as follows:
    ▪ FOR1001H Graduate Seminar (0.5 FCE) plus
    ▪ 0.5 FCE elective.
    ▪ Depending on the student’s background, additional or alternative coursework may be required.
  o The preparation of a research thesis of acceptable quality and its oral defence.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Forestry: Forestry PhD

Doctor of Philosophy

Program Description

The PhD is a research- and thesis-based program in areas relevant to faculty expertise and funding. These include forest conservation biology and wildlife ecology, forest biosphere science, invasive species and threats to forest health, environmental sustainability of managed forests, fire and ecosystem management, forest conservation planning, sustainable development and economics, political ecology and governance of forests, social and cultural ecology of forest ecosystems, urban forestry, and forest biomaterials science and engineering.

The department considers applicants from a variety of backgrounds including forestry; applied science and engineering; and social, physical, and biological sciences.

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate master’s degree; 2) transfer from the University of Toronto MScF program; or 3) direct entry following completion of an appropriate bachelor’s degree.

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Forestry’s additional admission requirements stated below.

• Applicants may be admitted to the four-year PhD program via completion of an appropriate master's degree from a recognized university with at least an A- standing, in a discipline appropriate to the intended field of doctoral study and research.

• Applicants must submit additional documentation to the department with completed application form, including transcripts, three references, a letter of intent, a resumé, and a writing sample. See the full instructions and forms.

Program Requirements

• Successful completion of 2.0 full-course equivalents (FCEs) as follows:
  o A minimum of three elective half courses (1.5 FCEs) must be taken. Depending on the student's background and academic goals, additional or alternative coursework may be required by the student's supervisory committee, including courses outside the Graduate Department of Forestry.
  o FOR1001H Graduate Seminar (0.5 FCE).
• Successful completion of a qualifying appraisal examination. The examination will be oral and will ordinarily be taken prior to the completion of 24 months in the program. There are three possible outcomes: pass, decision deferred pending supplementary undertakings, or unsatisfactory. If there is more than one negative vote, the outcome will be judged unsatisfactory. Students are permitted one further attempt.

Preparation and defence of a thesis that is an original and independent research work adding significantly to the existing body of knowledge.

Program Length

4 years

Time Limit

6 years

PhD Program (Transfer)

Transfer Requirements

• Under certain specific conditions, outstanding registered MScF students may be considered by the end of Year 1 in the MScF program for transfer to the PhD program.

Program Requirements

• Successful completion of 2.0 full-course equivalents (FCEs) as follows:
  o A minimum of three elective half courses (1.5 FCEs) must be taken. To meet this requirement, students can use courses completed towards meeting MScF program requirements. Depending on the student's background and academic goals, additional or alternative coursework may be required by the student's supervisory committee, including courses outside the Graduate Department of Forestry.
  o FOR1001H Graduate Seminar (0.5 FCE). Students require credit for FOR1001H only once.

• Successful completion of a qualifying appraisal examination. The examination will be oral and will ordinarily be taken prior to the completion of 24 months in the program. There are three possible outcomes: pass, decision deferred pending supplementary undertakings, or unsatisfactory. If there is more than one negative vote, the outcome will be judged unsatisfactory. Students are permitted one further attempt.

• Preparation and defence of a thesis that is an original and independent research work adding significantly to the existing body of knowledge.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Forestry's additional admission requirements stated below.

• In exceptional circumstances, an extraordinarily strong applicant with an appropriate bachelor's degree from a recognized university may be admitted to the PhD program via direct entry.

• Applicants must submit additional documentation to the department with completed application form, including transcripts, three references, a letter of intent, a résumé, and a writing sample. See the full instructions and forms.

Program Requirements

• Successful completion of 2.0 full-course equivalents (FCEs) as follows:
  o A minimum of three elective half courses (1.5 FCEs) must be taken. Depending on the student's background and academic goals, additional or alternative coursework may be required by the student's supervisory committee, including courses outside the Graduate Department of Forestry.
  o FOR1001H Graduate Seminar (0.5 FCE).

• Successful completion of a qualifying appraisal examination. The examination will be oral and will ordinarily be taken prior to the completion of 24 months in the program. There are three possible outcomes: pass, decision deferred pending supplementary undertakings, or unsatisfactory. If there is more than one negative vote, the outcome will be judged unsatisfactory. Students are permitted one further attempt.

• Preparation and defence of a thesis that is an original and independent research work adding significantly to the existing body of knowledge.

Program Length

5 years

Time Limit

7 years

Forestry: Forestry MFC, MScF, PhD Courses

The Graduate Department of Forestry offers the following courses. Students should consult the departmental website each session to confirm availability. A maximum of one directed studies course taken with a student's supervisor can be credited towards meeting departmental degree program requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>FOR1001H</td>
<td>Graduate Seminar (Credit/No Credit)</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>FOR1270H</td>
<td>Forest Biomaterial Sciences: Fundamentals, Applications, and the Next Frontier</td>
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<td>FOR1288H</td>
<td>Design and Manufacturing of Biomaterials</td>
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<td>FOR1412H</td>
<td>Natural Resource Management I (Directed Studies Course)</td>
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<td>FOR1416H</td>
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<td>FOR1575H</td>
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<td>FOR1585H</td>
<td>Urban Forest Conservation Field Camp (Credit/No Credit; exclusion: FOR418H)</td>
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<td>FOR1610H</td>
<td>Sustainable Forest Management and Certification (exclusion: JFG1610H)</td>
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<td>FOR1900H</td>
<td>Advanced Topics in Forestry I (Directed Studies Course)</td>
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<td>FOR1901H</td>
<td>Advanced Topics in Forestry II (Directed Studies Course)</td>
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<tr>
<td>FOR3000H</td>
<td>Current Issues in Forest Conservation</td>
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<td>FOR3011H</td>
<td>International Forest Conservation Field Camp (Credit/No Credit)</td>
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<tr>
<td>FOR3012H</td>
<td>Analytical Methods in Forestry</td>
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<tr>
<td>FOR3013H</td>
<td>Urban and Community Forestry: Leadership and Professional Practice</td>
</tr>
<tr>
<td>FOR3014H</td>
<td>Working with Wood</td>
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</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Introduction
Faculty Affiliation
Arts and Science

Degree Programs

French Language and Literature

MA and PhD
- Fields:
  - French Linguistics;
  - French Literature

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Book History and Print Culture
  - French Language and Literature, MA, PhD
- Sexual Diversity Studies
  - French Language and Literature, MA, PhD
- Women and Gender Studies
  - French Language and Literature, MA, PhD

Overview

The Department of French has a rich history dating back to 1853. Since 1925, when the first PhD was granted, the department has remained one of the most reputed departments of its kind in Canada. Many PhD graduates are professors of French in Canadian and foreign universities. Since 1980, the department has graduated more than 200 PhDs.

Graduate students benefit from a number of exceptional resources, including the outstanding collections at the Robarts Library (containing more than 500,000 volumes in French) and the Thomas Fisher Rare Book Library. The department participates in several collaborative specializations and has strong connections with other academic units.

Home to several research groups and projects, the department offers students vital and stimulating collaborative opportunities for research. The department also publishes its own peer-reviewed journal, *Arborescences*, with graduate student support. Graduate students are welcome to participate in many faculty-led research groups.

The department hosts lectures presented by renowned scholars, giving students a chance to network with specialists in their field. Contemporary writers from France and Québec are frequently invited to read from their works.

Department professors with literary studies expertise specialize in every period of French literature, Québec and francophone literature, and all the major types of literary theory and methodology. In linguistics, particular strengths include first and second language acquisition, languages in contact including creole studies, and formal linguistics. Several linguistics professors have strong links and collaborative research projects with Romance and Hispanic linguists and the Department of Linguistics at U of T.

Graduate students organize workshops, a forum for sharing their work in progress, as well as an annual graduate conference. Linguistics students enjoy access to a top-notch Linguistics Laboratory that is equipped with technology for data analysis and conducting psycholinguistic experiments, a space for meeting and testing subjects, and a French Linguistics library.

The MA program provides advanced academic development in either literature or linguistics, as well as outstanding training in research and communication skills in French, preparing students for doctoral studies and careers in such fields as teaching, government administration, and communications. PhD students receive rigorous research training in either literature or linguistics, culminating in original research for their doctoral thesis. While primarily training students for academic careers at the university or community college levels, the PhD in French can also lead to employment opportunities in editorial work and professions outside academia.

Contact and Address

Web: [www.french.utoronto.ca](http://www.french.utoronto.ca)
E-mail: french.gradcounsellor@utoronto.ca
Telephone: (416) 926-2307
Fax: (416) 926-2328

Department of French Language and Literature
University of Toronto
50 St. Joseph Street
Toronto, Ontario M5S 1J4
Canada

French Language and Literature: Graduate Faculty

Full Members

Brousseau, Anne-Marie - PhD *(Chair and Graduate Chair)*
Cahill, James - AB, MA, MA, PhD
Drouin, Sébastien - BA, MA, PhD
Elkabas, Charles - BA, MA, PhD
Havercroft, Barbara - BA, MA, PhD
Kullmann, Dorothea - PhD
LeBlanc, Julie - BA, PhD
Michelucci, Pascal - BA, MA, PhD
Motsch, Andreas - PhD
Ndayiragije, Juvenal - PhD
Nikiema, Emmanuel - PhD
Paterson, Janet - BA, MA, PhD
Pirvulescu, Mihaela - MA, PhD
Rienteau, Pascal - BA, MA, PhD *(Coordinator, Graduate Admissions and Funding)*
Steele, Jeffrey - BA, MA, PhD
Tcheuyap, Alexie - BA, MA, PhD
Theriault, Patrick - BA, MA, PhD *(Associate Chair, Graduate)*

Members Emeriti

Bertrand-Jennings, Chantal - LèS L, PhD
Field: French Linguistics

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of French Language and Literature's additional admission requirements stated below.
- B+ average standing or better, with at least B+ in French. A B+ average does not automatically lead to admission.
- Competence in French.
- Concentration in French linguistics, with a minimum of seven full courses, or equivalent, in French. A minimum of three of the seven full courses, or equivalent, should be in the proposed area of study (i.e., linguistics).
- Admission is based upon the evidence of the supporting letters and the applicant's academic record.

Program Requirements

- Prerequisite work, if necessary.
- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  - FRE1103H Séminaire de linguistique I : Phonétique et phonologie (0.5 FCE);
  - FRE1104H Séminaire de linguistique II : Syntaxe (0.5 FCE);
  - FRE1141H Séminaire de linguistique III : Linguistique expérimentale et linguistique de corpus (0.5 FCE);
  - 2.5 FCEs from the regular graduate offerings; or
  - 2.0 FCEs and FRE5001H Research Essay (0.5 FCE), a mémoire of approximately 35 pages; or
  - 1.5 FCEs and FRE5000Y Research Essay (1.0 FCE), a 65- to 75-page mémoire.
- Students must maintain a B average in order to be recommended for the degree and must obtain a minimum of mid-B in the Research Essay if taken. Students must also obtain a minimum of mid-B for the graduate seminars in linguistics (FRE1103H, FRE1104H, and FRE1141H).
- Up to 1.0 FCE may be taken outside the department, with the permission of the Associate Chair, Graduate.
- Normally, part-time students take the graduate seminars in linguistics during Year 1.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time
French Language and Literature: French Language and Literature MA; Field: French Literature

Master of Arts

Program Description

The Master of Arts program is both a self-contained program and the first stage towards doctoral studies. It has two objectives:

- to allow students to develop a thorough knowledge of the discipline through a program of coursework in French literary studies and
- to develop an aptitude for research.

It is a 12-month program for full-time students; the program is available on a part-time basis.

At the beginning of their course of study, students meet individually with the Associate Chair, Graduate in order to determine course selection with the objective of ensuring that the student has a well-rounded program and broad knowledge of the discipline.

Field: French Literature

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of French Language and Literature's additional admission requirements stated below.
- B+ average standing or better, with at least B+ in French. A B+ average does not automatically lead to admission.
- Competence in French.
- Concentration in French literature, with a minimum of seven full courses, or equivalent, in French. A minimum of five of the seven full courses, or equivalent, should be in the proposed area of study (i.e., literature). Applicants may request that up to 2.0 full-course equivalents (FCEs) of the 5.0 FCEs in the discipline come from cognate disciplines upon the department's approval.
- Admission is based upon the evidence of the supporting letters and the applicant's academic record.

Program Requirements

- Prerequisite work, if necessary.
- Coursework. Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  - FRE1202H Séminaire de littérature 1 : théorie (0.5 FCE)
  - FRE1203H Séminaire de littérature 2 : période (0.5 FCE)
  - FRE1204H Séminaire de littérature 3 : genre (0.5 FCE)
- 2.5 FCEs from the regular graduate course offerings; or
- 2.0 FCEs and FRE5001H Research Essay (0.5 FCE), a mémoire of approximately 35 pages; or
- 1.5 FCEs and FRE5000Y Research Essay (1.0 FCE), a 65- to 75-page mémoire.
- Students must maintain a B average in order to be recommended for the degree and must obtain a minimum of mid-B in the Research Essay if taken. Students must also obtain a minimum of mid-B for the graduate seminars in literature (FRE1202H, FRE1203H, and FRE1204H).
- Up to 1.0 FCE may be taken outside the department, with the permission of the Associate Chair, Graduate.
- Normally, part-time students take the graduate seminars in literature during Year 1.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

French Language and Literature: French Language and Literature PhD; Field: French Linguistics

Doctor of Philosophy

Program Description

The Doctor of Philosophy is necessary preparation for a career in higher education in Canada and abroad which will include teaching and research at an advanced academic level. The PhD includes a combination of advanced seminars, field examinations, a high amount of embedded professional experience in teaching and research, and the presentation of the results of a significant contribution to the discipline in the form of an original dissertation.

The PhD program engages students in a program of study and research in the field of French Linguistics approved by the department. At the beginning of their course of study, students meet individually with the Associate Chair, Graduate in order to determine course selection with a view to ensuring that the student has a well-rounded program and, considered in conjunction with the undergraduate degree, has a broad knowledge of the discipline.

Admission to the PhD program is available via one of two routes: 1) an appropriate master's degree or 2) direct entry with an appropriate bachelor's degree with high academic standing.
Field: French Linguistics
PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of French Language and Literature’s additional admission requirements stated below.
- An appropriate master’s degree in French linguistics with high academic standing from a recognized university, with an average grade of at least an A– in the applicant’s overall program.
- An A– average does not automatically lead to admission.
- A formal application and a sample of written work in French completed as part of the applicant's bachelor's or master's program in French linguistics as appropriate. This written work should be a copy of the MA thesis if available.
- Applicants holding a master’s degree must submit a statement of purpose (maximum 500 words) in French that clearly outlines the area in which the applicant intends to pursue research in French linguistics.
- Applicants must satisfy the department that they are capable of independent research in French linguistics at an advanced level.
- Admission to all programs for post-graduate degrees is based on the evidence of the supporting letters and the applicant's academic record.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.5 full-course equivalents (FCEs) including:
  - FRE1103H Séminaire de linguistique I : Phonétique et phonologie (0.5 FCE);
  - FRE1104H Séminaire de linguistique II : Syntaxe (0.5 FCE); and
  - FRE1141H Séminaire de linguistique III : Linguistique expérimentale et linguistique de corpus (0.5 FCE) (unless already completed); and
  - FRE1201H Méthodes de recherche (Credit/No Credit; 0.5 FCE).
- Students must maintain an average grade of at least an A– during Year 1 to remain in good academic standing and to continue in the PhD program. With the department’s permission, students may take 1.0 FCE outside the department.
- **Constitution of thesis committee.** Students must submit a form indicating the members of their thesis committee and the provisional title of the thesis. This form must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student’s supervisory committee. Deadline to submit: June 15 of Year 1.
- **Thesis topic.** Students must register a thesis topic with the department. The proposal must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student's supervisory committee. Deadline to register the topic: September 15 of Year 2.
- **Thesis proposal.** A written thesis proposal, of 15 to 20 pages plus bibliography, must be submitted one week before the date of the oral field examination in April (see below).
- **Language requirements.** Students must demonstrate a reading knowledge of Old French or of another language (excluding French or English), as approved by the department by the end of Year 1.
- **Field examination (written and oral components).**
  - Students must pass the field examination in Year 2.
  - By November 15 of Year 2, students will submit a text of 20 to 25 pages (double-spaced) in article or thesis chapter format, which outlines the state of current research in the primary domain of the dissertation. This text will form the basis of the short article (to be submitted by March 1) and will be assessed as Pass/Fail.
  - By March 1 of Year 2, students must successfully complete a document in the format of a short article which represents a pilot study or a theoretical puzzle in the field of study driven by data gathered by the student.
  - A student may not proceed to the oral part of the field examination until the written part has been successfully completed. In the case of a failure, the full supervisory committee will meet with the student in order to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the written part of the field examination be retaken in whole or in part within a specific period of time; it may also recommend termination of the student's program.
  - The oral part of the field examination is to be taken by April 30 of Year 2. It is based on a 15- to 20-page (double-spaced) “thesis proposal” accompanied by an appropriate bibliography. In the case of a failure, the supervisory committee will meet with the student to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the examination be retaken within a specific period of time; it may also recommend termination of the student's program. If the recommendation is to retake the exam, the student may retake the oral part of the examination once only.
- **Meet with supervisory committee.** Between the completion of the written field examination, oral field examination, and the Doctoral Final Oral Examination on the thesis, students will meet with the supervisory committee at least once a year and more frequently if required.
- **Thesis and Doctoral Final Oral Examination on the thesis.**

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of French Language and Literature’s additional admission requirements stated below.
• An appropriate bachelor's degree with high academic standing from a recognized university that includes at least 7.0 full-course equivalents (FCEs) in French language and linguistics, with an average grade of at least an A– in the overall program. A minimum of five of the seven full courses, or equivalent, should be in the proposed area of study (i.e., linguistics). Applicants may request that up to 2.0 FCEs of the 5.0 FCEs in the discipline come from cognate disciplines upon the department's approval. Admission is limited to exceptionally qualified applicants.
• An A– average does not automatically lead to admission.
• A formal application and a sample of written work in French completed as part of the applicant's bachelor's program in French linguistics as appropriate.
• Applicants must satisfy the department that they are capable of independent research in French linguistics at an advanced level.
• Admission to all programs for post-graduate degrees is based on the evidence of the supporting letters and the applicant's academic record.

Program Requirements

• **Coursework.** Students must successfully complete a total of 7.5 FCEs as follows:
  o In Year 1, complete 4.0 FCEs. In Year 2, complete 3.5 FCEs. These include:
    ▪ FRE1103H Séminaire de linguistique I : Phonétique et phonologie (0.5 FCE);
    ▪ FRE1104H Séminaire de linguistique II : Syntaxe (0.5 FCE);
    ▪ FRE1141H Séminaire de linguistique III : Linguistique expérimentale et linguistique de corpus (0.5 FCE);
    ▪ FRE1201H Méthodes de recherche (Credit/No Credit; 0.5 FCE).
• Students must maintain an average grade of at least an A– in Year 1 and Year 2 to remain in good academic standing and to continue in the PhD program. With the department's permission, students may take up to 1.0 FCE outside the department in each of Year 1 and Year 2.
• **Constitution of thesis committee.** Students must submit a form indicating the members of their thesis committee and the provisional title of the thesis. This form must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student's supervisory committee. Deadline to submit: June 15 of Year 2.
• **Thesis topic.** Students must register a thesis topic with the department. The proposal must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student's supervisory committee. Deadline to register the topic: September 15 of Year 3.
• **Thesis proposal.** A written thesis proposal, of 15 to 20 pages plus bibliography, must be submitted one week before the date of the oral field examination in April (see below).
• **Language requirements.** Students must demonstrate a reading knowledge of Old French or of another language (excluding French or English), as approved by the department — by the end of Year 2.
• **Field examination (written and oral components).**
  o Students must pass the field examination in Year 3.
  o By November 15 of Year 3, students will submit a text of 20 to 25 pages (double-spaced) in article or thesis chapter format, which outlines the state of current research in the primary domain of the dissertation. This text will form the basis of the short article (to be submitted by March 1) and will be assessed as Pass/Fail.
  o By March 1 of Year 3, students must successfully complete a document in the format of a short article which represents a pilot study or a theoretical puzzle in the field of study driven by data gathered by the student.
  o A student may not proceed to the oral part of the field examination until the written part has been successfully completed. In the case of a failure, the supervisory committee will meet with the student in order to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the written part of the field examination be retaken in whole or in part within a specific period of time; it may also recommend termination of the student's program.
  o The oral part of the field examination is to be taken by April 30 of Year 3. It is based on a 15- to 20-page (double-spaced) "thesis proposal" accompanied by an appropriate bibliography. In the case of a failure, the supervisory committee will meet with the student to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the examination be retaken within a specific period of time; it may also recommend termination of the student's program. If the recommendation is to retake the exam, the student may retake the oral part of the examination once only.
• **Meet with supervisory committee.** Between the completion of the written field examination, oral field examination, and the Doctoral Final Oral Examination on the thesis, students will meet with the supervisory committee at least once a year and more frequently if required.
• **Thesis and Doctoral Final Oral Examination** on the thesis.

Program Length

5 years

Time Limit

7 years

French Language and Literature: French Language and Literature PhD; Field: French Literature

Doctor of Philosophy

Program Description

The Doctor of Philosophy is necessary preparation for a career in higher education in Canada and abroad which will include teaching and research at an advanced academic level. The PhD includes a combination of advanced seminars, field examinations, a high amount of embedded professional experience in teaching and research, and the presentation of the results of a significant contribution to the discipline in the form of an original dissertation.
The PhD program engages students in a program of study and research in French literature approved by the department. At the beginning of their program, students meet individually with the Associate Chair, Graduate in order to determine course selection with the objective of ensuring that the student has a well-rounded program and broad knowledge of the discipline.

Admission to the PhD program is available via one of two routes: 1) an appropriate master’s degree or 2) direct entry with an appropriate bachelor’s degree with high academic standing.

Field: French Literature
PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of French Language and Literature's additional admission requirements stated below.
- An appropriate master's degree in French literature with high academic standing from a recognized university, with an average grade of at least an A– in the applicant's overall program.
- An A– average does not automatically lead to admission.
- A formal application and a sample of written work in French completed as part of the applicant's bachelor’s or master's program in French literature as appropriate. This written work should be a copy of the MA thesis if available.
- Applicants holding a master's degree must submit a statement of purpose (maximum 500 words) in French that clearly outlines the area in which the applicant intends to pursue research in French literature.
- Applicants must satisfy the department that they are capable of independent research in French literature at an advanced level.
- Admission to all programs for post-graduate degrees is based on the evidence of the supporting letters and the applicant's academic record.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.5 full-course equivalents (FCEs) including:
  - FRE1202H Séminaire de littérature 1 : théorie (0.5 FCE);
  - FRE1203H Séminaire de littérature 2 : période (0.5 FCE);
  - FRE1204H Séminaire de littérature 3 : genre (0.5 FCE) (unless these courses or their equivalents have already been completed); and
  - FRE1201H Méthodes de recherche (Credit/No Credit; 0.5 FCE).
- Students must maintain an average grade of at least an A– during Year 1 to remain in good academic standing and to continue in the PhD program. With the department’s permission, students may take 1.0 FCE outside the department.
- **Constitution of thesis committee.** Students must submit a form indicating the members of their thesis committee and the provisional title of the thesis. This form must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student's supervisory committee. Deadline to submit: June 15 of Year 1.
- **Thesis topic.** Students must register a thesis topic with the department. The proposal must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student's supervisory committee. Deadline to register the topic: September 15 of Year 2.
- **Thesis proposal.** A written thesis proposal, of 15 to 20 pages plus bibliography, must be submitted one week before the date of the oral field examination in April (see below).
- **Language requirements.** Students must demonstrate a reading knowledge of Old French or of another language (excluding French or English), as approved by the department by the end of Year 1.
- **Field examination (written and oral components).**
  - Students must pass the field examination in Year 2.
  - By November 15 of Year 2, students will produce a written document of approximately 10 to 15 pages (double-spaced) outlining the major area — the literary corpus, the methodological and theoretical perspectives and approaches — from which the thesis will be derived, together with a thematically organized bibliography indicating the primary and secondary works relevant to this area that the student is expected to know in detail. The "outline of the major area" will form the basis for the written part of the field examination (to be submitted by March 1) and will be assessed as Pass/Fail.
  - By March 1 of Year 2, students must successfully complete a take-home examination designed to test the student's knowledge of the general area of their research; the examination questions are given to students a week ahead of the examination.
  - A student may not proceed to the oral part of the field examination until the **written part** has been successfully completed. In the case of a failure, the full supervisory committee will meet with the student in order to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the written part of the field examination be retaken in whole or in part within a specific period of time; it may also recommend termination of the student's program.
  - The **oral part** of the field examination is to be taken by April 30 of Year 2. It is based on a 15- to 20-page (double-spaced) "thesis proposal" accompanied by an appropriate bibliography. In the case of a failure, the supervisory committee will meet with the student to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the examination be retaken within a specific period of time; it may also recommend termination of the student's program. If the recommendation is to retake the exam, the student may retake the oral part of the examination once only.
- **Meet with supervisory committee.** Between the completion of the written field examination, oral field examination, and the Doctoral Final Oral Examination on the thesis, students will meet with the supervisory committee at least once a year and more frequently if required.
- **Thesis and Doctoral Final Oral Examination** on the thesis.

**Program Length**

4 years
Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of French Language and Literature's additional admission requirements stated below.
- An appropriate bachelor’s degree with high academic standing from a recognized university that includes at least 7.0 full-course equivalents (FCEs) in French language and literature, with an average grade of at least an A– in the overall program. A minimum of five of the seven full courses, or equivalent, should be in the proposed area of study (i.e., literature). Applicants may request that up to 2.0 FCEs of the 5.0 FCEs in the discipline come from cognate disciplines upon the department’s approval. Admission is limited to exceptionally qualified applicants.
- An A– average does not automatically lead to admission.
- A formal application and a sample of written work in French completed as part of the applicant's bachelor's program in French literature as appropriate.
- Applicants must satisfy the department that they are capable of independent research in French literature at an advanced level.
- Admission to all programs for post-graduate degrees is based on the evidence of the supporting letters and the applicant's academic record.

Program Requirements

- Coursework. Students must successfully complete a total of 7.5 FCEs as follows:
  - In Year 1, complete 4.0 FCEs. In Year 2, complete 3.5 FCEs. These include:
    - FRE1202H Séminaire de littérature 1 : théorie (0.5 FCE);
    - FRE1203H Séminaire de littérature 2 : période (0.5 FCE);
    - FRE1204H Séminaire de littérature 3 : genre (0.5 FCE); and
    - FRE1201H Méthodes de recherche (Credit/No Credit; 0.5 FCE).
  - Students must maintain an average grade of at least an A– in Year 1 and Year 2 to remain in good academic standing and to continue in the PhD program. With the department's permission, students may take up to 1.0 FCE outside the department in each of Year 1 and Year 2.
- Constitution of thesis committee. Students must submit a form indicating the members of their thesis committee and the provisional title of the thesis. This form must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student’s supervisory committee. Deadline to submit: June 15 of Year 2.
- Thesis topic. Students must register a thesis topic with the department. The proposal must be signed by the faculty member who has agreed to direct the thesis and by the two faculty members who will serve on the student's supervisory committee. Deadline to register the topic: September 15 of Year 3.
- Thesis proposal. A written thesis proposal, of 15 to 20 pages plus bibliography, must be submitted one week before the date of the oral field examination in April (see below).
- Language requirements. Students must demonstrate a reading knowledge of Old French or of another language (excluding French or English), as approved by the department — by the end of Year 2.
- Field examination (written and oral components).
  - Students must pass the field examination in Year 3.
  - By November 15 of Year 3, students will produce a written document of approximately 10 to 15 pages (double-spaced) outlining the major area — the literary corpus, the methodological and theoretical perspectives and approaches — from which the thesis will be derived, together with a thematically organized bibliography indicating the primary and secondary works relevant to this area that the student is expected to know in detail. The “outline of the major area” will form the basis for the written part of the field examination (to be submitted by March 1) and will be assessed as Pass/Fail.
  - By March 1 of Year 3, students must successfully complete a take-home examination designed to test the student's knowledge of the general area of their research; the examination questions are given to students a week ahead of the examination.
  - A student may not proceed to the oral part of the field examination until the written part has been successfully completed. In the case of a failure, the full supervisory committee will meet with the student in order to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the written part of the field examination be retaken in whole or in part within a specific period of time; it may also recommend termination of the student's program.
  - The oral part of the field examination is to be taken by April 30 of Year 3. It is based on a 15- to 20-page (double-spaced) “thesis proposal” accompanied by an appropriate bibliography. In the case of a failure, the supervisory committee will meet with the student to discuss the weaknesses that caused the failure and to make specific recommendations concerning the student's program. The committee may recommend that the examination be retaken within a specific period of time; it may also recommend termination of the student's program. If the recommendation is to retake the exam, the student may retake the oral part of the examination once only.
- Meet with supervisory committee. Between the completion of the written field examination, oral field examination, and the Doctoral Final Oral Examination on the thesis, students will meet with the supervisory committee at least once a year and more frequently if required.

Program Length

5 years

Time Limit

7 years
French Language and Literature: French Language and Literature MA, PhD Courses

Not all courses are offered every year. Please consult the department regarding course availability.

### Core Courses

#### Linguistics Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE1103H</td>
<td>Séminaire de linguistique I : Phonétique et phonologie</td>
</tr>
<tr>
<td>FRE1104H</td>
<td>Séminaire de linguistique II : Syntaxe</td>
</tr>
<tr>
<td>FRE1141H</td>
<td>Séminaire de linguistique III : Linguistique expérimentale et linguistique de corpus</td>
</tr>
</tbody>
</table>

#### Literature Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE1137H</td>
<td>Les mots complexes : études de cas en morphologie</td>
</tr>
<tr>
<td>FRE1138H</td>
<td>Bilinguisme et acquisition du langage</td>
</tr>
<tr>
<td>FRE1141H</td>
<td>Séminaire de linguistique III — Linguistique expérimentale et linguistique de corpus</td>
</tr>
<tr>
<td>FRE1143H</td>
<td>The Evolution of the French Language in Society Throughout the Centuries</td>
</tr>
<tr>
<td>FRE1144H</td>
<td>DP Structure and Adjunct Linearization in French and English</td>
</tr>
<tr>
<td>FRE1145H</td>
<td>La variation linguistique en français hexagonal</td>
</tr>
<tr>
<td>FRE1146H</td>
<td>Acquisition of Sociolinguistic Competence in L2 French</td>
</tr>
<tr>
<td>FRE1147H</td>
<td>Questions et réponses : aspects syntaxiques, phonologiques et discursifs (prerequisites: FRE1104H, FRE1141H)</td>
</tr>
<tr>
<td>FRE1148H</td>
<td>Les sujets postverbaux en français (et au-delà) (prerequisite: FRE1104H)</td>
</tr>
<tr>
<td>FRE1164H</td>
<td>Initiation au français médiéval</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

### Literature Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE1612H</td>
<td>Satire et parole libre dans la littérature des XVIe et XVIIe siècles</td>
</tr>
<tr>
<td>FRE1613H</td>
<td>Les récits de voyage dans la littérature française des XVIe et XVIIe siècles</td>
</tr>
<tr>
<td>FRE1614H</td>
<td>Le roman aux XVIe et XVIIe siècles</td>
</tr>
<tr>
<td>FRE1615H</td>
<td>Littérature française et philosophie</td>
</tr>
<tr>
<td>FRE1815H</td>
<td>Théorie de l'histoire</td>
</tr>
<tr>
<td>FRE1905H</td>
<td>Baudelaire et la modernité symboliste (1850–1900)</td>
</tr>
<tr>
<td>FRE1906H</td>
<td>Théories du rire et analyse littéraire du genre comique</td>
</tr>
<tr>
<td>FRE1928H</td>
<td>Zola et le naturalisme : du « roman exprimental » au « roman nouveau »</td>
</tr>
<tr>
<td>FRE2004H</td>
<td>Formes et voies romanesques de l'extrême contemporain</td>
</tr>
<tr>
<td>FRE2007H</td>
<td>Littérature et éthique : nouveaux textes, nouvelles problématiques</td>
</tr>
<tr>
<td>FRE2011H</td>
<td>Écrire l’athéisme, perspectives littéraires et philosophiques</td>
</tr>
<tr>
<td>FRE2024H</td>
<td>Altérité et représentation : littératures d’Afrique et des Caraïbes</td>
</tr>
</tbody>
</table>

### Elective Courses

Not all courses are offered every year. Please consult the department regarding course availability.

#### Linguistics Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE1002H+</td>
<td>Advanced Oral and Written French for Academic Purposes</td>
</tr>
<tr>
<td>FRE1128H</td>
<td>Le français en contact</td>
</tr>
<tr>
<td>FRE1132H</td>
<td>Problèmes de phonologie : les créoles à base lexicale française</td>
</tr>
<tr>
<td>FRE1136H</td>
<td>Arguments, structures et représentations en français</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>FRE2035H</td>
<td>Autour de l'intime en France: les écrits contemporains des femmes</td>
</tr>
<tr>
<td>FRE2036H</td>
<td>Configurations du genre sexuel dans la prose contemporaine des femmes</td>
</tr>
<tr>
<td>FRE2037H</td>
<td>Écriture et folie</td>
</tr>
<tr>
<td>FRE2039H</td>
<td>Roman et critique sociale aux XXe et XXIe siècles</td>
</tr>
<tr>
<td>FRE2079H</td>
<td>Le Roman postmoderne</td>
</tr>
<tr>
<td>FRE2099H</td>
<td>Roman et document dans l'extrême contemporain</td>
</tr>
<tr>
<td>FRE2100H</td>
<td>Du texte à l'image : Images photographiques et cinématographiques dans quelques textes contemporains</td>
</tr>
<tr>
<td>FRE2102H</td>
<td>Enjeux des productions culturelles autochtones de langue française au Canada</td>
</tr>
<tr>
<td>FRE2105H</td>
<td>Écritures du moi: de la représentation textuelle à la représentation visuelle du sujet écrivant</td>
</tr>
<tr>
<td>FRE2109H</td>
<td>Histoire des pratiques littéraires et culturelles des femmes au Québec (1830–1960)</td>
</tr>
<tr>
<td>FRE2202H</td>
<td>Littérature et presse au Québec (XXe–XXIe siècles)</td>
</tr>
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</table>

**Cross-Listed Courses**

**Book History and Print Culture**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BKS1001H</td>
<td>Introduction to Book History</td>
</tr>
<tr>
<td>BKS1002H</td>
<td>Book History in Practice</td>
</tr>
<tr>
<td>BKS2000H</td>
<td>Advanced Seminar in Book History and Print Culture</td>
</tr>
</tbody>
</table>

**Medieval Studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MST3232H</td>
<td>Vernacular Literature in Medieval Europe: Status and Function</td>
</tr>
<tr>
<td>MST3154H</td>
<td>Book History and Print Culture</td>
</tr>
<tr>
<td>MST3155H</td>
<td>Middle French Literature</td>
</tr>
</tbody>
</table>

**Sexual Diversity Studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SDS1000H</td>
<td>Theoretical and Methodological Issues in Sexual Diversity Studies</td>
</tr>
</tbody>
</table>

**Other Courses**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FRE4000Y</td>
<td>Reading Course</td>
</tr>
<tr>
<td>FRE4001H</td>
<td>Reading Course</td>
</tr>
<tr>
<td>FRE5000Y*</td>
<td>Research Essay (MA)</td>
</tr>
<tr>
<td>FRE5001H*</td>
<td>Research Essay (MA)</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.*

**Joint Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JFC1813H</td>
<td>Littérature de contact et pensée anthropologique en France du XVIe au XVIIIe siècle / Literature of Contact and Anthropological Thought, 16th–18th Century</td>
</tr>
<tr>
<td>JFC5025H</td>
<td>Feminism and Postmodernism: Theory and Practice</td>
</tr>
<tr>
<td>JFC5105H</td>
<td>Collections of Knowledge: Encyclopedism and Travel Literature in Early Modern Europe (1500–1800)</td>
</tr>
<tr>
<td>JFC5129H</td>
<td>Performative Autobiographical Acts: Painted and photographic representations of self in Personal and Political Testimonials</td>
</tr>
</tbody>
</table>
Geography and Planning

Geography and Planning: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Geography

MA, MSc, and PhD

- Fields:
  - Environmental Geography and Resource Management;
  - Historical/Social/Cultural Geography;
  - Physical Geography and Natural Systems;
  - Spatial Information Systems;
  - Urban/Economic Geography.

Planning

MScPl

- Concentrations:
  - Economic Development Planning;
  - Environmental Planning;
  - Social Planning and Policy;
  - Transportation Planning and Infrastructure;
  - Urban Design and Spatial Planning.

PhD

- Fields:
  - Cities in Global Context: Economic Development and Social Planning;
  - Environmental and Sustainability Planning;
  - Urban Development, Design and the Built Environment.

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Community Development (admissions have been administratively suspended)
  - Geography, MA
  - Planning, MScPI
- Contemporary East and Southeast Asian Studies
  - Geography, MA
  - Planning, MScPI
- Development Policy and Power
  - Geography, MA
- Diaspora and Transnational Studies
  - Geography, MA, MSc, PhD
- Environmental Studies
  - Geography, MA, MSc, PhD
  - Planning, MScPl, PhD
- Environment and Health
  - Geography, MA, MSc, PhD
  - Planning, MScPl, PhD
- Ethnic, Immigration and Pluralism Studies
  - Geography, MA, PhD
- Food Studies
  - Geography, MA, MSc, PhD
- Global Health (U of T Global Scholar)
  - Geography, MA, MSc, PhD
  - Planning, MScPl, PhD
- Jewish Studies
  - Geography, PhD
- Sexual Diversity Studies
  - Geography, MA, PhD
- South Asian Studies
  - Geography, MA, PhD
- Women and Gender Studies
  - Geography, MA, MSc, PhD
  - Planning, MScPl, PhD

Overview

The Department of Geography and Planning offers facilities for research leading to the degrees of Master of Arts (MA), Master of Science (MSc), Master of Science in Planning (MScPl), and Doctor of Philosophy (PhD) in either Geography or Planning. The PhD program prepares students for academic careers in teaching and research. Some may also pursue an advanced career in the public or non-profit sectors, given the rising demand outside of academia for people with a PhD credential. In Geography, faculty conduct research in the following areas: geomorphology, climatology, hydrology, biogeography, pedology, environmental assessment and sustainable natural resource management, international development, industrial innovation, urban and economic geography, cultural and historical geography, gender studies, social geography, regional analysis, the history and philosophy of geography, remote sensing, computer cartography, spatial statistics, topics in land/geographic information systems, and quantitative analysis. The territories of special concern are Canada, the United States, Latin America, the Caribbean, Northwestern and Central Europe, East Asia, South Asia, and the former Soviet Union.

In Planning, faculty work involves social, economic, cultural, and other vital considerations. In spatial scale, it ranges from the design of individual communities to policy planning at the national level to international development. Planning specializations include land use, transportation, urban design, social policy, public health, economic development, international development, and the environment.

Contact and Address

Web: geography.utoronto.ca
Geography programs email: graduate.geography@utoronto.ca
MSc Planning program email: planning.geoplan@utoronto.ca
PhD Planning program email: graduate.planning@utoronto.ca
Geography and PhD programs telephone: (416) 978-3377
MSc Planning program telephone: (416) 946-0269
Fax: (416) 946-3886

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University of Toronto
Sidney Smith Hall
5th Floor, 100 St. George Street
Toronto, Ontario M5S 3G3
Canada
Geography and Planning: Graduate Faculty

Full Members

Abizaid, Christian - MA, PhD
Archontitsis, Georgios - BSc, MSc, PhD
Bathelt, Harald - MA, PhD, CRC
Boland, Alana - BA, MA, PhD
Breznitz, Shiri - BA, MA, PhD
Brown, Laura - BSc, MSc, PhD
Buckley, Michelle - BES, MES, PhD
Buliung, Ronald - MA, PhD
Bunce, Susannah - BA, MES, PhD
Caspersen, John - BA, PhD
Chapple, Karen - BA, MRP, PhD
Chen, Jing - BSc, PhD
Conway, Tenley - BS, MS, PhD
Cowen, Deborah - BA, MCP, PhD
Cowling, Sharon - BSc, MSc, PhD
Creed, Irena - BSc, MSc, PhD
Daniere, Amrita - AB, PhD
Desloges, Joseph - BES, MSc, PhD
Desrochers, Pierre - AB, MA, PhD
Diamond, Miriam - MSc, MSc, PhD
DiFrancesco, Richard - PhD (Chair)
Duval, Timothy - BSc, MSc, PhD
Ekers, Mike - BES, MES, PhD
Farber, Steven - BA, MA, PhD
Farish, Matthew - BA, PhD
Finkelstein, Sarah - AB, MPH, PhD
Florida, Richard - BA, PhD
Gertler, Meric - AB, MCP, PhD
Gilbert, Emily - PhD
Goonewardena, Kanishka - BSc, MCP, PhD
Gough, William - BSc, MSc, PhD
Hackerworth, Jason - BA, MA, MCP, PhD
Harvey, Danny - BSc, MSc, PhD
He, Yuhong - PhD
Hess, Paul - BA, MA, PhD
Hunter, Mark - BA, MSS, PhD
Isaak, Marney Elizabeth - BS, MES, PhD
Isakson, Ryan - BSc, BA, PhD
Kant, Shashi - BE, MA, PhD
Kepe, Thembela - MS, PhD
Klenk, Nicole - BS, MSc, PhD
Lehnherr, Igor - BSc, PhD
Leslie, Deborah - BA, MA, PhD (Associate Chair, Graduate Geography)
Liu, Jane - BSc, MSc, PhD
MacDonald, Ken - BA, MA, PhD
Maclaren, Virginia - BA, MRP, MSc, PhD
Malcolm, Jay - BSc, MSc, PhD
Miller, Eric - BASc, MSc, PhD
Miron, John - BA, MA, MSc, PhD
Mitchell, Cari - PhD
Mollett, Sharlene - BA, MES, DA
Narayananreddy, Rajyashree - BA, MEC, MS, PhD
Olive, Andrea - PhD
Oswin, Natalie Karen - BA, MA, PhD
Poland, Blake - BA, PhD
Porter, Trevor - BSc, PhD
Prudham, Scott - BASc, BA, MA, PhD
Rankin, Katharine - BA, MA, PhD
Robinson, John - BA, BA, MES, MES, PhD, PhD
Sliemiatyczki, Matti - BA, MSc, PhD
Silvey, Rachel - BA, MA, PhD
Simpson, Myrna - BS, DPhil
Singh, Neera - BSc, MF, PhD

Members Emeriti

Bourne, Larry - BA, MA, PhD
Britton, John - BA, MA, PhD
Greenwood, Brian - BSc, PhD

Associate Members

Allahwala, Ahmed - MA, PhD
Antabe, Roger - BA, MA, PhD
Arain, Altaf - BE, MS, PhD
Bell, Terrence - BSc, MSc, PhD
Boyes, Don - BS, MA, PhD
Braill, Shauna - BA, MA, PhD
Dantzler, Pretiss - BS, MSc, MPA, PhD
Dunn, James - AB, AM, PhD
Ghosh, Sutama - BA, BE, MA, MSS, PhD
Hyde, Zachary - BA, MA, PhD
Joseph, Janelle - BSc, MSc
Kipfer, Stefan - BA, MES, PhD
Laliberte, Nicole - BA, MS, PhD
Latulippe, Nicole Monique - BA, MA, PhD
Leydon, Joseph - BA, MA, PhD
Mah, Julie - BA, MSc, PhD, PhD
Malik, Karim - BSA, MSc, PhD
Mclaughlin, James - PhD
Mehta, Aditi - DA
Peirce, Sarah - BSc, MSc, PhD
Roberts, David - DA
Shang, Jiali - DSc
Smith, Lindsey Gail - PhD
Staebler, Raif - PhD
Stephens, Lindsay - BA, BA, MSc, MSc, PhD, PhD
Subramanyam, Nidhi - BArch, MRP
Tassak, David - BSc, MSc, PhD
Temenos, Cristina - PhD
Tozer, Laura Molly - BSc, MA, PhD

Geography and Planning: Geography MA

Master of Arts

Program Description

The MA program offers studies in areas of human geography, including historical/social/cultural geography, urban/economic geography, environmental geography and resource management and some areas of spatial information systems. Applicants should apply to the MA degree program (rather than the MSc) if their planned research contains a substantial human geography component and if two-thirds of their planned coursework comprises Geography courses accepted by the department as social science courses.
MA Program (Thesis Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with a minimum standing equivalent to at least a University of Toronto B+ in the final two years.
- Applicants are expected to have completed at least 4.0 full-course equivalents (FCEs) in geography or a related field. Applicants lacking the minimum requirements should consider doing qualifying work at the undergraduate level prior to application. Such work should be undertaken in consultation with the Graduate Coordinator. Applicants who hold an appropriate bachelor's degree but are changing disciplines or require further preparatory work, may be required to complete an additional year of graduate-level coursework.

Program Requirements

- Progress into the second session is dependent on achieving an overall B average in the first session and satisfactory progress as outlined in the Graduate Geography Handbook.
- Students undertake research leading to the preparation of a thesis (RST9999Y), in conjunction with at least the equivalent of 1.5 FCEs in coursework including:
  - 0.5 FCE core course GGR1105H Human Geography Core Course;
  - 0.5 FCE elective course in geography or from an approved list of courses available from the department; and
  - 0.5 FCE elective course that may be taken inside or outside the department.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

MA Program (Research Paper Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with a minimum standing equivalent to at least a University of Toronto B+ in the final two years.
- Applicants are expected to have completed at least 4.0 full-course equivalents (FCEs) in geography or a related field.
- Applicants lacking the minimum requirements should consider doing qualifying work at the undergraduate level prior to application. Such work should be undertaken in consultation with the Graduate Coordinator. Applicants who hold an appropriate bachelor's degree but are changing disciplines or require further preparatory work, may be required to complete an additional year of graduate-level coursework.

Program Requirements

- Progress into the second session is dependent on achieving an overall B average in the first session and satisfactory progress as outlined in the Graduate Geography Handbook.
- Students will undertake research leading to the preparation of a major research paper (GGR1100Y, 1.0 FCE), in conjunction with the equivalent of 3.0 graduate FCEs in coursework including:
  - 0.5 FCE core course GGR1105H Human Geography Core Course;
  - 1.5 FCE elective courses in geography or from an approved list of courses available from the department; and
  - 1.0 FCE elective courses, 0.5 FCE of which must be taken outside the department.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Geography and Planning: Geography MSc

Master of Science

Program Description

The MSc program offers studies in the areas of physical geography, spatial information systems and some areas of environmental studies. Applicants should apply to the MSc degree program (rather than the MA) if their planned research contains a substantial physical science component and if two-thirds of their planned coursework comprises Geography courses accepted by the department as physical science courses.

MSc Program (Thesis Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning's additional admission requirements stated below.
An appropriate bachelor's degree from a recognized university with a minimum standing equivalent to at least a University of Toronto B+ in the final two years.

Applicants are expected to have completed at least 4.0 full-course equivalents (FCEs) in geography or a related discipline. Applicants lacking the minimum requirements should consider doing qualifying work at the undergraduate level prior to application. Such work should be undertaken in consultation with the Graduate Coordinator. Applicants who hold an appropriate bachelor's degree but are changing disciplines or require further preparatory work, may be required to complete an additional year of graduate-level coursework.

Program Requirements

Progress into the second session is dependent on achieving an overall B average in the first session and satisfactory progress as outlined in the Graduate Geography Handbook.

Students undertake research leading to the preparation of a thesis (RST9999Y), in conjunction with at least the equivalent of 1.5 FCEs in coursework including:

- 0.5 FCE core course GGR1200H Physical Geography Core Course;
- 0.5 FCE elective course in geography or from an approved list of courses available from the department; and
- 0.5 FCE elective course that may be taken inside or outside the department.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

Time Limit

3 years full-time; 6 years part-time

MSc Program (Research Paper Option)

Minimum Admission Requirements

Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning's additional admission requirements stated below.

An appropriate bachelor's degree from a recognized university with a minimum standing equivalent to at least a University of Toronto B+ in the final two years.

Applicants are expected to have completed at least 4.0 full-course equivalents (FCEs) in geography or a related discipline. Applicants lacking the minimum requirements should consider doing qualifying work at the undergraduate level prior to application. Such work should be undertaken in consultation with the Graduate Coordinator. Applicants who hold an appropriate bachelor's degree but are changing disciplines or require further preparatory work, may be required to complete an additional year of graduate-level coursework.

Program Requirements

Progress into the second session is dependent on achieving an overall B average in the first session and satisfactory progress as outlined in the Graduate Geography Handbook.

Students will undertake research leading to the preparation of a major research paper (GGR1100Y; 1.0 FCE), in conjunction with the equivalent of 3.0 graduate FCEs in coursework including:

- 0.5 FCE core course GGR1200H Physical Geography Core Course;
- 1.5 FCE elective courses in geography or from an approved list of courses available from the department; and
- 1.0 FCE elective courses, 0.5 FCE of which must be taken outside the department.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Geography and Planning: Geography PhD

Fields: 1) Physical Geography and Natural Systems; 2) Spatial Information Systems

Doctor of Philosophy

Program Description

The PhD is primarily a research degree. A program of study is designed for each student to ensure competence in a field of research and to facilitate the preparation of a dissertation.

Applicants may enter the PhD program via one of two routes: 1) following completion of a master's degree or 2) direct entry after completing a bachelor's degree.

Fields:

Physical Geography and Natural Systems; Spatial Information Systems

PhD Program

Minimum Admission Requirements

Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning's additional admission requirements stated below.

An appropriate master's degree from a recognized university, with a minimum standing equivalent to at least a University of Toronto A–.
Program Requirements

- Complete a minimum of 1.5 full-course equivalents (FCEs) in coursework as follows:
  - 0.5 FCE core course GGR1200H Physical Geography Core Course. Students who have taken GGR1200H at the master’s level may take an alternative geography course;
  - 0.5 FCE in geography courses or from a list of approved courses available from the department;
  - 0.5 FCE in elective courses which may be taken in any departments.
- Students who hold an appropriate master’s degree but are changing disciplines or require further preparatory work may be required to complete additional coursework.
- Submit a research statement concerning the proposed PhD topic and the scope of the PhD examination by the end of April in Year 1.
- Pass a PhD examination in the general field in which research is being undertaken between June of Year 1 and no later than December of Year 2. The scope and areas of concentration of the exam are to be determined jointly by the supervisory committee and the student. There are two components of the PhD exam:
  - A written exam (options are an eight-hour closed room exam on campus in one day or over two days, or a five-day off-campus exam).
  - An oral exam to take place within one week of the written exam.
- A student who fails the PhD examination may retake the exam once within six months. Failure of the second exam may result in a recommendation for termination from the program.
- Acquire knowledge of a foreign language necessary for research upon the recommendation of the supervisory committee.
- Submit a research proposal that is acceptable to the supervisory committee, normally by the end of June of Year 2 and no later than September of Year 3.
- Unless otherwise specified, two years of residence are required whereby the student is required to be on campus full-time and consequently in such geographical proximity as to be able to participate fully in University activities associated with the program.
- Complete a thesis embodying the results of original investigation, conducted by the candidate, on the approved topic from a major area of study. The thesis shall constitute a significant contribution to the knowledge of the field and must be conducted while the student is registered in the PhD program.
- See the Graduate Geography Handbook and visit the department’s website.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning’s additional admission requirements stated below.
- In exceptional cases and at the discretion of the department, admission to the PhD program by direct entry may be approved for applicants with an overall A average and an appropriate bachelor’s degree from a recognized university.

Program Requirements

- Complete a minimum of 3.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course GGR1200H Physical Geography Core Course;
  - 0.5 FCE in geography courses or from a list of approved courses available from the department;
  - 2.0 FCE in elective courses which may be taken in any department.
- Submit a research statement concerning the proposed PhD topic and the scope of the PhD examination by the end of April in Year 1.
- Pass a PhD examination in the general field in which research is being undertaken between June of Year 1 and no later than December of Year 2. The scope and areas of concentration of the exam are to be determined jointly by the supervisory committee and the student. There are two components of the PhD exam:
  - A written exam (options are an eight-hour closed room exam on campus in one day or over two days, or a five-day off-campus exam).
  - An oral exam to take place within one week of the written exam.
- A student who fails the PhD examination may retake the exam once within six months. Failure of the second exam may result in a recommendation for termination from the program.
- Acquire knowledge of a foreign language necessary for their research upon the recommendation of their supervisory committee.
- Submit a research proposal that is acceptable to the supervisory committee, normally by the end of June of Year 2 and no later than September of Year 3.
- Unless otherwise specified, two years of residence are required whereby the student is required to be on campus full-time and consequently in such geographical proximity as to be able to participate fully in University activities associated with the program.
- Complete a thesis embodying the results of original investigation, conducted by the candidate, on the approved topic from a major area of study. The thesis shall constitute a significant contribution to the knowledge of the field and must be conducted while the student is registered in the PhD program.
- See the Graduate Geography Handbook and visit the department’s website.

Program Length

5 years
Time Limit

7 years

Geography and Planning: Geography PhD
Fields: 3) Environmental Geography and Resource Management; 4) Historical/Social/Cultural Geography; 5) Urban/Economic Geography

Doctor of Philosophy

Program Description

The PhD is primarily a research degree. A program of study is designed for each student to ensure competence in a field of research and to facilitate the preparation of a dissertation.

Applicants may enter the PhD program via one of two routes: 1) following completion of a master’s degree or 2) direct entry after completing a bachelor’s degree.

Program Requirements

• Complete a minimum of 3.0 full-course equivalents (FCEs) in coursework including:
  o 0.5 FCE core course GGR1110H Issues in Geographic Thought and Practice.
  o 1.0 FCE in geography courses or from a list of approved courses available from the department.
  o At least 0.5 FCE but not more than 1.5 FCE courses in other departments.
  o In exceptional cases, at the discretion of the department, up to 1.0 FCE of graduate courses completed at the master's level at the University of Toronto may be counted towards meeting some course requirements.
  o Students who hold an appropriate master's degree but are changing disciplines or require further preparatory work may be required to complete additional coursework.
  o Submit a research statement concerning the proposed PhD topic and the scope of the PhD examination by the end of April in Year 1.
  o Pass a PhD examination in the general field in which research is being undertaken between June of Year 1 and no later than December of Year 2. The scope and areas of concentration of the exam are to be determined jointly by the supervisory committee and the student. There are two components of the PhD exam:
    o A written exam (options are an eight-hour closed room exam on campus in one day or over two days, or a five-day off-campus exam).
    o An oral exam to take place within one week of the written exam.
  o A student who fails the PhD examination may retake the exam once within six months. Failure of the second exam may result in a recommendation for termination from the program.
  o Acquire knowledge of a foreign language necessary for research upon the recommendation of the supervisory committee.
  o Submit a research proposal that is acceptable to the supervisory committee, normally by the end of June of Year 2 and no later than September of Year 3.
  o Unless otherwise specified, two years of residence are required whereby the student is required to be on campus full-time and consequently in such geographical proximity as to be able to participate fully in the University activities associated with the program.
  o Complete a thesis embodying the results of original investigation, conducted by the candidate, on the approved topic from a major area of study. The thesis shall constitute a significant contribution to the knowledge of the field and must be conducted while the student is registered in the PhD program.
  o See the Graduate Geography Handbook and visit the department's website.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning's additional admission requirements stated below.

• In exceptional cases and at the discretion of the department, admission to the PhD program by direct entry may be approved for applicants with an overall A average and appropriate bachelor's degree from a recognized university.
Program Requirements

- Complete a minimum of 3.0 full-course equivalents (FCEs) in coursework as follows:
  - 0.5 FCE core course GGR1110H *Issues in Geographic Thought and Practice.*
  - 1.0 FCE in geography courses or from a list of approved courses available from the department.
  - at least 0.5 FCE but no more than 1.5 FCE courses in other departments.
- Submit a research statement concerning the proposed PhD topic and the scope of the PhD examination by the end of April in Year 1.
- Pass a PhD examination in the general field in which research is being undertaken between June of Year 1 and no later than December of Year 2. The scope and areas of concentration of the exam are to be determined jointly by the supervisory committee and the student. There are two components of the PhD exam:
  - a written exam (options are an eight-hour closed room exam on campus in one day or over two days, or a five-day off-campus exam), and
  - an oral exam to take place within one week of the written exam.
- A student who fails the PhD examination may retake the exam once within six months. Failure of the second exam may result in a recommendation for termination from the program.
- Acquire knowledge of a foreign language necessary for the research upon the recommendation of the supervisory committee.
- Submit a research proposal that is acceptable to the supervisory committee, normally by the end of June of Year 2 and no later than September of Year 3.
- Unless otherwise specified, two years of residence are required whereby the student is required to be on campus full-time and consequently in such geographical proximity as to be able to participate fully in the University activities associated with the program.
- Complete a thesis embodying the results of original investigation, conducted by the candidate, on the approved topic from a major area of study. The thesis shall constitute a significant contribution to the knowledge of the field and must be conducted while the student is registered in the PhD program.
- See the Graduate Geography Handbook and visit the department's website.

Program Length

5 years

Time Limit

7 years

Geography and Planning: Geography MA, MSc, PhD Courses

The following graduate courses will be available on demand and subject to faculty resources. Not all courses are given every year, and some members of the graduate faculty are on research leave. Please consult the departmental graduate office. The 2000-level courses are normally open to PhD students only.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGR1105H</td>
<td>Human Geography Core Course</td>
</tr>
<tr>
<td>GGR1110H</td>
<td>Issues in Geographic Thought and Practice</td>
</tr>
<tr>
<td>GGR1200H</td>
<td>Physical Geography Core Course</td>
</tr>
</tbody>
</table>

Research Methods Courses

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>GGR1111H</td>
<td>Social Research Methods</td>
</tr>
<tr>
<td>JPG1120H</td>
<td>Advanced Qualitative Research: Methodology and Epistemological Foundations for Planning and Geography</td>
</tr>
<tr>
<td>JPG1130H</td>
<td>Qualitative Data Analysis: Coding, Interpreting, and Writing Qualitative Research</td>
</tr>
<tr>
<td>JPG1170H</td>
<td>Statistical Testing and Analysis</td>
</tr>
<tr>
<td>GGR1218H</td>
<td>Quantitative, Open-Source Methods in Physical Geography Research</td>
</tr>
<tr>
<td>JPG1400H</td>
<td>Advanced Quantitative Methods</td>
</tr>
</tbody>
</table>

Individual Topics Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGR1149H</td>
<td>Readings in Selected Topics</td>
</tr>
<tr>
<td>GGR1149Y</td>
<td>Readings in Selected Topics</td>
</tr>
<tr>
<td>GGR2149H</td>
<td>Readings in Selected Topics</td>
</tr>
<tr>
<td>GGR2149Y</td>
<td>Readings in Selected Topics</td>
</tr>
<tr>
<td>GGR2150H</td>
<td>Advanced Seminar in Selected Topics</td>
</tr>
<tr>
<td>GGR2150Y</td>
<td>Advanced Seminar in Selected Topics</td>
</tr>
<tr>
<td>JPG2150H</td>
<td>Advanced Seminars in Selected Topics</td>
</tr>
<tr>
<td>GGR2151H</td>
<td>Advanced Seminars in Selected Topics II</td>
</tr>
<tr>
<td>JPG2151H</td>
<td>Advanced Seminars in Selected Topics II</td>
</tr>
</tbody>
</table>

Environmental and Resource Geography

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGR1404H</td>
<td>Global Warming</td>
</tr>
<tr>
<td>JPG1404H</td>
<td>Issues in Global Warming</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>GGR1407H</td>
<td>Efficient Use of Energy (exclusion: GGR347H1)</td>
</tr>
<tr>
<td>GGR1408H</td>
<td>Carbon-Free Energy (exclusions: GGR1406H, GGR348H1)</td>
</tr>
<tr>
<td>GGR1411H</td>
<td>Nature and Justice in the Anthropocene</td>
</tr>
<tr>
<td>GGR1422H</td>
<td>The Geography of Urban Air Pollution</td>
</tr>
<tr>
<td>JGE1425H</td>
<td>Livelihoods, Poverty, and Environment in the Developing Countries</td>
</tr>
<tr>
<td>JPG1426H</td>
<td>Natural Resources, Difference, and Conflict</td>
</tr>
<tr>
<td>JPG1428H</td>
<td>Greening the City: Urban Environmental Planning and Management</td>
</tr>
<tr>
<td>JPG1429H</td>
<td>Political Ecology of Food and Agriculture</td>
</tr>
<tr>
<td>FOR1610H</td>
<td>Sustainable Forest Management and Certification (exclusion: JPG1610H)</td>
</tr>
</tbody>
</table>

### Geographical Information Analysis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>JPG1906H</td>
<td>Geographic Information Systems</td>
</tr>
<tr>
<td>JPG1909H</td>
<td>Advanced Space-Time Data Analysis and Visualization</td>
</tr>
<tr>
<td>GGR1911H</td>
<td>Remote Sensing (exclusions: GGR337H1, GGR437H1, GGR1912H)</td>
</tr>
<tr>
<td>JPG1914H</td>
<td>Geographic Information Systems Research Project (exclusion: GGR462H1)</td>
</tr>
<tr>
<td>GGR1916H</td>
<td>Remote Sensing of Vegetation Traits and Function (exclusion: GGR414H1S)</td>
</tr>
<tr>
<td>GGR1921H</td>
<td>Land/Geographic Information Systems</td>
</tr>
</tbody>
</table>

### Historical, Social, and Cultural Geography

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>JPG1503H</td>
<td>Space, Time, Revolution</td>
</tr>
<tr>
<td>JPG1506H</td>
<td>State/Space/Difference: Understanding the New Social Geography of the State</td>
</tr>
<tr>
<td>JPG1511H</td>
<td>The Commons: Geography, Planning, Politics</td>
</tr>
<tr>
<td>JPG1520H</td>
<td>Contested Geographies of Class-Race Formations</td>
</tr>
<tr>
<td>JPG1522H</td>
<td>Production of Space: Aesthetics, Technology, Politics</td>
</tr>
<tr>
<td>GGR1705H</td>
<td>Historical Geographies of Modernity</td>
</tr>
<tr>
<td>JPG1706H</td>
<td>Violence and Security</td>
</tr>
<tr>
<td>JPG1805H</td>
<td>Transnationalism, Diaspora, and Gender</td>
</tr>
<tr>
<td>GGR1807H</td>
<td>Geographies of Postcoloniality and Development: Exploring the ‘Infrastructure Turn’</td>
</tr>
<tr>
<td>JPG1809H</td>
<td>Spaces of Work: Value, Identity, Agency, Justice</td>
</tr>
<tr>
<td>JPG1812Y</td>
<td>Planning for Change: Community Development in Practice</td>
</tr>
<tr>
<td>JPG1813H</td>
<td>Social Planning and Policy</td>
</tr>
<tr>
<td>JPG1815H</td>
<td>Political Economy, the Body, and Health</td>
</tr>
<tr>
<td>JPG1816H</td>
<td>Geographies of Secularism and Islam</td>
</tr>
<tr>
<td>JPG1817H</td>
<td>Geographies of Drug Use: History, Power, and Space</td>
</tr>
<tr>
<td>JPG1818H</td>
<td>The Geography and Planning of Climate Action and Activism</td>
</tr>
<tr>
<td>GGR1821H</td>
<td>China Development Seminar</td>
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<tr>
<td>GGR1822H</td>
<td>Queer Geographies</td>
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<tr>
<td>JPG1825H</td>
<td>Black Geographies of the Atlantic</td>
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<tr>
<td>JPG1828H</td>
<td>Place and Indigenous Research</td>
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<td>JPG1830H</td>
<td>Utopia/Dystopia</td>
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<tr>
<td>GGR1832H</td>
<td>Geographies of Decolonization and Liberation</td>
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<td>JPG1835H</td>
<td>Anti-Colonial Planning: Theory and Practice</td>
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### Physical Geography

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>GGR1215H</td>
<td>Advanced Watershed Hydroecology (exclusion: GGR413H1)</td>
</tr>
<tr>
<td>GGR1216H</td>
<td>Advanced Biogeochemical Processes (exclusion: GGR406H1)</td>
</tr>
<tr>
<td>GGR1217H</td>
<td>The Climate of the Arctic (exclusion: GGR484H1)</td>
</tr>
<tr>
<td>GGR1302H</td>
<td>Advanced Hydrology and Water Quality (exclusion: GGR407H1)</td>
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<tr>
<td>GGR1315H</td>
<td>The Cryosphere (exclusion: GGR317H1)</td>
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### Urban and Economic Geography

<table>
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<th>Course Code</th>
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<tr>
<td>JPG1502H</td>
<td>Global Urbanism and Cities of the Global South</td>
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<tr>
<td>JPG1504H</td>
<td>Institutionalism and Cities: Space, Governance, Property and Power</td>
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<tr>
<td>JPG1507H</td>
<td>Housing Markets and Housing Policy Analysis</td>
</tr>
<tr>
<td>JPG1512H</td>
<td>Place, Politics, and the Urban</td>
</tr>
</tbody>
</table>
Program Requirements

- The program consists of **8.0 full-course equivalents (FCEs)** plus the PLA4444Y internship, taken over two years, as follows:
  - 4.0 FCEs in core courses
  - 4.0 FCEs chosen from the list of electives and from the offerings of other departments, centres, and institutes. At least 1.5 FCEs of these electives must be from the following list:
    - PLA1525H Urban, Regional, and Community Economic Development
    - PLA1601H Environmental Planning in a Changing Climate
    - PLA1652H Introductory Studio in Urban Design and Planning
    - PLA1656H Land Use Planning: Principles and Practice
    - PLA1703H Transportation Planning and Infrastructure
    - PLA1813H Planning and Social Policy
  - PLA4444H Internship (0.0 FCE). Students must pursue a planning internship between Years 1 and 2 of the program. Part-time students who are currently employed in a planning environment may be exempted from this requirement; however, the Planning Director retains final discretion in the decision.
- Progress into Year 2 of the program normally depends on the achievement of an overall B average in Year 1. Equivalent provisions apply to the part-time option.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
12 sessions part-time

Time Limit

3 years full-time;
6 years part-time

MScPl General Program (With a Concentration)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning’s additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university, with a minimum final-year standing in the social or life sciences, the humanities, or the professions, equivalent to at least a University of Toronto B+. Knowledge of introductory economics and statistics, as well as word processing and spreadsheet skills, is preferred prior to entry.

Program Requirements

- The program consists of **8.0 full-course equivalents (FCEs)** plus the PLA4444Y internship, taken over two years, as follows:
  - 4.0 FCEs in core courses
• 4.0 FCEs chosen from the list of electives and from the offerings of other departments, centres, and institutes. 2.0 FCEs of these electives must be completed in one of the following concentrations:
  ▪ Economic Development Planning
  ▪ Environmental Planning
  ▪ Social Planning and Policy
  ▪ Transportation Planning and Infrastructure
  ▪ Urban Design and Spatial Planning

• PLA4444H Internship (0.0 FCE). Students must pursue a planning internship between Years 1 and 2 of the program. Part-time students who are currently employed in a planning environment may be exempted from this requirement; however, the Planning Director retains final discretion in the decision.

  • Progress into Year 2 of the program normally depends on the achievement of an overall B average in Year 1. Equivalent provisions apply to the part-time option.

**Program Length**

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
12 sessions part-time

**Time Limit**

3 years full-time;
6 years part-time

**Geography and Planning: Planning PhD**

**Doctor of Philosophy**

**Program Description**

The PhD is primarily a research degree. A program of study is designed for each student to ensure competence in a field of research and to facilitate the preparation of a dissertation.

**Minimum Admission Requirements**

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Geography and Planning’s additional admission requirements stated below.

• An appropriate master’s degree in planning or a related field, or its equivalent from a recognized university, with a minimum standing equivalent to at least a University of Toronto A– and demonstrated competence in analytical methods or successful completion of one of two methods courses in the current master’s program.

**Program Requirements**

All PhD students must:

• Take 3.0 full-course equivalents (FCEs), if they hold a master's degree in planning comparable to the U of T MSc in Planning, as follows:

  • 1.5 FCEs in core courses
  • 1.5 FCEs in electives (at least 0.5 elective FCE must be outside the Planning program).

Students who enter with a master’s degree in a related field may be required to take up to an additional 1.0 FCE depending on their background and experience.

• Submit a research statement concerning the proposed PhD topic and the scope of the PhD examination by the end of April in Year 1.

• Pass a PhD examination in the general field in which research is being undertaken between June of Year 1 and no later than December of Year 2. The scope and areas of concentration of the exam are to be determined jointly by the supervisory committee and the student. There are two components of the PhD exam:

  • a written exam (options are an eight-hour closed room exam on campus in one day or over two days, or a five-day off-campus exam); and
  • an oral exam to take place within one week of the written exam.

A student who fails the PhD examination may retake the exam once within six months. A failure of the second exam may result in recommendation for termination of the student’s program.

• Acquire knowledge of a foreign language necessary for their research upon the recommendation of their committee.

• Submit a research proposal that is acceptable to their research committee, normally by the end of June of Year 2 and no later than September of Year 3.

• Be in residence for two years, unless otherwise specified, during which the student is required to be on campus full-time and consequently in such geographical proximity as to be able to participate fully in the University activities associated with the program.

• Complete a thesis embodying the results of original investigation, conducted by the candidate, on the approved topic from a major area of study. The thesis shall constitute a significant contribution to the knowledge of the field and must be conducted while the student is registered in the PhD program.

• PhD degree program details are fully described in the Graduate Planning Handbook and the department's website.

**Program Length**

4 years full-time

**Time Limit**

6 years full-time

**Geography and Planning: Planning MScPl, PhD Courses**

All courses are not given every year; some faculty members may be on research leave. Please consult the departmental graduate office for details.
Core Courses for the MScPl

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA1101H</td>
<td>Planning History, Thought, and Practice</td>
</tr>
<tr>
<td>PLA1102H</td>
<td>Planning Decision Methods I</td>
</tr>
<tr>
<td>PLA1103H</td>
<td>Legal Basis of Planning</td>
</tr>
<tr>
<td>PLA1105H</td>
<td>Planning Decision Methods II</td>
</tr>
<tr>
<td>PLA1106H</td>
<td>Workshop in Planning Practice</td>
</tr>
<tr>
<td>PLA1107Y</td>
<td>Current Issues Paper</td>
</tr>
<tr>
<td>PLA1108H</td>
<td>Communication in the Face of Power</td>
</tr>
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</table>

Core Courses for the PhD in Planning

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>JPG1120H</td>
<td>Advanced Qualitative Research: Methodology and Epistemological Foundations for Planning and Geography</td>
</tr>
<tr>
<td>PLA2000H</td>
<td>Advanced Planning Theory</td>
</tr>
<tr>
<td>PLA2001H</td>
<td>Planning Colloquium (Credit/No Credit)</td>
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Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PLA1108H</td>
<td>Communication in the Face of Power</td>
</tr>
<tr>
<td>JPG1120H</td>
<td>Advanced Qualitative Research: Methodology and Epistemological Foundations for Planning and Geography</td>
</tr>
<tr>
<td>JPG1130H</td>
<td>Qualitative Data Analysis: Coding, Interpreting, and Writing Qualitative Research</td>
</tr>
<tr>
<td>JPG1170H</td>
<td>Statistical Testing and Analysis</td>
</tr>
<tr>
<td>PLA1149H</td>
<td>Independent Study</td>
</tr>
<tr>
<td>PLA1150H</td>
<td>Planning Field Trip Course</td>
</tr>
<tr>
<td>JPG1400H</td>
<td>Advanced Quantitative Methods</td>
</tr>
<tr>
<td>JPG1416H</td>
<td>Environmental Consequences of Land Use Change</td>
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<tr>
<td>JPG1418H</td>
<td>Rural Land Use Planning</td>
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<tr>
<td>JGE1420H</td>
<td>Urban Waste Management: an International Perspective</td>
</tr>
<tr>
<td>JPG1426H</td>
<td>Natural Resources, Difference, and Conflict</td>
</tr>
<tr>
<td>JPG1428H</td>
<td>Greening the City: Urban Environmental Planning and Management</td>
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<tr>
<td>JPG1429H</td>
<td>Political Ecology of Food and Agriculture</td>
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<tr>
<td>JPG1502H</td>
<td>Global Urbanism and Cities of the Global South</td>
</tr>
<tr>
<td>JPG1503H</td>
<td>Space, Time, Revolution</td>
</tr>
<tr>
<td>JPG1504H</td>
<td>Institutionalism and Cities: Space, Governance, Property, and Power</td>
</tr>
<tr>
<td>JPG1506H</td>
<td>State/Space/Difference: Understanding the New Social Geography of the State</td>
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<tr>
<td>JPG1507H</td>
<td>Housing Markets and Housing Policy Analysis</td>
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<tr>
<td>PLA1510H</td>
<td>Special Topics in Planning</td>
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<tr>
<td>JPG1511H</td>
<td>The Commons: Geography, Planning, Politics</td>
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<td>JPG1512H</td>
<td>Place, Politics, and the Urban</td>
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<tr>
<td>JPG1513H</td>
<td>Toronto Urban Landscapes: Planning, Politics and Development</td>
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<tr>
<td>JPG1516H</td>
<td>Urban Problems</td>
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<tr>
<td>PLA1516H</td>
<td>Special Topics in Planning II</td>
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<tr>
<td>PLA1517H</td>
<td>Special Topics in Planning III</td>
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<tr>
<td>JPG1518H</td>
<td>Sustainability and Urban Communities</td>
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<tr>
<td>PLA1518H</td>
<td>City Building — Practice and Experience in Toronto and Other World Cities</td>
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<tr>
<td>PLA1519H</td>
<td>Planning and Governance</td>
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<td>JPG1520H</td>
<td>Contested Geographies of Class-Race Formations</td>
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<tr>
<td>PLA1520H</td>
<td>Project Management and Conflict Resolution for Planners</td>
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<tr>
<td>JPG1522H</td>
<td>Production of Space: Aesthetics, Technology, Politics</td>
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<tr>
<td>PLA1525H</td>
<td>Urban, Regional, and Community Economic Development</td>
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<td>PLA1551H</td>
<td>Policy Analysis</td>
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<td>PLA1552H</td>
<td>Management for Planners</td>
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<tr>
<td>JPG1554H</td>
<td>Transportation and Urban Form</td>
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<tr>
<td>JPG1558H</td>
<td>The History and Geography of Cycles and Cycling</td>
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<tr>
<td>PLA1601H</td>
<td>Environmental Planning in a Changing Climate</td>
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<td>JPG1605H</td>
<td>The Post-Industrial City</td>
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<td>JPG1615H</td>
<td>Planning and the Social Economy</td>
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<td>JPG1616H</td>
<td>The Cultural Economy</td>
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<tr>
<td>JPG1617H</td>
<td>Organization of Economies and Cities</td>
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<td>JPG1621H</td>
<td>Innovation and Governance</td>
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<td>PLA1650H</td>
<td>Urban Design: History Theory Criticism</td>
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<td>PLA1651H</td>
<td>Planning and Real Estate Development</td>
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<td>PLA1652H</td>
<td>Introductory Studio in Urban Design and Planning</td>
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<td>PLA1653H</td>
<td>Advanced Studio in Urban Design and Planning</td>
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<td>PLA1654H</td>
<td>Urban Design Research Methods</td>
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<td>PLA1655H</td>
<td>Urban Design and Development Controls</td>
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<td>PLA1656H</td>
<td>Land Use Planning: Principles and Practice</td>
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<td>JPG1660H</td>
<td>Regional Dynamics</td>
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<td>JPG1670H</td>
<td>Regional Economic Analysis</td>
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<td>PLA1702H</td>
<td>Pedestrians, Streets, and Public Space</td>
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<tr>
<td>PLA1703H</td>
<td>Transportation Planning and Infrastructure</td>
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<tr>
<td>JPG1706H</td>
<td>Violence and Security</td>
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<td>JPG1805H</td>
<td>Transnationalism, Diaspora, and Gender</td>
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<tr>
<td>GGR1807H</td>
<td>Geographies of Postcoloniality and Development: Exploring the 'Infrastructure Turn'</td>
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<td>JPG1809H</td>
<td>Spaces of Work: Value, Identity, Agency, Justice</td>
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<td>JPG1810H</td>
<td>Globalization and Postmodernism</td>
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<td>JPG1812Y</td>
<td>Planning for Change: Community Development in Practice</td>
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<td>JPG1813H</td>
<td>Social Planning and Policy</td>
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<td>JPG1814H</td>
<td>Cities and Immigrants</td>
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<td>JPG1816H</td>
<td>Geographies of Secularism and Islam</td>
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<td>JPG1817H</td>
<td>Geographies of Drug Use: History, Power, and Space</td>
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<td>JPG1818H</td>
<td>The Geography and Planning of Climate Action and Activism</td>
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<td>JPG1820H</td>
<td>Disability, Ableism, and Place</td>
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<td>Black Geographies of the Atlantic</td>
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<td>Place and Indigenous Research</td>
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<td>Utopia/Dystopia</td>
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<td>JPG1835H</td>
<td>Anti-Colonial Planning: Theory and Practice</td>
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<td>JPG1906H</td>
<td>Geographic Information Systems</td>
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<td>JPG1909H</td>
<td>Advanced Space-Time Data Analysis and Visualization</td>
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<td>JPG1914H</td>
<td>Geographic Information Systems Research Project (exclusion: GGR462H1)</td>
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<td>JPG2150H</td>
<td>Advanced Seminars in Selected Topics</td>
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<tr>
<td>JPG2151H</td>
<td>Advanced Seminars in Selected Topics II</td>
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<td>PLA4444H</td>
<td>Internship (Credit/No Credit) (Designates the internship to be undertaken by master’s students in the Planning program. It cannot be used to fulfill other course requirements for the degree.)</td>
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</table>
Germanic Languages and Literatures

Germanic Languages and Literatures: Introduction

Faculty Affiliation
Arts and Science

Degree Programs

Germanic Languages and Literatures

MA
- Fields:
  - German Literature, Culture and Theory;
  - Yiddish Studies

Germanic Literature, Culture and Theory

PhD
- Field:
  - Germanic Literature, Culture and Theory

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Book History and Print Culture**
  - Germanic Languages and Literatures, MA
  - Germanic Literature, Culture and Theory, PhD

- **Diaspora and Transnational Studies**
  - Germanic Languages and Literatures, MA
  - Germanic Literature, Culture and Theory, PhD

- **Jewish Studies**
  - Germanic Languages and Literatures, MA
  - Germanic Literature, Culture and Theory, PhD

- **Women and Gender Studies**
  - Germanic Languages and Literatures, MA
  - Germanic Literature, Culture and Theory, PhD

Overview

The Department of Germanic Languages and Literatures at the University of Toronto is the oldest and largest department of German in Canada encompassing 11 full-time faculty who contribute to a curriculum that speaks to our traditional strength in literary and intellectual history. Our faculty and students conduct research in German cinema, critical theory, language pedagogy, Yiddish studies, medieval studies, travel literature, as well as post-colonial, psychoanalytic, and transnational studies.

Past graduates have secured tenure-track teaching positions as well as employment in the arts, in cultural programming, the publishing industry, and educational administration. We are committed to providing our graduate students with exposure to a diversity of methodological approaches among our faculty and those of affiliate units. We also emphasize early progress towards professionalization through participation in faculty research projects, attendance at local and international conferences, and enrolment in campus writing workshops. We cultivate a departmental climate of mutual respect and collegiality in the shared pursuit of critical inquiry.

The department offers a graduate program of study leading to two degrees: Master of Arts and Doctor of Philosophy. The MA degree usually takes eight months (September to April) to complete, while the PhD degree is normally completed in four to five years.

Contact and Address

Web: german.utoronto.ca
Email: german@chass.utoronto.ca
Telephone: (416) 926-2321
Fax: (416) 926-2329

Department of Germanic Languages and Literatures
3rd Floor, 50 St. Joseph Street
University of Toronto
Toronto, Ontario M5S 1J4
Canada

Germanic Languages and Literatures: Graduate Faculty

Full Members

Fenner, Angelica - BA, MA, PhD (*Graduate Coordinator*)
Goetschel, Willi - PhD
Lehleiter, Christine - MA, PhD
Noyes, John - BA, MA, PhD
Shternshis, Anna - MA, PhD
Soldovieri, Stefan - BA, MA, PhD (*Chair and Graduate Chair*)
Stock, Markus - MA, PhD
Zilcosky, John - BA, MA, MA, PhD

Associate Members

Bergen, Doris - MA, PhD
Budde, Antje - PhD
Clark, Caryl - BMus, MA, PhD
Cohen, Adam - PhD
Comay, Rebecca - BA, MA, PhD
DiCenso, James - BA, MA, PhD
Esterhammer, Angela - BA, PhD
Gibbs, Robert - BA, MA, PhD
Jenkins, Jennifer - BA, MA, PhD
Kaplan, Louis - AB, AM, DPhil
Kim, Hang-Sun - AB, MA, PhD
Lahusen, Thomas - MA, PhD
Levy, Evonne - MFA, PhD
Retaillack, James - BA, DPhil
Revermann, Martin - PhD
Seidman, Naomi - PhD
Wittmann, Rebecca - AB, MA, PhD
Germanic Languages and Literatures: 
Germanic Languages and Literatures MA

Master of Arts

Program Description

The MA degree in Germanic Languages and Literatures is offered in two fields:

• German Literature, Culture and Theory
• Yiddish Studies

The course-based, one-year MA program normally spans two sessions. Students have the option to concurrently enrol in one of the collaborative specializations at U of T, such as Women and Gender Studies, Jewish Studies, Transnational and Diaspora Studies, or Book History and Print Culture. This also requires registration in their respective core course(s). The MA in German is a full-time program, but may also be taken part-time under extenuating circumstances. Graduates may continue on to doctoral studies as well as embarking on careers in translation, language teaching, literary editing, cultural programming, and corporate and administrative positions requiring advanced communication and analytical skills.

Field: German Literature, Culture and Theory

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Germanic Languages and Literatures' additional admission requirements stated below.
• Applicants to the one-year MA program in the field of German Literature, Culture and Theory must have completed an appropriate bachelor's degree from a recognized university that includes at least 6.0 full-course equivalents (FCEs) in German language, literature, and culture, with an average grade of at least a B+.
• Two reference letters.
• Admission is based upon the applicant's academic record as evidenced through transcripts from all post-secondary institutions, the reference letters, a sample of written work (such as a term paper), and a Letter of Intent (500-word maximum) identifying current career goals and areas of academic interest.

Program Requirements

• Coursework. Students must successfully complete a total of 3.5 full-course equivalents (FCEs) including:
  o GER1000H German Studies Seminar: Culture, Theory, Text (0.5 FCE)
  o the remaining course selection which is made in consultation with the Associate Chair of Graduate Studies of the department and must be approved by the department.
• Pass a German language competence test at the beginning of the program. Only one attempt is permitted.

Program Length

2 sessions full-time (typical registration sequence: F/W);
5 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Field: Yiddish Studies

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Germanic Languages and Literatures' additional admission requirements stated below.
• Applicants to the one-year MA program in the field of Yiddish Studies must have completed an appropriate bachelor's degree from a recognized university that includes at least 2.0 full-course equivalents (FCEs) in Yiddish language and 2.0 FCEs in Yiddish literature and culture or another area of Jewish Studies, with an average grade of at least a B+.
• Two reference letters.
• Admission is based upon the applicant's academic record and upon the evidence of the reference letters.

Program Requirements

• Coursework. Students must successfully complete a total of 3.5 full-course equivalents (FCEs) including:
  o GER1000H German Studies Seminar: Culture, Theory, Text (0.5 FCE)
  o CJS1000H Core Methods Seminar in Jewish Studies (0.5 FCE)
  o GER1050H Methods and Texts in Yiddish Studies (0.5 FCE)
  o GER2050Y Research Paper in Yiddish Studies (1.0 FCE)
  o the remaining elective courses (1.0 FCE) selected from a course list approved by the department.
• Pass a Yiddish language competency test at the beginning of the program. Only one attempt is permitted.

Program Length

2 sessions full-time (typical registration sequence: F/W);
5 sessions part-time
Time Limit

3 years full-time; 6 years part-time

Germanic Languages and Literatures: Germanic Literature, Culture and Theory
PhD

Doctor of Philosophy

Program Description

The PhD program in Germanic Literature, Culture, and Theory is taken on a full-time basis and is fully funded for five years. The curriculum engages debates and questions salient to the discipline of German Studies while also forging generative ties with other disciplines to facilitate a synthesis of history and theory, textual analysis, and cultural study. Students have the option to concurrently enrol in one of the collaborative specializations at U of T, such as Women and Gender Studies, Jewish Studies, Transnational and Diaspora Studies, or Book History and Print Culture. This also requires registration in their respective core course(s).

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master’s degree or 2) direct entry following completion of an appropriate bachelor’s degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Germanic Languages and Literatures’ additional admission requirements stated below.
- Admission to the PhD program requires an appropriate master's degree in German from a recognized university, with an average grade equivalent to at least a University of Toronto A– in the applicant's overall program.
- Applicants must satisfy the department that they are capable of independent research in German at an advanced level.
- Three reference letters.
- Admission is based upon the applicant’s academic record, a writing sample, a Letter of Intent (500-word maximum), and the evidence of the reference letters.

Program Requirements

- Coursework. Applicants admitted on the basis of a master's degree must take a minimum of 4.0 full-course equivalents (FCEs) including:
  - GER1000H German Studies Seminar: Culture, Theory, Text (0.5 FCE) with an average grade of at least an A–.
  - At least 3.5 FCEs by the end of Year 1.
  - Any remaining courses required for the degree by the end of Year 2. Course selection may include 1.5 FCEs in a department other than Germanic Languages and Literatures.
  - Course selection is made in consultation with the Associate Chair of Graduate Studies of the department and must be approved by the department.
- Students must provide evidence of reading knowledge of French or, in exceptional circumstances, of another language approved by the department.
- Students must pass a qualifying examination with written and oral components in the second session of Year 2 of the PhD program. The qualifying examination has two components:
  - The proficiency exam is based on a student-created and committee-approved, comprehensive list of works and entails writing exams in four (4) epochs (three for the Yiddish field), followed by an oral exam.
  - The research field paper on a topic approved by the examination committee offers a means to explore key theoretical readings and test firsthand the traction of at least one central methodology pertinent to the future thesis. This paper, between 25 and 30 pages in length, is completed during the Summer session following the proficiency examination and strives towards publishable quality.
- The thesis proposal encompasses an abstract, literature review, detailed discussion of the methodology, tentative chapter outlines, and bibliography/mediagraphy.
- Students must pass a thesis proposal review under the guidance of their supervisory committee, whose members will read the proposal, and approve the examinee for doctoral candidacy.
- Students must deliver a departmental lecture on their dissertation topic within one year following the thesis proposal review.
- Students must submit the doctoral thesis and successfully complete the Final Oral Examination.
- The department may permit a candidate to write the doctoral thesis in German when the candidate’s advisory committee so recommends and when the candidate has satisfied the School of Graduate Studies’ conditions (see 12.1.2.8 Thesis section in Degree Regulations, Doctor of Philosophy).

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Germanic Languages and Literatures’ additional admission requirements stated below.
• Admission to the PhD program requires an appropriate bachelor's degree from a recognized university that includes at least 6.0 full-course equivalents (FCEs) in German language, literature, and culture, with an average grade equivalent to at least a University of Toronto B+ in the applicant's overall program and of at least an A– in the applicant's German courses.
• Applicants must satisfy the department that they are capable of independent research in German at an advanced level.
• Three reference letters.
• Admission is based upon the applicant's academic record, a writing sample, a Letter of Intent (500-word maximum), and the evidence of the reference letters.

Program Requirements

• Coursework. Applicants admitted on the basis of a bachelor's degree must take a minimum of 7.0 full-course equivalents (FCEs), including:
  o GER1000H German Studies Seminar: Culture, Theory, Text (0.5 FCE) with an average grade of at least an A–.
  o The department may recommend to the School of Graduate Studies the termination of the registration and eligibility of a student who fails to complete at least 3.5 FCEs, with an average of at least an A–, during Year 1.
  o The remaining courses required for the degree, with an A– average, by the end of Year 2.
• Students must provide evidence of reading knowledge of French or, in exceptional circumstances, of another language approved by the department.
• Students must pass a qualifying examination with written and oral components in the second session of Year 3 of the PhD program. The qualifying examination has two components:
  o The proficiency exam is based on a student-created and committee-approved, comprehensive list of works and entails writing exams in four (4) epochs (three for the Yiddish field), followed by an oral exam.
  o The research field paper on an approved topic approved by the examination committee offers a means to explore key theoretical readings and test firsthand the traction of at least one central methodology pertinent to the future thesis. This paper, between 25 and 30 pages in length, is completed during the Summer session following the proficiency examination and strives towards publishable quality.
• The thesis proposal encompasses an abstract, literature review, detailed discussion of the methodology, tentative chapter outlines, and bibliography/mediagraphy.
• Students must pass a thesis proposal review under the guidance of their supervisory committee, whose members will read the proposal and approve the examinee for doctoral candidacy.
• Students must deliver a departmental lecture on their dissertation topic within one year following the thesis proposal review.
• Students must submit the doctoral thesis and successfully complete the Final Oral Examination.
• The department may permit a candidate to write the doctoral thesis in German when the candidate's advisory committee so recommends and when the candidate has satisfied the School of Graduate Studies' conditions (see 12.1.2.8 Thesis section in Degree Regulations, Doctor of Philosophy).

Program Length

5 years

Time Limit

7 years

Germanic Languages and Literatures: Germanic Languages and Literatures MA and Germanic Literature, Culture and Theory PhD Courses

Not all courses are offered every year. The department should be consulted each session as to actual course offerings.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER1000H</td>
<td>German Studies Seminar: Culture, Theory, Text</td>
</tr>
<tr>
<td>GER1050H</td>
<td>Methods and Texts in Yiddish Studies</td>
</tr>
<tr>
<td>GER1051Y</td>
<td>Yiddish Language and Literature for German Speakers</td>
</tr>
<tr>
<td>GER1200H</td>
<td>Middle High German</td>
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<td>GER1210H</td>
<td>Medieval German Romance: Tristan und Isolde</td>
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<td>GER1480H</td>
<td>Goethe’s Faust</td>
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<tr>
<td>GER1485H</td>
<td>Goethe’s Novels</td>
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<td>GER1490H</td>
<td>Topics in German Literary Studies</td>
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<td>GER1491H</td>
<td>The Poetics of Madness</td>
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<td>GER1505H</td>
<td>Romanticism</td>
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<tr>
<td>GER1540H</td>
<td>Revolutions</td>
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<tr>
<td>GER1550H</td>
<td>Origins: Myths of Beginning in German Literature and Thought</td>
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<tr>
<td>GER1661H</td>
<td>Modernism in Context</td>
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<tr>
<td>GER1680H</td>
<td>Earth Readings</td>
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<td>GER1690H</td>
<td>Theatre in the Weimar Republic</td>
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<td>GER1722H</td>
<td>Kafka</td>
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<td>GER1730H</td>
<td>Travel Writing</td>
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<td>GER1740H</td>
<td>Searching for Sebald: Literature, Trauma, Memory in the Works of W.G. Sebald</td>
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<td>GER1742H</td>
<td>Geistesgeschichte: A History of Ideas from Kant to Freud</td>
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<td>GER1752H</td>
<td>Colonialism and After in German Literature</td>
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<td>GER1770H</td>
<td>Reviewing the 50s: German Cinemas under Reconstruction</td>
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<td>GER1780H</td>
<td>Topics in German Visual Culture</td>
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<td>GER1785H</td>
<td>Remaking the Movies in German Cinemas</td>
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<td>GER1820H</td>
<td>The Learning and Teaching of German</td>
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<td>GER1860H</td>
<td>Introduction to Critical Theory</td>
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<td>GER1880H</td>
<td>Gottfried Keller and the Politics of Poetic Realism in a Minor Key</td>
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<td>GER2000H</td>
<td>Reading Course in Approved Field</td>
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<td>GER2000Y</td>
<td>Reading Course in Approved Field</td>
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<td>GER2050Y</td>
<td>Research Paper in Yiddish Studies</td>
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<tr>
<td>GER2051H</td>
<td>Topics in Yiddish or German-Jewish Studies</td>
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<tr>
<td>GER3000H</td>
<td>Current Trends in German and Yiddish Literature and Film</td>
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<tr>
<td>GER6000H</td>
<td>Reading German for Graduate Students</td>
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<td>JGC1660H</td>
<td>Modernism and the Other</td>
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<tr>
<td>JGC1740H</td>
<td>Humans and Things</td>
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<tr>
<td>JGC1855H</td>
<td>Critical Theory in Context: The French-German Connection</td>
</tr>
<tr>
<td>JGF1733H</td>
<td>Autobiographical Documentary: History, Alterity, and Performativity</td>
</tr>
</tbody>
</table>
Global Affairs and Public Policy

Global Affairs and Public Policy: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Global Affairs

MGA

- Emphases:
  - Development;
  - Global Justice and Human Rights;
  - Global Policy;
  - Global Security;
  - Innovation Policy;
  - Markets;
  - The Digital World

- Dual Degree Programs:
  - MGA (University of Toronto) / MIA (Hertie School of Governance, Berlin);
  - MGA (University of Toronto) / MPA (London School of Economics, London);
  - MGA (University of Toronto) / MPP (Sciences Po, Paris)

Public Policy

MPP

- Emphases:
  - Economics for Public Policy;
  - Public and Non-Profit Management and Administration;
  - Social and Urban Policy

Combined Degree Programs

- STG, Law, JD / MGA
- STG, Law, JD / MPP
- STG, Management, MBA / MGA

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Contemporary East and Southeast Asian Studies
  - Global Affairs, MGA
  - Public Policy, MPP

- Environmental Studies
  - Global Affairs, MGA
  - Public Policy, MPP

- Ethnic, Immigration and Pluralism Studies
  - Global Affairs, MGA
  - Public Policy, MPP

- Public Health Policy
  - Global Affairs, MGA
  - Public Policy, MPP

- Sexual Diversity Studies
  - Public Policy, MPP

Overview

The Master of Global Affairs (MGA) program is a two-year professional program that equips students with a sophisticated understanding of the larger political, economic, and social contexts of global affairs and with the skills necessary to work strategically and effectively within the evolving global system. Focused on five pillars of Global Security, Global Development, Global Justice and Human Rights, Global Markets, and Innovation Policy, students will gain the tools needed to have a real-world impact.

The Munk School's prestigious Master of Public Policy (MPP) brings together an impressive array of students and faculty for a two-year, full time program that bridges Canadian and global policy. In addition to a paid summer internship and a wide range of career support services, students develop core competencies considered essential for policy practice and take electives from both within the Munk School and in the broader University. Visiting public sector leaders along with a renowned multidisciplinary faculty bridge theory and real-world experience, providing contact with senior professionals in government and the broader public, private, and community sectors. Students may also apply to the combined JD/MPP degree program as well as pursue collaborative specializations with other graduate departments.

A Munk School education, located in the heart of downtown Toronto and in close proximity to an extraordinary concentration of policy leaders, will empower students to achieve their professional and personal goals.

Contact and Address

Web: munkschool.utoronto.ca/mga
Email: mga@utoronto.ca
Telephone: (416) 946-8917
Fax: (416) 946-8915

Munk School of Global Affairs and Public Policy
University of Toronto
315 Bloor Street West
Toronto, Ontario M5S 0A7
Canada

Web: munkschool.utoronto.ca/publicpolicy
Email: public.policy@utoronto.ca
Telephone: (416) 978-5120
Fax: (416) 978-5079

Master of Public Policy Program
University of Toronto
Canadiana Gallery
Third Floor, 14 Queen’s Park Crescent West
Toronto, Ontario M5S 3K9
Canada
Global Affairs and Public Policy: Graduate Faculty

Full Members

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Bertoldi, Nancy - BA, MA, PhD
Blimpo, Moussa Pougouinimo - AM, PhD
Breznitz, Dan - BA, PhD
Breznitz, Shiri - BA, MA, PhD
Cody, Francis - PhD
Craft, Jonathan - MA, PhD
Deibert, Ronald - BA, MA, PhD
Donnelly, Michael - BA, MSS, DrRerPol
Eli, Shari - BA, PhD
Frazer, Garth - BE, BM, MPH, MA, PhD
Fu, Diana Xuan - BA, MPH, PhD
Garcia Montoya, Laura - MA, PhD
Hall, Jonathan - BA, PhD
Hansen, Randall - BA, MPH, PhD, CRC
Heath, Joseph - BA, MA, PhD, FRSC
Heblich, Stephan - PhD
Kasekamp, Andres - PhD
Katz, Larissa - BA, LLB, LLM, SJD, CRC
Kemeny, Tom - BCom, MES, PhD
Kroft, Kory - BA, MA, PhD
Lam, Tong - BSc, MA, PhD
Levi, Ron - BCL, LLB, LLM, SJD
Lipsy, Phillip - PhD
Loewen, Peter - PhD (Director)
Manger, Mark - DrRerPol
McGahan, Anita - BA, MA, MBA, PhD
Ong, Lynette - BA, AM, PhD
Ornston, Darius - BA, MA, PhD
Pauly, Louis - BA, MA, MSc, MSc, PhD, CRC, FRSC
Peng, Ito - BSW, BSc, MA, PhD
Pritchard, Wilson R.S. - BA, MPH, DPhil
Robinson, John - BA, BA, MES, MES, PhD, PhD
Shachar, Ayelet - LLB, BA, LLM, SJD
Stein, Janice - BA, MA, PhD, OC, FRSC
White, Linda - BA, MA, PhD
Wolfe, David - BA, MA, PhD
Wong, Joseph - BA, MA, PhD, CRC
Wu, Yiching - BA, MA, MA, PhD
Zuberi, Daniyal - BA, MSc, PhD

Associate Members

Austin, Robert - BA, MA, PhD
Eidelman, Gabriel - MA, DrRerPol
Hejazi, Walid - BA, MA, PhD
Indart, Gustavo - BA, MA, PhD
Kijima, Rie - BA, MA, PhD
Kramarz, Teresa - MSc, PhD
Mason, Janet - BAO
Radner, James - AB, MPH
Rahr, Alexandra - BA, MA, PhD
Salardi, Paola - DPhil
Triadafilopoulos, Triadafilos - BA, MA, PhD

Global Affairs and Public Policy: Global Affairs MGA

Master of Global Affairs

Program Description

The Master of Global Affairs (MGA) is a two-year professional program, consisting of four sessions of coursework and a compulsory summer internship. The purpose of this program is to provide an outstanding professional, multidisciplinary education to train the next generation of global leaders of international institutions, global civil society, and business. This program is open to applicants from all disciplinary backgrounds.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Munk School of Global Affairs and Public Policy's additional admission requirements stated below.
- An appropriate bachelor's degree with a minimum standing in the final year equivalent to at least a University of Toronto B+.

Program Requirements

This is a two-year program taken on a full-time basis over 20 consecutive months. Students must successfully complete a total of 9.0 full-course equivalents (FCEs) as follows.

Year 1:

- 3.5 FCEs in core courses (seven half courses).
- 1.0 FCE in elective courses. Of these, 0.5 FCE must be chosen from the following: GLA2027H Ethics and Global Affairs, GLA2029H The Sustainability Imperative: Implications for Global Affairs and Public Policy, or GLA2034H Decision Making and Strategic Thinking.
- At the end of Year 1, students must declare an emphasis as part of their degree program. They must complete 1.5 FCEs of coursework in order to successfully complete the emphasis; see details on the emphases below. Students who take part in an exchange are exempt from this requirement.
  - Students who elect to complete both an exchange and an emphasis may apply up to 1.0 FCE in exchange courses towards their emphasis, with approval of the director of the professional master’s programs.

Summer session between Years 1 and 2:

- GLA1007Y Global Internship (1.0 FCE).

Year 2:

- 1.0 FCE in core courses: GLA2000H Capstone Seminar and GLA2111H Research Methods for Capstone.
- Additional 2.5 elective FCEs (five half courses) at the 2000 level from the Munk School. A maximum of 1.0 FCE may be taken from graduate programs outside the Munk School.
Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

Global Affairs and Public Policy: Global Affairs MGA Emphases

Emphasis: Development

MGA students who wish to complete an emphasis in Development must successfully complete 1.5 full-course equivalents (FCEs) from the following list:

GLA2002H; GLA2014H; GLA2019H; GLA2028H; GLA2060H; GLA2061H; GLA2062H; JCR1000Y.

Emphasis: Global Justice and Human Rights

MGA students who wish to complete an emphasis in Global Justice and Human Rights must successfully complete 1.5 full-course equivalents (FCEs) from the following list:

GLA2013H; GLA2023H; GLA2066H; GLA2067H; GLA2068H.

Emphasis: Global Policy

MGA students who wish to complete an emphasis in Global Policy must successfully complete 1.5 full-course equivalents (FCEs) from the following list:

ASI4140H; ASI4900H; ERE1161H; ERE1170H; ERE1175H; ERE1988H; GLA2011H; GLA2015H; GLA2056H; GLA2096H; GLA2097H; GLA2098H.

Emphasis: Global Security

MGA students who wish to complete an emphasis in Global Security must successfully complete 1.5 full-course equivalents (FCEs) from the following list:

GLA2010H; GLA2024H; GLA2030H; GLA2063H; GLA2064H; GLA2065H.

Emphasis: Innovation Policy

MGA students who wish to complete an emphasis in Innovation Policy must successfully complete 1.5 full-course equivalents (FCEs) from the following list:

GLA2014H; GLA2018H; GLA2021H; GLA2080H; GLA2081H; GLA2082H.

Emphasis: Markets

MGA students who wish to complete an emphasis in Markets must successfully complete 1.5 full-course equivalents (FCEs) from the following list:

GLA2001H; GLA2006H; GLA2012H; GLA2015H; GLA2025H; GLA2037H; GLA2069H; GLA2070H; GLA2071H.

Emphasis: The Digital World

MGA students who wish to complete an emphasis in The Digital World successfully complete 1.5 full-course equivalents (FCEs) from the following list:

GLA2010H; GLA2024H; GLA2041H; GLA2042H; GLA2043H; GLA2052H.

Global Affairs and Public Policy: Global Affairs MGA (Dual Degree: MGA / MIA Hertie School of Governance)

Dual Degree Program: Master of Global Affairs (University of Toronto) / Master of International Affairs (Hertie School of Governance)

Program Description

This dual degree program creates a pathway between the U of T Master of Global Affairs and the Hertie School Master of International Affairs (MIA) programs. In Year 1, students complete MIA coursework at the Hertie School of Governance in Berlin, Germany. In the Summer session of Year 1, students complete an internship that is part of the MGA and MIA degree programs. In Year 2, students complete MGA coursework in Toronto and in the final Summer session, complete a master's thesis as part of the dual degree requirements.

Students will gain both degrees in two years (24 months) rather than the four years it would take to acquire the degrees consecutively. The pattern of registration is F/W/S/F/W/S with students completing both programs in August of Year 2. This dual degree program is open to applicants from all disciplinary backgrounds.

Contact

Master of Global Affairs / Master of International Affairs Program
Web: munkschool.utoronto.ca/mga/dual-degree-hertie-school-berlin

Master of Global Affairs Program
Munk School of Global Affairs and Public Policy, University of Toronto
Email: mga@utoronto.ca

Master of International Affairs Program
Hertie School of Governance
Email: grad-admissions@hertie-school.org
Application Process

- Applicants must apply through the Hertie School admissions website. Applicants are then jointly selected and admitted by the MGA at the University of Toronto and the MIA at the Hertie School. All applicants must complete the Hertie School online admissions application.
- All applicants who are admitted to the dual degree program must then also complete the application on U of T’s School of Graduate Studies online admissions application system.

Minimum Admission Requirements

- Applicants must meet the admission requirements of both programs to be admitted to the dual degree. The MGA admission requirements are stated below.
- Applicants are admitted under the General Regulations of the School of Graduate Studies of the University of Toronto as well as the specific requirements of the MGA.
- An appropriate bachelor's degree with a standing in the final year equivalent to at least a U of T B+.
- Applicants whose primary language is not English and who graduated from a university where the primary language of instruction is not English must provide proof of English-language proficiency. The following tests and scores will be accepted:
  - Test of English as a Foreign Language (TOEFL): 100/120 overall;
  - International English Language Testing System (IELTS): 7, with at least 6.0 for each component.

Program Requirements

During their U of T registration in the MGA program, students must successfully complete a total of **7.0 full-course equivalents (FCEs)** as follows.

**Year 1**

- **Fall and Winter:** Students complete Year 1 courses at the Hertie School.
- **Summer:** GLA1007Y *Global Internship* (1.0 FCE, 12 weeks) plus a critical reflection paper to be submitted in September of Year 2.

**Year 2**

- **Fall and Winter (5.0 FCEs):**
  - GLA1011H *Global Innovation Policy* (0.5 FCE).
  - GLA1014H *Global Development* (0.5 FCE).
  - GLA2000H *Capstone Seminar* (0.5 FCE).
  - GLA2111H *Research Methods for Capstone* (0.5 FCE).
  - GLA2887H *Final Research and Analysis* (0.5 FCE).
  - 2.5 elective FCEs (five half courses) at the 2000 level within the MGA program.
- **Summer (1.0 FCE):** GLA2889Y *Dual Degree Master’s Thesis* (Credit/No Credit).

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the dual degree program’s additional admission requirements stated below.
- An appropriate bachelor's degree with a standing in the final year equivalent to at least a University of Toronto B+, and a cumulative standing equivalent to at least a University of Toronto mid-B.
- Applicants whose primary language is not English and who graduated from a university where the primary language of instruction is not English must provide proof of English-language proficiency. The following tests and scores will be accepted:
  - Test of English as a Foreign Language (TOEFL) Internet-Based Test (iBT): 100/120 overall;
  - International English Language Testing System (IELTS): 7, with at least 6.5 for each component.

Program Requirements

During their U of T registration in the MGA program, students must successfully complete a total of 7.0 full-course equivalents (FCEs).

Year 1

- **Fall and Winter**: Students complete Year 1 courses at the London School of Economics.
- **Summer (1.0 FCE)**: GLA1007Y Global Internship (10 to 16 weeks) plus a critical reflection paper to be submitted in September of Year 2.

Year 2

- **Fall and Winter (5.0 FCEs)**:
  - GLA1011H Global Innovation Policy (0.5 FCE).
  - GLA1016H Global Justice and Human Rights (0.5 FCE).
  - GLA2000H Capstone Seminar (0.5 FCE).
  - GLA2111H Research Methods for Capstone (0.5 FCE).
  - GLA2887H Final Research and Analysis (0.5 FCE).
  - 2.5 elective FCEs (five half courses) at the 2000 level within the MGA program.
- **Summer (1.0 FCE)**:
  - GLA2890Y Global Policy Review.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)
• An appropriate bachelor's degree with a standing in the final year equivalent to at least a U of T B+, and a cumulative standing equivalent to at least a U of T mid-B.
• Applicants whose primary language is not English and who graduated from a university where the primary language of instruction is not English must provide proof of English-language proficiency. The following tests and scores will be accepted:
  o Test of English as a Foreign Language (TOEFL): 100/120 overall;
  o International English language Testing System (IELTS): 7, with at least 6.5 for each component.
• Proof of French-language proficiency is also necessary if the French track is chosen at Sciences Po. Please consult the Sciences Po website for details.

Program Requirements
During their U of T registration in the MGA program, students must successfully complete a total of 7.0 full-course equivalents (FCEs) as follows.

Year 1
• Fall and Winter: Students complete Year 1 courses at Sciences Po.
• Summer (1.0 FCE): GLA1007Y Global Internship (12 weeks) plus a critical reflection paper to be submitted in September of Year 2.

Year 2
• Fall and Winter (5.0 FCEs):
  o GLA1001H Macroeconomics: Markets, Institutions, and Growth (0.5 FCE).
  o GLA1003H Global Security (0.5 FCE).
  o GLA1011H Global Innovation Policy (0.5 FCE).
  o GLA1014H Global Development (0.5 FCE).
  o GLA1016H Global Justice and Human Rights (0.5 FCE).
  o GLA2000H Capstone Seminar (0.5 FCE).
  o GLA2111H Research Methods for Capstone (0.5 FCE).
  o GLA2887H Final Research and Analysis (0.5 FCE).
  o 1.0 elective FCE (two half courses) at the 2000 level, taken at the Munk School.
• Summer (1.0 FCE): GLA2890Y Global Policy Review.

Program Length
6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Global Affairs and Public Policy: Global Affairs MGA Courses
Year 1
Core Courses (Required)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>GLA1001H</td>
<td>Macroeconomics: Markets, Institutions, and Growth</td>
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<tr>
<td>GLA1003H</td>
<td>Global Security</td>
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<tr>
<td>GLA1010H</td>
<td>Microeconomics for Global Affairs</td>
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<td>GLA1011H</td>
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<td>GLA1012H</td>
<td>Statistics for Global Affairs</td>
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<tr>
<td>GLA1014H</td>
<td>Global Development</td>
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<tr>
<td>GLA1016H</td>
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<td>GLA1007Y</td>
<td>Global Internship</td>
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Elective Courses (Subject to Change)

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<tr>
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<td>ASI4900H</td>
<td>Special Topics in Contemporary Asian Studies</td>
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<tr>
<td>ERE1161H</td>
<td>Topics in Russian and Eurasian Studies</td>
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<tr>
<td>ERE1170H</td>
<td>Conflicts and Para-States in the European Union's Backyard</td>
</tr>
<tr>
<td>ERE1175H</td>
<td>One Hundred Years of Cultures of Refugees in Europe, 1920-2020</td>
</tr>
<tr>
<td>ERE1998H</td>
<td>Reading and Research I</td>
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<tr>
<td>GLA1013H</td>
<td>Logic of Global Inquiry</td>
</tr>
<tr>
<td>GLA2001H</td>
<td>Global Capital Markets and Global Strategies</td>
</tr>
<tr>
<td>GLA2002H</td>
<td>Issues in Development Policy and Practice</td>
</tr>
<tr>
<td>GLA2006H</td>
<td>The Global Political Economy of Finance and Investment</td>
</tr>
<tr>
<td>GLA2007H</td>
<td>Global Affairs Externship (Credit/No Credit)</td>
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<tr>
<td>GLA2010H</td>
<td>Citizen Lab Intensive Seminar</td>
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<tr>
<td>GLA2012H</td>
<td>The Global Political Economy of Trade</td>
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<tr>
<td>GLA2013H</td>
<td>Topics in Global Violence</td>
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<tr>
<td>GLA2014H</td>
<td>Innovation and Economic Development</td>
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<tr>
<td>GLA2015H</td>
<td>The Political Economy of the Welfare State</td>
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<tr>
<td>GLA2018H</td>
<td>Innovation and the City</td>
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<tr>
<td>GLA2019H</td>
<td>The Political Economy of Development</td>
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<tr>
<td>GLA2021H</td>
<td>Innovation, Institutions, Governments, and Growth</td>
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<tr>
<td>GLA2023H</td>
<td>Justice Reforms in Global Context</td>
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<tr>
<td>GLA2024H</td>
<td>Intelligence and Cybersecurity in Global Politics</td>
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<td>GLA2025H</td>
<td>Global Affairs Lab</td>
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<tr>
<td>GLA2027H</td>
<td>Ethics and Global Affairs</td>
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<tr>
<td>GLA2028H</td>
<td>Global Civil Society</td>
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<tr>
<td>GLA2029H</td>
<td>The Sustainability Imperative: Implications for Global Affairs and Public Policy</td>
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<tr>
<td>GLA2030H</td>
<td>Grand Strategy and Global Threats</td>
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<tr>
<td>GLA2034H</td>
<td>Decision Making and Strategic Thinking</td>
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<tr>
<td>GLA2035H</td>
<td>International Legal Challenges</td>
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<tr>
<td>GLA2036H</td>
<td>Bilateral Diplomacy: Canada-Japan and US-Japan Relations</td>
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<tr>
<td>GLA2037H</td>
<td>Financial Management for Global Organizations</td>
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<tr>
<td>GLA2041H</td>
<td>Topics in the Digital World I</td>
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<tr>
<td>GLA2042H</td>
<td>Topics in the Digital World II</td>
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<tr>
<td>GLA2043H</td>
<td>Topics in the Digital World III</td>
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<tr>
<td>GLA2044H</td>
<td>Topics in Global Policy and Asia I</td>
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<tr>
<td>GLA2045H</td>
<td>Topics in Global Policy and Asia II</td>
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<tr>
<td>GLA2046H</td>
<td>Topics in Global Policy and Asia III</td>
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<tr>
<td>GLA2050H</td>
<td>Selected Topics in International Studies</td>
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<tr>
<td>GLA2052H</td>
<td>The Digital Platform Economy</td>
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<tr>
<td>GLA2056H</td>
<td>The Populist Radical Right</td>
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<tr>
<td>GLA2060H</td>
<td>Topics in Development I</td>
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<td>GLA2061H</td>
<td>Topics in Development II</td>
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<tr>
<td>GLA2062H</td>
<td>Topics in Development III</td>
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<td>GLA2063H</td>
<td>Topics in Security I</td>
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<tr>
<td>GLA2064H</td>
<td>Topics in Security II</td>
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<tr>
<td>GLA2065H</td>
<td>Topics in Security III</td>
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<td>GLA2066H</td>
<td>Topics in Justice I</td>
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<tr>
<td>GLA2067H</td>
<td>Topics in Justice II</td>
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<tr>
<td>GLA2068H</td>
<td>Topics in Justice III</td>
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<td>GLA2069H</td>
<td>Topics in Markets I</td>
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<td>GLA2070H</td>
<td>Topics in Markets II</td>
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<td>GLA2082H</td>
<td>Topics in Innovation III</td>
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<td>GLA2090H</td>
<td>Topics in Global Affairs I</td>
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<tr>
<td>GLA2093H</td>
<td>Topics in Global Affairs IV</td>
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<tr>
<td>GLA2095H</td>
<td>MGA Reading Course</td>
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<tr>
<td>GLA2096H</td>
<td>Topics in Global Policy I</td>
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<tr>
<td>GLA2097H</td>
<td>Topics in Global Policy II</td>
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<tr>
<td>GLA2098H</td>
<td>Topics in Global Policy III</td>
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<tr>
<td>GLA2888H</td>
<td>MGA Research Paper</td>
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<tr>
<td>JCR1000Y</td>
<td>An Interdisciplinary Approach to Addressing Global Challenges</td>
</tr>
<tr>
<td>JSE1708H</td>
<td>Sustainability and the Western Mind</td>
</tr>
</tbody>
</table>

**Global Affairs and Public Policy: Public Policy MPP**

**Master of Public Policy**

**Program Description**

The Munk School's prestigious Master of Public Policy (MPP) brings together an impressive array of students and faculty for a two-year, full-time program that bridges Canadian and global policy.
In addition to a paid summer internship and a wide range of career support services, students develop core competencies considered essential for policy practice and take electives from both within the Munk School and in the broader University.

Visiting public sector leaders along with a renowned multidisciplinary faculty bridge theory and real-world experience, providing contact with senior professionals in government and the broader public, private, and community sectors.

Students may also apply to the combined degree program Juris Doctor (JD) / Master of Public Policy (MPP) as well as pursue collaborative specializations with other graduate departments. A Munk School education, located in the heart of downtown Toronto and in close proximity to an extraordinary concentration of policy leaders, will empower students to achieve their professional and personal goals.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the School of Public Policy and Governance’s additional admission requirements stated below.
- A four-year bachelor’s degree (or equivalent as recognized by the University of Toronto).
- A minimum cumulative grade point average (CGPA) of a B and a minimum GPA of a B+ standing in the final year of undergraduate studies (3.3 out of a possible 4.0 grading scale). Admissions selection to the MPP program is competitive and meeting this minimum requirement does not guarantee admission. Final-year grades are based on the last 5.0 full-course equivalents (FCEs) or 10.0 half-course equivalents.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- International applicants must submit a Graduate Record Examination (GRE) (general) score.
- International applicants must also submit a translation of transcripts from non-English speaking universities.
- The Munk School offers an in-depth Math and Statistics Prep course for students prior to starting Year 1 of the MPP. Details regarding the prep course are available to incoming students in the summer before Year 1. While participation is voluntary, students are encouraged to attend. All incoming students are required to complete the Math-Stats diagnostic.

Program Requirements

- **Coursework.** Students must successfully complete a total of 9.0 full-course equivalents (FCEs) as follows:
  - **Year 1:**
    - 3.5 required FCEs: PPG1000H, PPG10002H, PPG1003H, PPG1004H, PPG1005H, PPG1007H, and PPG1008H.
    - Students must complete the Math-Stats diagnostic at the start of the Fall session.
    - Students who do not pass PPG1002H, PPG1004H, and/or PPG1008H must retake the Math-Stats diagnostic with a grade of at least 60%.
    - 0.5 elective FCE: either GLA2029H or GLA2034H.
  - **Summer between Year 1 and Year 2, or during Year 2:**
    - PPG2006Y MPP Internship (1.0 FCE). The internship research report is graded on a Credit/No Credit basis.
  - **Year 2:**
    - 1.5 required FCEs: PPG2000H, PPG2002H, and PPG2003H.
    - 0.5 elective FCE: either PPG2011H or PPG2022H.
    - 0.5 elective FCE: either PPG2008H or an alternate international/global focus course as approved by the MPP program director.
    - 1.5 elective FCEs: one elective must be a PPG course; the remaining courses may be taken with other graduate units.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

Global Affairs and Public Policy: Public Policy MPP Emphases

**Emphasis: Economics for Public Policy**

MPP students who wish to complete the emphasis in Economics for Public Policy must successfully complete **1.5 full-course equivalents (FCEs)** from the following list:

GLA2001H, GLA2097H, PPG2010H, PPG2013H, or other approved elective courses in the area.

**Emphasis: Public and Non-Profit Management and Administration**

MPP students who wish to complete the emphasis in Public and Non-Profit Management and Administration must successfully complete **1.5 full-course equivalents (FCEs)** from the following list:


**Emphasis: Social and Urban Policy**

MPP students who wish to complete the emphasis in Social and Urban Policy must successfully complete **1.5 full-course equivalents (FCEs)** from the following list:

PPG2013H, PPG2017H, PPG2021H, CHL5300H, CHL5308H, HAD5778H, LAW7030H, SWK4803H, or other approved elective courses in the area.
Global Affairs and Public Policy: Public Policy MPP Courses

Course List

Required Core Courses

MPP1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPG1000H</td>
<td>Governance, Institutions, and Public Policy</td>
</tr>
<tr>
<td>PPG1002H</td>
<td>Microeconomics for Policy Analysis (Students who do not pass PPG1002H must retake the Math-Stats diagnostic with a grade of at least 60%)</td>
</tr>
<tr>
<td>PPG1003H</td>
<td>Macroeconomics for Policy Analysis</td>
</tr>
<tr>
<td>PPG1004H</td>
<td>Quantitative Methods for Policy Analysis (Students who do not pass PPG1004H must retake the Math-Stats diagnostic with a grade of at least 60%)</td>
</tr>
<tr>
<td>PPG1005H</td>
<td>The Social Context of Policy-Making</td>
</tr>
<tr>
<td>PPG1007H</td>
<td>Strategic Policy Implementation</td>
</tr>
<tr>
<td>PPG1008H</td>
<td>Program Evaluation for Public Policy (Prerequisite: PPG1004H; students who do not pass PPG1008H must retake the Math-Stats diagnostic with a grade of at least 60%)</td>
</tr>
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Choose one of:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>GLA2029H</td>
<td>The Sustainability Imperative: Implications for Global Affairs and Public Policy</td>
</tr>
<tr>
<td>GLA2034H</td>
<td>Decision Making and Strategic Thinking</td>
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MPP2

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PPG2000H</td>
<td>Politics and the Policy Process</td>
</tr>
<tr>
<td>PPG2002H</td>
<td>Topics in Applied Economics for Public Policy (Prerequisite: PPG1002H and successful completion of at least 3.5 FCEs in MPP1 courses)</td>
</tr>
<tr>
<td>PPG2003H</td>
<td>Capstone Course: Integrating Issues in Public Policy (Prerequisite: successful completion of at least 5.5 FCEs in MPP courses)</td>
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Choose one of:

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>GLA2068H</td>
<td>Topics in Justice III</td>
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<tr>
<td>PPG2001H</td>
<td>Legal Analysis of Public Policy</td>
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<tr>
<td>PPG2008H</td>
<td>Comparative Public Policy and Transnational Forces</td>
</tr>
<tr>
<td>PPG2010H</td>
<td>Panel Data Methods for Public Policy Analysis</td>
</tr>
<tr>
<td>PPG2012H</td>
<td>Topics in Public Policy</td>
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<tr>
<td>PPG2013H</td>
<td>Topics in Public Policy I</td>
</tr>
<tr>
<td>PPG2014H</td>
<td>Topics in Public Policy II</td>
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<tr>
<td>PPG2015H</td>
<td>Topics in Public Policy III</td>
</tr>
<tr>
<td>PPG2017H</td>
<td>Topics in Public Policy: Urban Policy</td>
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<tr>
<td>PPG2018H</td>
<td>The Role of Government</td>
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<tr>
<td>PPG2021H</td>
<td>Priority Topics in Public Administration</td>
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Cross-listed with the Faculty of Law:

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LAW7030H</td>
<td>Issues in Aboriginal Law and Policy</td>
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Internship

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PPG2006Y</td>
<td>MPP Internship (Prerequisite: successful completion of at least 3.5 FCEs in MPP1 courses)</td>
</tr>
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</table>
Health Policy, Management and Evaluation

HPME: Introduction

Faculty Affiliation

Public Health

Degree Programs

Health Policy, Management and Evaluation

MSc

- Concentrations:
  - Clinical Epidemiology and Health Care Research;
  - Health Systems Leadership and Innovation;
  - Health Systems Research
    - Emphases:
      - Health Economics;
      - Health Informatics Research;
      - Health Policy;
      - Health Systems Artificial Intelligence;
      - Health Technology Assessment;
      - Organization and Management Studies;
      - Outcomes and Evaluation Studies
  - Quality Improvement and Patient Safety.

PhD

- Concentrations:
  - Clinical Epidemiology and Health Care Research;
  - Health Professions Education Research;
  - Health Systems Research
    - Emphases:
      - Health Economics;
      - Health Informatics Research;
      - Health Policy;
      - Health Technology Assessment;
      - Organization and Management Studies;
      - Outcomes and Evaluation Studies.

Health Administration

MHSc

Health Informatics

MHI

Combined Degree Programs

STG, Health Administration, MHSc / MSW (admissions have closed)

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Aging, Palliative and Supportive Care Across the Life Course
  - Health Administration, MHSc
  - Health Policy, Management and Evaluation, MSc, PhD

- Bioethics
  - Health Administration, MHSc
  - Health Policy, Management and Evaluation, MSc, PhD

- Global Health (U of T Global Scholar)
  - Health Policy, Management and Evaluation, MSc (thesis only), PhD

- Health Services and Policy Research
  - Health Policy, Management and Evaluation, MSc, PhD

- Public Health Policy
  - Health Administration, MHSc
  - Health Policy, Management and Evaluation, MSc, PhD

- Resuscitation Sciences (admissions have been administratively suspended)
  - Health Policy, Management and Evaluation, MSc, PhD

- Women and Gender Studies
  - Health Administration, MHSc
  - Health Policy, Management and Evaluation, MSc, PhD

- Women’s Health
  - Health Policy, Management and Evaluation, MSc, PhD

Overview

The Institute of Health Policy, Management and Evaluation (IHPME) brings together researchers from a wide range of disciplinary backgrounds. Broad research themes include Clinical Epidemiology and Health Care Research; Health Systems Research including Health Informatics Research, Health Economics, Health Policy, Health Services Organization and Management Studies, Health Services Outcomes and Evaluation, Health Technology Assessment, and Knowledge Translation; Health Administration; System Leadership and Innovation; and Quality Improvement and Patient Safety.

More than 400 faculty members from a variety of disciplines are represented in IHPME. At least 130 senior health care executives serve as adjunct faculty.

Please note the application deadlines.

November 15

- MSc in Health Policy, Management and Evaluation concentrations: Clinical Epidemiology and Health Care Research; Health Systems Research
- PhD in Health Policy, Management and Evaluation concentrations: Clinical Epidemiology and Health Care Research; Health Professions Education Research; Health Systems Research

November 30

- MSc in Health Policy, Management and Evaluation concentration: Quality Improvement and Patient Safety

January 15

- MSc in Health Policy, Management and Evaluation concentration: System Leadership and Innovation (Undergraduate and Postgraduate Medical Education applicants)
February 1
- Master of Health Informatics
- MHSc in Health Administration

March 1
- Master of Health Informatics (executive option)

Contact and Address
Web: ihpme.utoronto.ca/community/connect
Email: ihpme@utoronto.ca
Telephone: (416) 978-4326
Fax: (416) 978-7350

Institute of Health Policy, Management and Evaluation
University of Toronto
4th Floor, 155 College Street
Toronto, Ontario M5T 3M6
Canada

HPME: Graduate Faculty

Full Members
Anderson, Geoff - MD
Atzema, Clare - BA, MSc, MD
Austin, Peter - PhD
Baker, G. Ross - AB, MA, PhD
Baxter, Nancy - DrMed, PhD
Berta, Whitney - BS, MBA, PhD
Beyene, Joseph - BSc, MSc, PhD
Brown, Adalsteinn - AB, PhD (Dean)
Cafazzo, Joseph - DPhil
Cockerill, Rhonda W - BA, MA, PhD
Cohen, Eyal - MSc, MD
Coyte, Peter C. - BA, MA, PhD
Deber, Raisa - BS, MS, PhD
Dell, Sharon - MD
Detsky, Allan - BS, MD, PhD
Dobrow, Mark - PhD
Fremes, Stephen - BA, MSc, MD
Goodwin, Pamela - MD
Hogg-Johnson, Sheila - BMath, MMath, PhD
Jefferis, Lianne - MSN, PhD
Kingdom, John - DipCH, MB, MD
Kulasegaram, Kulamakan - BSc, PhD
Kulkarni, Abhaya - BSc, MD, PhD
Kuper, Ayelet - AB, MEd, MD, PhD
Laporte, Audrey - BA, MA, PhD (Director)
Lipscombe, Lorraine - MSc, MD
Loutfy, Mona - MPH, MD
Marchildon, Gregory - PhD
Martinianakis, Tina - MA, MEd, PhD
McCrindle, Brian - MD
Miller, Fiona - BIS, MA, DPhil
Moulton, Carol-Anne - MSc, DrMed
Nathan, Paul - BA, MSc, MD
Nauenberg, Eric - AB, MPH, PhD
Naylor, C. David - MD, PhD
Ng, Stella - BA, MA, PhD
Nguyen, Geoffrey - MD
O’Sullivan, Julia - BA, MA, PhD
Parekh, Rulan - MD
Paszat, Lawrence - MS, MD
Poland, Blake - BA, PhD
Ratnapalan, Savithri - MEd, MBBS
Robinson, Lawrence - BA, MD
Rush, Brian - BA, MA, PhD
Sander, Beate - PhD
Scales, Damon - MD
Schwartz, Robert - BA, PhD
Seto, Emily - PhD
Shachak, Aviv - PhD (Graduate Coordinator; on leave until June 30, 2024)
Shah, Baiju - MD
Stabile, Mark - BA, MA, PhD, MD
Stinson, Jennifer - BScN, MSc, PhD
Straus, Sharon Elizabeth - MSc, MD
Trbovich, Patricia L - BA, MA, PhD, MD
Wales, Paul - BSc, MSc, MD
Walsh, Catharine - MEd, MD
Wei, Xiaolin - MPH, MD, PhD
Wijeysundera, Duminda - MSc, MD
Wijeysundera, Harinda - BSc, MD, PhD
Wodchis, Walter - MA, PhD
Woods, Nicole - BA, PhD

Members Emeriti
Barnsley, Jan - BSc, MSc, PhD

Associate Members
Albert, Mathieu - PhD
Anderson, Kelly - PhD
Avila, Maria Laura - MD, PhD
Axler, Renata - BA, MA, PhD
Azarpazhooh, Amir - MSc, DDS, PhD
Baumann, Andrea - BN, MN, PhD
Benchimol, Eric - MD
Berger, Howard - BSc, MD
Bezjak, Andrea - MS, MDCM
Bingham, Kathleen - BSc, MD, PhD
Blackstein-Hirsch, Paula - MHS, MHSA, MHS
Boehm, Leslie A. - BA, MA, MA
Borkhoff, Cornelia - BSc, MSc, PhD
Bunger, Alicia - PhD
Cammisa, Giuseppe - MBA
Campbell, Weronah - PhD
Chadi, Ahmed - BS, MS, MD
Chan, An-Wen - BSc, MD, DPhil
Chan, Ben - BSc, MPH, MPA, MD
Cheung, Matthew - MSc, MD
Church, Peter - MD
Covelli, Andrea - BS, MD, PhD
Craven, Beverley Catharine - MD
Darling, Liz - PhD
de Almeida, John - MD
De Mestral, Charles - MDCM, PhD
Drennan, Ian - BSc, PhD
Drucker, Aaron - MS, MD
Dubinsky, Isser - BSc, MD, MD
Dufour, Lucas - PhD
Fralick, Michael - MD, PhD
Furlan, Julio - MSc, DrMed, PhD
Gaines, Tommi - PhD
Gill, Peter - MS, MD, DPhil
Goldman, Russell - MPH, MD
Gomez Jaramillo, David - MD, PhD
Gotlib Conn, Lesley - BA, MA, PhD
Govindarajan, Anand - BSc, MSc, DrMed
Goodyra, Piotr - BA, MA
Gupta, Samir - MSc, MDcm
Gupta, Vikas - MBBS
Hall, Ruth - BASc, MSc
Hameed, Usmaan - BS, MD
Hancock Howard, Rebecca - PhD
Hendrick-Hallet, Julie - MSc, MD
Hirschefield, Gideon - MA, PhD
Horton, Susan - BA, MA, MA, PhD
Huang, Vivian - MS, MD
Huszti, Ella - MSc, PhD
Irish, Jonathan - MSc, MD
Jackevicius, Cynthia - BS, MSc
Kantarevic, Jasmin - PhD
Kim, Joseph - MHSc, MD, PhD
Kiss, Alexander - PhD
Kozloff, Nicole - BA, SM, MD
Kumbhare, Dinesh - BSc, MHSc, MD
Kuo, Kevin - BSc, MD
Kusurkar, Rashmi - PhD
Lapointe-Shaw, Lauren - MD, PhD
Larsen, Darren - MD
Lega, Iliana - MD
Levitt, Kevin Samuel - BSc, MSc, MD
Levy, Charissa - MHSc
Lexchin, Joel - BSc, MSc, MD
Lin, Steve - MSc, MD
Liu, Kuan - BSc, MMath, PhD
Liu, Ning - PhD
Lix, Lisa - PhD
Lotfollahi Shabestari, Omid - MD, PhD
Maetzl, Andreas - MSc, PhD
Marcon, Peggy - MD
Marras, Connie - MD
Martin, Taylor - MHSa
Maurer, Daphne - PhD
McCredie, Victoria - MBCHB, DPhil
Mcleod, Shelley - MSc, MSc
Milo-Manson, Golda - BSc, MSc, MD, MD
Mozessohn, Lee - MD
Munce, Sarah - BSc, MSc, PhD
Munshi, Laveena - MSc, DrMed
Narayanan, Unni - MSc, MD
Nelson, Michelle - BA, MA, PhD
Okraineck, Karen - DrMed
Onyura, Betty - MA, PhD
Paprica, Alison - DSc
Parmar, Ambika - MSc, MD
Paul, Robert - PhD
Petch, Jeremy - BA, MA, PhD
Piggott, Katrina - MD, MD
Piquette, Dominique - MSc, MD, MD
Pitzul, Kristen - PhD
Quinn, Kieran - MD
Rackow, Valerie - BS, MHSc
Razak, Fahad - BSc, MSc, MD
Riccioito, Amanda - MDcm
Rueda, Sergio - MSc, AM, PhD
Sawka, Anna - MSc, MD, BScMed, PhD
Seeman, Neil - BA, MPH, JD
Sejdic, Ervin - PhD, PhD
Seto, Winnie - BScPhm, MSc, DP
Shah, Prakeshkumar - MD
Shakeri Hossein Abad, Zahra - PhD
Shea, Christine - PhD
Shehata, Nadine - MEd, MD
Shojania, Kaveh - BSc, MD
Sholzberg, Michelle - BSc, DrMed
Shulman, Rayzel - MD
Simpson, Andrea - BSc, MSc, MD
Sinclair, Douglas - BSc, MD
Smith, Tina - BSc, MHSc (Acting Graduate Coordinator)
Snelgrove, John - BSc, MSc, MD
Snider, Carolyn - BSc, BComm, MPH, MD
Soklaridis, Sophie - BSc, MSS, PhD
Stricker Naimer, Michelle - BS, MHSc, DrMed
Strudwick, Gillian - PhD
Tavares, Walter - BSc, MSc, PhD
Teare, Gary - MSc, DrMedVet, PhD
Thomson, Nicole - BS, MSc
Thorsteinsdottir, Halla - PhD
Varner, Catherine - BA, MD
Verma, Amol A. - MPH, MD
Vyas, Manav - MSc, MBBS, PhD
Wang, Bo - BS, MS, PhD
Wang, Karen - BA, BEd, MEd, MD
Watt, Jennifer - MD, MD
Wegier, Pete - MSc, PhD
Wilson, Jefferson - BS, MD, PhD
Wong, Brian - MD
Wright, Sarah Robin - PhD
Yu, Amy - MSc, MD
Zaheer, Juveria - AB, MSc, DrMed
Zenlea, Ian - MD
Zimmermann, Camilla - MSc, MD
Zywiel, Michael - BS, MS, MD

HPME: Health Policy, Management and Evaluation MSc

Master of Science

Program Description

The HPME graduate program offers the following concentrations leading to the MSc degree:

- Clinical Epidemiology and Health Care Research;
- Health Systems Leadership and Innovation;
- Health Systems Research; and
- Quality Improvement and Patient Safety

The MSc program can be taken on a full-time or part-time basis.

HPME: Health Policy, Management and Evaluation MSc Concentration: Clinical Epidemiology and Health Care Research

Master of Science

Concentration: Clinical Epidemiology and Health Care Research
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME’s additional admission requirements stated below.
- Applicants require an overall B+ average or higher in the last two years of an appropriate bachelor’s degree from a recognized university. For applicants to this concentration, a degree in a health profession (for example, MD, BScN, BScOT, BScPT, DDM, MScN) from a recognized university with a B+ average in the final two years is required.

Program Requirements

Two options are available:

- Thesis option comprising 3.0 full-course equivalents (FCEs) and a thesis.
- Coursework-only option comprising 5.0 FCEs, including completion of at least one research practicum.

Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Thesis MSc

- Completion of **3.0 FCEs** as follows:
  o 1.5 FCEs required: HAD5301H, HAD5307H, and one of HAD5303H, HAD5304H, HAD5306H, or HAD5309H
  o 1.5 FCEs in electives.
- A thesis written under the supervision of a thesis committee (supervisor and at least one, and preferably two, additional graduate faculty members) and its defence before an examination committee.

Coursework-Only MSc

- Completion of **5.0 FCEs** as follows:
  o 2.0 FCEs required: HAD5301H, HAD5307H, HAD6360H, and one of HAD5303H, HAD5304H, or HAD5309H
  o 3.0 FCEs in electives.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

HPME: Health Policy, Management and Evaluation MSc Concentration: Health Systems Leadership and Innovation

Master of Science Concentration: Health Systems Leadership and Innovation

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME’s additional admission requirements stated below.
- Applicants require an overall B+ average or higher in the last two years of an appropriate bachelor's degree from a recognized university.
- Applicants must have health-care experience and demonstrate aptitude for innovation and health systems.
- Preference will be given to medical trainees in a Canadian Faculty of Medicine or to early-career physicians. Undergraduate medical trainees who are accepted must register part-time; post-graduate medical education trainees who are accepted may register full-time or part-time.

Program Requirements

The concentration in Health Systems Leadership and Innovation consists of coursework only. Students begin this concentration in the Summer session.

- Completion of **5.0 full-course equivalents (FCEs)** as follows:
  o 1.0 required FCE in experiential learning: HAD2040Y
  o 1.5 elective FCEs; please consult with the department about electives
  o Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Program Length

3 sessions full-time (typical registration sequence: S/F/W);
7 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Course that may continue over a program. The course is graded when completed.
HPME: Health Policy, Management and Evaluation MSc Concentration: Health Systems Research

Master of Science
Concentration: Health Systems Research

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME’s additional admission requirements stated below.
- Applicants require an overall B+ average or higher in the last two years of an appropriate bachelor’s degree from a recognized university. For applicants to Clinical Epidemiology and Health Care Research, a degree in a health profession (for example, MD, BScN, BScOT, BScPT, DDM, MSCN) from a recognized university with a B+ average in the final two years is required.

Program Requirements

Two options are available:

- Thesis option comprising 3.0 full-course equivalents (FCEs) and a thesis.
- Coursework-only option comprising 5.0 FCEs.

Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Thesis MSc

- Completion of 3.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE in research methodology courses
  - 1.0 FCE in health systems research courses:
    - HAD5011H Canada’s Health Care System and Health Policy
      - 0.5 FCE from other health systems research courses
  - 1.0 FCE in electives.
- A thesis written under the supervision of a thesis committee and its defence before an examination committee.

Coursework-Only MSc

- Completion of 5.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE in health systems research courses, normally from HAD5011H, HAD5022H, HAD5727H, HAD5756H, or HAD5773H
  - 1.0 FCE in research methodology courses, normally from HSR1001H, HAD5765H, HAD5772H, HAD5740H, HAD5742H, HAD5744H, HAD5746H, HAD5779H, or HAD5781H
  - 3.0 FCEs in electives, normally from HAD5726H, HAD5728H, HAD5730H, HAD5737H, HAD5738H, HAD5743H, HAD5744H, HAD5760H, HAD5763H, HAD5771H, HAD5778H, or HAD6750H.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Students in the thesis option of the Health Systems Research concentration have the option to complete an emphasis by completing 2.0 full-course equivalents (FCEs) in a given area. The emphasis requirements will also count toward their 3.0 FCE concentration requirements.

Students in the Vector pathway within the Health Systems Research concentration must complete the emphasis in Health Systems Artificial Intelligence and complete their remaining 1.0 FCE concentration requirements by taking HAD5011H and HAD5772H.

Emphasis: Health Economics

Students must complete 2.0 FCEs as follows:

- HAD5730H Economic Evaluation Methods for Health Systems Research.
- HAD5744H Applied Health Econometrics I.
- HAD5746H Applied Health Econometrics II.

Emphasis: Health Informatics Research

Students must complete 2.0 FCEs as follows:

- HAD5726H Evaluation and Research Design in Health Informatics.
- Three courses (1.5 FCEs) from the course listing for the Health Systems Research concentration, Master of Health Informatics program, or other relevant graduate courses as approved by the Graduate Coordinator.

Emphasis: Health Policy

Students must complete 2.0 FCEs as follows:

- CHL5300H Public Health Policy.
- HAD5778H Comparative Health Systems and Policy.
- 1.0 FCE from the following list:
  - CHL5308H Tools and Approaches for Public Health Policy Analysis and Evaluation
  - HAD5022H Politics, Policy, Public Health, and Health Technology
  - HAD5765H Case Studies in Health Policy
  - Other health policy research course as appropriate, for example:
    - CHL5523H Indigenous Health and Social Policy
    - CHL5702H History of International Health or
Emphasis: Health Systems Artificial Intelligence

- Students must complete 2.0 FCEs as follows:
  - CHL3020H Ethics and AI in Health
  - CHL5230H Applied Machine Learning for Health Data (research methods course)
  - MHI2002H Emergent Topics in Health Informatics
  - 0.5 FCE from the course listing for the Health Systems Research concentration or the Master of Health Informatics program. Recommended: HAD5726H Evaluation and Research Design in Health Informatics.

Emphasis: Health Technology Assessment

- Students must complete 2.0 FCEs as follows:
  - HAD5301H Introduction to Clinical Epidemiology and Health Care Research or equivalent.
  - HAD5307H Introduction to Applied Biostatistics.
  - 0.5 FCE from the course listing for the Health Systems Research concentration.
  - 0.5 FCE from the following list:
    - HAD5730H Economic Evaluation Methods for Health Systems Research
    - HAD5771H Resource Allocation Ethics

Emphasis: Organization and Management Studies

- Students must complete 2.0 FCEs as follows:
  - HAD5773H Introduction to Theories of Organizational Behaviour and Applications to the Health Care Sector.
  - 1.5 FCEs from the following list:
    - HAD5727H Knowledge Transfer and Exchange
    - HAD5737H Tools for Implementation Science
    - HAD5740H Intermediate Level Qualitative Methods
    - HAD5742H Mixed Methods for Health Systems Research
    - HAD5744H Applied Health Econometrics I
    - HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.

Emphasis: Outcomes and Evaluation Studies

- Students must complete 2.0 FCEs as follows:
  - HAD5720H Evaluation I
  - 0.5 FCE from the following list:
    - HAD5743H Evaluation II
    - HAD5763H Advanced Methods in Health Services Research
  - 0.5 FCE from the following list:
    - CHL5202H Biostatistics II
    - HAD5316H Biostatistics II: Advanced Techniques in Applied Regression Methods
    - HAD5772H Intermediate Statistics for Health Systems Researchers
  - 0.5 elective FCE from the course listing for the Health Systems Research concentration.

HPME: Health Policy, Management and Evaluation MSc Concentration: Quality Improvement and Patient Safety

Master of Science
Concentration: Quality Improvement and Patient Safety

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME’s additional admission requirements stated below.
- Applicants require an overall B+ average or higher in the last two years of an appropriate bachelor’s degree from a recognized university.

Program Requirements

Two options are available:
1. Thesis option comprising 3.0 full-course equivalents (FCEs) and a thesis.
2. Coursework-only option comprising 5.0 FCEs, including completion of at least one research practicum.

Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Thesis MSc

- Completion of 3.0 FCEs as follows:
  - 2.5 FCEs required: HAD3010H, HAD3020H, HAD3041Y, HAD3050H
  - 0.5 FCE in electives.
- A thesis written under the supervision of a thesis committee (comprising the supervisor and at least one additional graduate faculty member, preferably two) and its defence before an examination committee.

Coursework-Only MSc

- Completion of 5.0 FCEs as follows:
  - 3.0 required FCEs (HAD3010H, HAD3020H, HAD3030H, HAD3050H, HAD3060H, HAD3070H)
  - 1.0 required FCE in a research project practicum (HAD3040Y)
  - 1.0 FCE in electives.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time
The HPME graduate program offers three concentrations leading to the PhD degree: 1) Clinical Epidemiology and Health Care Research; 2) Health Professions Education Research; and 3) Health Systems Research.

Applicants may enter the PhD program via one of two routes: 1) following completion of an MA or MSc degree; 2) transfer from the University of Toronto MSc transfer program.

The PhD program can be taken on a full-time or flexible-time basis. Some applicants may be admitted to a flexible-time PhD option with the approval of the Graduate Chair. The flexible-time PhD option benefits mature students with career and/or familial obligations.

HPME: Health Policy, Management and Evaluation PhD Concentration: Clinical Epidemiology and Health Care Research

Doctor of Philosophy

Program Requirements

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the IHPME’s additional admission requirements stated below.
- Applicants to this concentration must have a degree in a health profession (for example, MD, BScN, BScOT, BScPT, DDM, MSn, or equivalent).
- Satisfactory references pertaining to the applicant’s academic and research abilities.
- Outstanding students with a non-thesis master’s degree may be admitted to the full-time PhD upon the recommendation of the appropriate IHPME committee, if the applicant has the appropriate background preparation and research experience or publications which can be considered equivalent to a master's thesis.

Program Requirements

- Completion of a comprehensive course.
- Completion of 5.0 full-course equivalents (FCEs) from the PhD courses listed below, which must include:
  - 2.0 FCEs in compulsory courses and
  - 2.0 recommended FCEs from the Clinical Epidemiology and Health Care Research courses listed below.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus at least two additional graduate faculty members).
- Oral defence of the thesis before an examination committee.

Program Length

4 years full-time
Time Limit
7 years full-time

PhD Program (Flexible-Time)

With approval of the Graduate Chair, some applicants may be admitted to a flexible-time PhD option. This option will benefit students with career obligations. The degree requirements for the flexible-time PhD option are identical to those listed above for the full-time PhD option.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the IHPME’s additional admission requirements stated below.
- Applicants to this concentration must have a degree in a health profession (for example, MD, BScN, BScOT, BScPT, DDM, MScN, or equivalent).
- Satisfactory references pertaining to the applicant's academic and research abilities.
- Outstanding students with a non-thesis master's degree may be admitted to the flexible-time PhD upon the recommendation of the appropriate IHPME committee, if the applicant has the appropriate background preparation and research experience or publications which can be considered equivalent to a master's thesis.

Program Requirements

- Students must register full-time for the first four years of their program (Fall, Spring, Summer sessions); thereafter, they may register part-time.
- Completion of a comprehensive course.
- Completion of 5.0 full-course equivalents (FCEs) from the PhD courses listed below, which must include:
  o 2.0 FCEs in compulsory courses and
  o 2.0 recommended FCEs from the Clinical Epidemiology and Health Care Research courses listed below.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus at least two additional graduate faculty members).
- Oral defence of the thesis before an examination committee.

Program Length
6 years flexible-time

Time Limit
8 years flexible-time

HPME: Health Policy, Management and Evaluation PhD Concentration: Health Professions Education Research

Doctor of Philosophy
Concentration: Health Professions Education Research

PhD Program (Full-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the IHPME’s additional admission requirements stated below.
- A master's degree (MA or MSc) requiring a thesis with a B+ average or higher.
- Satisfactory references pertaining to the applicant's academic and research abilities.
- Outstanding students with a non-thesis master's degree may be admitted to the full-time PhD upon the recommendation of the appropriate IHPME committee, if the applicant has the appropriate background preparation and research experience or publications which can be considered equivalent to a master's thesis.

Program Requirements

- Completion of a comprehensive course.
- Completion of 5.0 full-course equivalents (FCEs) from the PhD courses listed below, which must include:
  o 4.5 FCEs in compulsory courses from the Health Professions Education Research courses listed below.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus at least two additional graduate faculty members).
- Oral defence of the thesis before an examination committee.

Program Length
4 years full-time

Time Limit
6 years full-time

PhD Program (Flexible-Time)

With approval of the Graduate Chair, some applicants may be admitted to a flexible-time PhD option. This option will benefit students with career obligations. The degree requirements for the flexible-time PhD option are identical to those listed above for the full-time PhD option.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the IHPME's additional admission requirements stated below.
- A master's degree (MA or MSc) requiring a thesis with a B+ average or higher.
- Satisfactory references pertaining to the applicant's academic and research abilities.
- Outstanding students with a non-thesis master's degree may be admitted to the PhD upon the recommendation of the appropriate IHPME committee, if the applicant has the appropriate background preparation and research experience or publications which can be considered equivalent to a master's thesis.

Program Requirements

- Students must select one of six emphases and complete the required emphasis courses listed below.
- Completion of 5.0 full-course equivalents (FCEs) including:
  - A comprehensive course (0.5 FCE) specified as part of the requirements for each emphasis below.
  - 2.0 FCEs as follows: HAD5011H, HAD5772H (or equivalent if specified in the selected emphasis), HAD6760H, and HAD6770H.
- Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus at least two additional graduate faculty members).
- Oral defence of the thesis before an examination committee.

Program Length

4 years full-time

Time Limit

6 years full-time

Students enrolled in the Health Systems Research concentration of the PhD program must study under one of six emphases, described below, and complete six courses (3.0 full-course equivalents [FCEs]) related to their declared emphasis.

Emphasis: Health Economics

Students must complete 3.0 FCEs as follows:

- HAD5730H Economic Evaluation Methods for Health Systems Research.
- HAD5744H Applied Health Econometrics I.
- HAD5746H Applied Health Econometrics II.
- HAD6750H Advanced Health Economics and Policy Analysis II.
- 0.5 FCE from the course listing for the Health Systems Research concentration.

Emphasis: Health Informatics Research

Students must complete 3.0 FCEs as follows:

- HAD5726H Evaluation and Research Design in Health Informatics.
- HAD5747H Cognitive, Social, and Information Science Theory in Health Informatics Research.
- HAD6764H Health Informatics Research Comprehensive Course.
- HAD6762H Organization and Management Studies Comprehensive Course.
- HAD5750H Seminar in Organizational Behaviour.
- HAD5773H Introduction to Theories of Organizational Behaviour and Applications to the Health Care Sector.
- HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
- One course (0.5 FCE) from the course listing for the Health Systems Research concentration.

Emphasis: Health Technology Assessment

Students must complete 3.0 FCEs as follows:

- CHL5300H Public Health Policy (students may elect to take this course on a Credit/No Credit basis).
- HAD5778H Comparative Health Systems and Policy.
- HAD6763H Health Policy Comprehensive Course.
- 0.5 FCE from the following list:
  - HAD5022H Politics, Policy, Public Health, and Health Technology.
  - HAD5765H Case Studies in Health Policy.
  - Other course as appropriate, for example:
    - CHL5523H Indigenous Health and Social Policy.
    - CHL5702H History of International Health.
- 0.5 FCE from the following list:
  - HAD5742H Mixed Methods for Health Systems Research.
  - HAD5781H Case Study Research for Health Services, Systems, and Policy.
  - HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
  - Other courses from the course listing for the Health Systems Research concentration in the area of policy-relevant methods.
- 0.5 FCE from the course listing for the Health Systems Research concentration, or other HPME concentrations as approved by the HPME graduate coordinator.

Emphasis: Health Policy

Students must complete 3.0 FCEs as follows:

- CHL5300H Public Health Policy (students may elect to take this course on a Credit/No Credit basis).
- HAD5778H Comparative Health Systems and Policy.
- HAD6763H Health Policy Comprehensive Course.
- 0.5 FCE from the following list:
  - HAD5022H Politics, Policy, Public Health, and Health Technology.
  - HAD5765H Case Studies in Health Policy.
  - Other course as appropriate, for example:
    - CHL5523H Indigenous Health and Social Policy.
    - CHL5702H History of International Health.
- 0.5 FCE from the following list:
  - HAD5742H Mixed Methods for Health Systems Research.
  - HAD5781H Case Study Research for Health Services, Systems, and Policy.
  - HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
  - Other courses from the course listing for the Health Systems Research concentration in the area of policy-relevant methods.
- 0.5 FCE from the course listing for the Health Systems Research concentration, or other HPME concentrations as approved by the HPME graduate coordinator.

Emphasis: Outcomes and Evaluation Studies

Students must complete 3.0 FCEs as follows:

- HAD5743H Evaluation II.
- HAD6761H Outcomes and Evaluation Studies Comprehensive Course.
- HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
- Two courses (1.0 FCE) from the following list:
  - HAD5720H Evaluation I.
  - HAD5730H Economic Evaluation Methods for Health Systems Research.
  - HAD5740H Intermediate Level Qualitative Methods.
  - HAD5742H Mixed Methods for Health Systems Research.
  - HAD5763H Advanced Methods in Health Services Research.
  - HAD5781H Case Study Research for Health Services, Systems and Policy.
- One course (0.5 FCE), generally an advanced methods course, from the course listing for the Health Systems Research concentration.

PhD students in the Health Systems Research concentration who are pursuing the emphasis in Outcomes and Evaluation Studies may fulfill the concentration requirements by replacing HAD5772H Intermediate Statistics for Health Systems Researchers with CHL5202H Biostatistics II or HAD5316H Biostatistics II: Advanced Techniques in Applied Regression Methods.

PhD Program (Transfer)

Transfer Requirements

- To be considered for admission to the PhD transfer option, applicants must be admitted to the MSc program in Health Policy, Management and Evaluation.
- At the time of application to the MSc program, applicants must indicate in their Letter of Intent their interest in applying to transfer to the PhD program.
- Transfer to the PhD program is contingent upon:
  - Successful completion of a minimum 2.5 FCEs of master’s coursework.

Emphasis: Organization and Management Studies

Students must complete 3.0 FCEs as follows:

- HAD5742H Mixed Methods for Health Systems Research.
Achieving a minimum grade of B+ in all courses and an overall average of A– in their program.

Obtaining a letter of support from the applicant's supervisor.

The preparation and defence of a PhD-quality thesis proposal.

**Program Requirements**

- Once students have successfully transferred to the PhD program, they must study under **one of six emphases** and complete the required emphasis courses listed below.
- Completion of **5.0 full-course equivalents (FCEs)** including:
  - A comprehensive course (0.5 FCE) specified as part of the requirements for each emphasis below.
  - 2.0 FCEs as follows: HAD5011H, HAD5772H (or equivalent if specified in the selected emphasis), HAD6760H, and HAD6770H.
- Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus at least two additional graduate faculty members).
- **Oral defence** of the thesis before an examination committee.

**Program Length**

5 years full-time

**Time Limit**

7 years full-time

Students enrolled in the **Health Systems Research Concentration** of the PhD program must study under **one of six emphases**, described below, and complete six courses (**3.0 full-course equivalents [FCEs]**) related to their declared emphasis.

**Emphasis: Health Policy**

Students must complete 3.0 FCEs as follows:

- CHL5300H *Public Health Policy* (students may elect to take this course on a Credit/No Credit basis).
- HAD5778H *Comparative Health Systems and Policy*.
- HAD6763H *Health Policy Comprehensive Course*.
- 0.5 FCE from the following list:
  - CHL5308H *Tools and Approaches for Public Health Policy Analysis and Evaluation*.
  - HAD5022H *Politics, Policy, Public Health, and Health Technology*.
  - HAD5765H *Case Studies in Health Policy*.
  - Other course as appropriate, for example:
    - CHL5523H *Indigenous Health and Social Policy*.
    - CHL5702H *History of International Health*.
- 0.5 FCE from the following list:
  - HAD5742H *Mixed Methods for Health Systems Research*.
  - HAD5781H *Case Study Research for Health Services, Systems, and Policy*.
  - HSR1001H *Introduction to Qualitative Methods for Health Systems and Policy Research*.
  - Other courses from the course listing for the Health Systems Research concentration in the area of policy-relevant methods.
- 0.5 FCE from the course listing for the Health Systems Research concentration, or other HPME concentrations as approved by the HPME graduate coordinator.

**Emphasis: Health Economics**

Students must complete 3.0 FCEs as follows:

- HAD5730H *Economic Evaluation Methods for Health Systems Research*.
- HAD5744H *Applied Health Econometrics I*.
- HAD5746H *Applied Health Econometrics II*.
- HAD5760H *Advanced Health Economics and Policy Analysis*.
- HAD6750H *Advanced Health Economics and Policy Analysis II*.
- 0.5 FCE from the course listing for the Health Systems Research concentration.

**Emphasis: Health Technology Assessment**

Students must complete 3.0 FCEs as follows:

- HAD5301H *Introduction to Clinical Epidemiology and Health Care Research*.
- HAD6765H *Health Technology Assessment Comprehensive Course* (Credit/No Credit).
- Three courses (1.5 FCEs) from the course listing for the Health Systems Research concentration.
- One course (0.5 FCE) from the following list:
  - HAD5730H *Economic Evaluation Methods for Health Systems Research*.
  - HAD5771H *Resource Allocation Ethics*.

**Emphasis: Organization and Management Studies**

Students must complete 3.0 FCEs as follows:

- HAD5742H *Mixed Methods for Health Systems Research*.
- HAD5750H *Seminar in Organizational Behaviour*.

- Three courses (1.5 FCEs) from the course listing for the Health Systems Research concentration, Master of Health Informatics program, or other relevant graduate courses as approved by the Graduate Coordinator.
• HAD5773H Introduction to Theories of Organizational Behaviour and Applications to the Health Care Sector.
• HAD6762H Organization and Management Studies Comprehensive Course.
• HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
• One course (0.5 FCE) from the course listing for the Health Systems Research concentration.

Emphasis: Outcomes and Evaluation Studies

Students must complete 3.0 FCEs as follows:

• HAD5743H Evaluation II.
• HAD6761H Outcomes and Evaluation Studies Comprehensive Course.
• HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
• Two courses (1.0 FCE) from the following list:
  o HAD2003H Learning Health Systems Part 1: Identifying Opportunities for System Change and Designing Sound Innovations.
  o HAD5720H Evaluation I.
  o HAD5728H Performance Measurement in Health Care: Theory and Application.
  o HAD5730H Economic Evaluation Methods for Health Systems Research.
  o HAD5740H Intermediate Level Qualitative Methods.
  o HAD5742H Mixed Methods for Health Systems Research.
  o HAD5781H Case Study Research for Health Services, Systems and Policy.
• One course (0.5 FCE), generally an advanced methods course, from the course listing for the Health Systems Research concentration.

PhD students in the Health Systems Research concentration who are pursuing the emphasis in Outcomes and Evaluation Studies may fulfill the concentration requirements by replacing HAD5772H Intermediate Statistics for Health Systems Researchers with CHL5202H Biostatistics II or HAD5316H Biostatistics II: Advanced Techniques in Applied Regression Methods.

Program Requirements

• Students must register full-time for the first four years of their program (Fall, Spring, Summer sessions); thereafter, they may register part-time.
• Students must select one of six emphases and complete the required emphasis courses listed below.
• Completion of 5.0 full-course equivalents (FCEs) including:
  o A comprehensive course (0.5 FCE) specified as part of the requirements for each emphasis below.
  o 2.0 FCEs as follows: HAD5011H, HAD5772H (or equivalent if specified in the selected emphasis), HAD6760H, and HAD6770H.
• Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus at least two additional graduate faculty members).
• Oral defence of the thesis before an examination committee.

Program Length

6 years flexible-time

Time Limit

8 years flexible-time

Students enrolled in the Health Systems Research Concentration of the PhD program must study under one of six emphases, described below, and complete six courses (3.0 full-course equivalents [FCEs]) related to their declared emphasis.

Emphasis: Health Economics

Students must complete 3.0 FCEs as follows:

• HAD5730H Economic Evaluation Methods for Health Systems Research.
• HAD5744H Applied Health Econometrics I.
• HAD5746H Applied Health Econometrics II.
• HAD5760H Advanced Health Economics and Policy Analysis.
• HAD6750H Advanced Health Economics and Policy Analysis II.
• 0.5 FCE from the course listing for the Health Systems Research concentration.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the IHPME’s additional admission requirements stated below.
• A master's degree (MA or MSc) requiring a thesis with a B+ average or higher.
Emphasis: Health Informatics Research

Students must complete 3.0 FCEs as follows:

- HAD5726H Evaluation and Research Design in Health Informatics.
- HAD5747H Cognitive, Social, and Information Science Theory in Health Informatics Research.
- HAD6764H Health Informatics Research Comprehensive Course.
- Three courses (1.5 FCEs) from the course listing for the Health Systems Research concentration, Master of Health Informatics program, or other relevant graduate courses as approved by the Graduate Coordinator.

Emphasis: Health Policy

Students must complete 3.0 FCEs as follows:

- CHL5300H Public Health Policy (students may elect to take this course on a Credit/No Credit basis).
- HAD5778H Comparative Health Systems and Policy.
- HAD6763H Health Policy Comprehensive Course.
- 0.5 FCE from the following list:
  - HAD5022H Politics, Policy, Public Health, and Health Technology.
  - HAD5765H Case Studies in Health Policy.
  - Other course as appropriate, for example:
    - CHL5523H Indigenous Health and Social Policy.
    - CHL5702H History of International Health.

- 0.5 FCE from the following list:
  - HAD5742H Mixed Methods for Health Systems Research.
  - HAD5781H Case Study Research for Health Services, Systems, and Policy.
  - HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
  - Other courses from the course listing for the Health Systems Research concentration in the area of policy-relevant methods.

- 0.5 FCE from the course listing for the Health Systems Research concentration, or other HPME concentrations as approved by the HPME graduate coordinator.

Emphasis: Health Technology Assessment

Students must complete 3.0 FCEs as follows:

- HAD5301H Introduction to Clinical Epidemiology and Health Care Research.
- HAD6765H Health Technology Assessment Comprehensive Course (Credit/No Credit).
- Three courses (1.5 FCEs) from the course listing for the Health Systems Research concentration.
- One course (0.5 FCE) from the following list:
  - HAD5730H Economic Evaluation Methods for Health Systems Research.
  - HAD5771H Resource Allocation Ethics.

Emphasis: Organization and Management Studies

Students must complete 3.0 FCEs as follows:

- HAD5742H Mixed Methods for Health Systems Research.
- HAD5750H Seminar in Organizational Behaviour.
- HAD5773H Introduction to Theories of Organizational Behaviour and Applications to the Health Care Sector.
- HAD6762H Organization and Management Studies Comprehensive Course.
- HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
- One course (0.5 FCE) from the course listing for the Health Systems Research concentration.

Emphasis: Outcomes and Evaluation Studies

Students must complete 3.0 FCEs as follows:

- HAD5743H Evaluation II.
- HAD6761H Outcomes and Evaluation Studies Comprehensive Course.
- HSR1001H Introduction to Qualitative Methods for Health Systems and Policy Research.
- Two courses (1.0 FCE) from the following list:
  - HAD5720H Evaluation I.
  - HAD5730H Economic Evaluation Methods for Health Systems Research.
  - HAD5740H Intermediate Level Qualitative Methods.
  - HAD5742H Mixed Methods for Health Systems Research.
  - HAD5763H Advanced Methods in Health Services Research.
  - HAD5781H Case Study Research for Health Services, Systems, and Policy.
- One course (0.5 FCE), generally an advanced methods course, from the course listing for the Health Systems Research concentration.

PhD students in the Health Systems Research concentration who are pursuing the emphasis in Outcomes and Evaluation Studies may fulfill the concentration requirements by replacing HAD5772H Intermediate Statistics for Health Systems Researchers with CHL5202H Biostatistics II or HAD5316H Biostatistics II: Advanced Techniques in Applied Regression Methods.
HPME: Health Policy, Management and Evaluation MSc, PhD Courses

Students in the Master of Science and Doctor of Philosophy programs may elect to be assessed on a Credit/No Credit basis in courses marked by the symbol ⌘ up to a total of 0.5 FCE.

Concentration: Clinical Epidemiology and Health Care Research

Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD5301H⌘</td>
<td>Introduction to Clinical Epidemiology and Health Care Research</td>
</tr>
<tr>
<td>HAD5307H⌘</td>
<td>Introduction to Applied Biostatistics</td>
</tr>
<tr>
<td>HAD5311H0</td>
<td>Comprehensive/Synthesis (one year)</td>
</tr>
<tr>
<td>HAD5316H⌘</td>
<td>Biostatistics II: Advanced Techniques in Applied Regression Methods</td>
</tr>
</tbody>
</table>

0 Course that may continue over a program. The course is graded when completed.

Recommended Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD5302H⌘</td>
<td>Measurement in Clinical Research</td>
</tr>
<tr>
<td>HAD5303H⌘</td>
<td>Controlled Clinical Trials</td>
</tr>
<tr>
<td>HAD5304H⌘</td>
<td>Clinical Decision Making and Cost Effectiveness</td>
</tr>
<tr>
<td>HAD5305H⌘</td>
<td>Evidence-Based Guidelines</td>
</tr>
<tr>
<td>HAD5306H⌘</td>
<td>Introduction to Health Services Research and the Use of Health Administrative Data</td>
</tr>
<tr>
<td>HAD5308H⌘</td>
<td>Evidence Synthesis: Systematic Reviews and Meta-Analysis</td>
</tr>
<tr>
<td>HAD5309H⌘</td>
<td>Observational Studies: Theory, Design, and Methods</td>
</tr>
<tr>
<td>HAD5310H⌘</td>
<td>Pragmatic Issues in Conduct of Controlled Trials</td>
</tr>
<tr>
<td>HAD5730H⌘</td>
<td>Economic Evaluation Methods for Health Systems Research</td>
</tr>
<tr>
<td>HAD5760H⌘</td>
<td>Advanced Health Economics and Policy Analysis</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD5312H⌘</td>
<td>Decision Modelling for Clinical Policy and Economic Evaluation</td>
</tr>
<tr>
<td>HAD5313H</td>
<td>Advanced Design and Analysis Issues in Clinical Trials</td>
</tr>
<tr>
<td>HAD5314H⌘</td>
<td>Applied Bayesian Methods in Clinical Epidemiology and Health Care Research</td>
</tr>
<tr>
<td>HAD5315H⌘</td>
<td>Advanced Topics in Measurement</td>
</tr>
<tr>
<td>HAD5316H⌘</td>
<td>Biostatistics II: Advanced Techniques in Applied Regression Methods (prerequisite: HAD5307H or CHL5201H)</td>
</tr>
<tr>
<td>HAD5318H</td>
<td>Advanced Evidence Synthesis (prerequisite: HAD5308H)</td>
</tr>
<tr>
<td>HAD5319H</td>
<td>Biostatistics III: Advanced Biostatistical Techniques for Observational Studies (prerequisites: HAD5301H, HAD5307H, HAD5309H, HAD5316H)</td>
</tr>
<tr>
<td>HAD5320H</td>
<td>Writing Mentorship</td>
</tr>
<tr>
<td>HAD6360H⌘</td>
<td>Required Research Practicum in Clinical Epidemiology (Credit/No Credit)</td>
</tr>
<tr>
<td>HAD6361H⌘</td>
<td>Optional Research Practicum in Clinical Epidemiology (Credit/No Credit)</td>
</tr>
<tr>
<td>HAD7002H⌘</td>
<td>Reading Course</td>
</tr>
</tbody>
</table>

Other IHPME courses or extra-departmental courses may be considered as elective courses and are subject to approval of the Institute of Health Policy, Management and Evaluation.

Concentration: Health Professions Education Research (HPER)

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD5011H⌘</td>
<td>Canada's Health Care System and Health Policy (Doctoral Stream)</td>
</tr>
<tr>
<td>HAD6500H⌘</td>
<td>Essential Skills in HPER</td>
</tr>
<tr>
<td>HAD6501H⌘</td>
<td>Introduction to Methods/Methodologies for HPER</td>
</tr>
<tr>
<td>HAD6502H⌘ or HAD6503H⌘</td>
<td>Survey of Critical and Interpretive Social Science Theory for HPER or Survey of Cognitive and Behavioural Sciences Theory for Health Professions Education Research</td>
</tr>
</tbody>
</table>
HAD6504H or HAD6505H | Intermediate Critical and Interpretive Social Science Methods or Intermediate Cognitive and Behavioural Sciences Methods/Methodologies for Health Professions Education Research (prerequisite: HAD6501H)

HAD6507H | Identity and Professional Life for Health Professions Education Research

HAD6508H | Sociology of the Professions

HAD6509H | The Examination: The Technology that Shapes What We Can Know, Do, and Be

HAD6510H | Academic Medicine: From the Global to the Virtual

HAD6560H | Health Professions Education Research (HPER) Comprehensive Exam

**Elective Courses**

All Health Systems Research courses and Clinical Epidemiology and Health Care Research courses or extradepartmental courses may be considered as elective courses and are subject to approval of the Institute of Health Policy, Management and Evaluation.

**Concentration: Health Systems Research**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD2003H</td>
<td>Learning Health Systems Part 1: Identifying Opportunities for System Change and Designing Sound Innovations</td>
</tr>
<tr>
<td>HAD5011H</td>
<td>Canada's Health Care System and Health Policy (Doctoral Stream)</td>
</tr>
<tr>
<td>HAD5012H</td>
<td>Patient and Caregiver Engagement in Research</td>
</tr>
<tr>
<td>HAD5013H</td>
<td>Graduate Seminar in Emotions and Ethics</td>
</tr>
<tr>
<td>HAD5022H</td>
<td>Politics, Policy, Public Health, and Health Technology</td>
</tr>
<tr>
<td>HAD5726H</td>
<td>Evaluation and Research Design in Health Informatics</td>
</tr>
<tr>
<td>HAD5727H</td>
<td>Knowledge Transfer and Exchange</td>
</tr>
<tr>
<td>HAD5728H</td>
<td>Performance Measurement in Health Care: Theory and Application</td>
</tr>
<tr>
<td>HAD5730H</td>
<td>Economic Evaluation Methods for Health Systems Research</td>
</tr>
<tr>
<td>HAD5737H</td>
<td>Tools for Implementation Science</td>
</tr>
<tr>
<td>HAD5738H</td>
<td>Advanced Methods in Economic Evaluation</td>
</tr>
<tr>
<td>HAD5740H</td>
<td>Intermediate Level Qualitative Methods</td>
</tr>
<tr>
<td>HAD5742H</td>
<td>Mixed Methods for Health Systems Research</td>
</tr>
<tr>
<td>HAD5743H</td>
<td>Evaluation II</td>
</tr>
<tr>
<td>HAD5744H</td>
<td>Applied Health Econometrics I</td>
</tr>
<tr>
<td>HAD5746H</td>
<td>Applied Health Econometrics II</td>
</tr>
<tr>
<td>HAD5747H</td>
<td>Cognitive, Social, and Information Science Theory in Health Informatics Research</td>
</tr>
<tr>
<td>HAD5748H</td>
<td>Introduction to Survey Design and Psychometrics (prerequisite: HAD5772H or equivalent)</td>
</tr>
<tr>
<td>HAD5749H</td>
<td>Knowledge to Action: Disseminating and Implementing Evidence into Practice</td>
</tr>
<tr>
<td>HAD5750H</td>
<td>Seminar in Organizational Behaviour</td>
</tr>
<tr>
<td>HAD5751H</td>
<td>AI Development and Implementation in Health Care</td>
</tr>
<tr>
<td>HAD5752H</td>
<td>Introduction to Knowledge Translation and Implementation Science</td>
</tr>
<tr>
<td>HAD5753H</td>
<td>Training for Impact: Art and Science of Health System Leadership (Credit/No Credit)</td>
</tr>
<tr>
<td>HAD5754H</td>
<td>Global Quality of Care in Health Systems</td>
</tr>
<tr>
<td>HAD5755Y</td>
<td>Health Economics Graduate Seminar Series (Credit/No Credit)</td>
</tr>
<tr>
<td>HAD5760H</td>
<td>Advanced Health Economics and Policy Analysis</td>
</tr>
<tr>
<td>HAD5763H</td>
<td>Advanced Methods in Health Services Research</td>
</tr>
<tr>
<td>HAD5771H</td>
<td>Resource Allocation Ethics</td>
</tr>
<tr>
<td>HAD5772H</td>
<td>Intermediate Statistics for Health Systems Researchers</td>
</tr>
<tr>
<td>HAD5773H</td>
<td>Introduction to Theories of Organizational Behaviour and Applications to the Health Care Sector</td>
</tr>
<tr>
<td>HAD5777H</td>
<td>Leading and Managing Change: Building Adaptive Capacity</td>
</tr>
<tr>
<td>HAD5778H</td>
<td>Comparative Health Systems and Policy</td>
</tr>
<tr>
<td>HAD5779H</td>
<td>Evidence Synthesis for Health Services, Systems and Policy Research</td>
</tr>
<tr>
<td>HAD5781H</td>
<td>Case Study Research for Health Services, Systems and Policy</td>
</tr>
<tr>
<td>HAD6506H</td>
<td>Assessment in Health Professions Education</td>
</tr>
<tr>
<td>HAD6750H</td>
<td>Advanced Health Economics and Policy Analysis II</td>
</tr>
<tr>
<td>HAD6760H</td>
<td>Introduction to Health Services and Systems Research Theory and Methods</td>
</tr>
<tr>
<td>HAD6761H</td>
<td>Outcomes and Evaluation Studies Comprehensive Course</td>
</tr>
<tr>
<td>HAD6762H</td>
<td>Organization and Management Studies Comprehensive Course</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<td>-------------</td>
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</tr>
<tr>
<td>HAD3010H</td>
<td>Fundamentals of Improvement Science</td>
</tr>
<tr>
<td>HAD3020H</td>
<td>Quality Improvement Methods</td>
</tr>
<tr>
<td>HAD3030H</td>
<td>Concepts and Strategies in Patient Safety</td>
</tr>
<tr>
<td>HAD3040Y</td>
<td>Project Practicum</td>
</tr>
<tr>
<td>HAD3041Y</td>
<td>Design and Methods for Thesis Research</td>
</tr>
<tr>
<td>HAD3050H</td>
<td>Leading and Managing Change</td>
</tr>
<tr>
<td>HAD3060H</td>
<td>Quality Improvement in Health Systems</td>
</tr>
<tr>
<td>HAD3070H</td>
<td>Health Law and Risk Management for Quality</td>
</tr>
<tr>
<td></td>
<td>Improvement and Patient Safety</td>
</tr>
</tbody>
</table>

Practicum Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD3080H</td>
<td>External Practicum</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD3025H</td>
<td>Teaching QI and Patient Safety</td>
</tr>
<tr>
<td></td>
<td>(prerequisites: HAD3010H, HAD3020H, HAD3040Y*)</td>
</tr>
<tr>
<td>HAD3090H</td>
<td>The Application of Lean in Healthcare</td>
</tr>
<tr>
<td>HAD4000H</td>
<td>Reading Course — QIPS</td>
</tr>
</tbody>
</table>
HPME: Health Administration MHSc

Master of Health Science

Program Description

The MHSc program is geared to health managers and professionals who wish to acquire a graduate education in health administration. The program's modular format allows learners to complete the degree without interrupting their careers.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME's additional admission requirements stated below.
- Normally, the equivalent of a University of Toronto B+ average or higher in each of the last two years of an appropriate bachelor's degree from a recognized university. Applicants are strongly advised to have some prior preparation in quantitative courses such as statistics, accounting, and economics.
- Full-time, relevant work experience.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 9.0 FCEs are required subjects, which include a minimum of 1.0 FCE in a field placement.
  - The remaining 1.0 FCE are elective courses.
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

HPME: Health Administration MHSc Courses

Students in the Master of Health Science program may elect to be assessed on a Credit/No Credit basis in courses marked by the symbol ⚖ up to a total of 0.5 FCE.

Required Courses

All courses are offered in modular format unless marked otherwise.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD5010Hibrated</td>
<td>Canada's Health System and Health Policy: Part I</td>
</tr>
<tr>
<td>HAD5020Hibrated</td>
<td>Canada's Health System and Health Policy: Part II</td>
</tr>
<tr>
<td>HAD5711Hibrated</td>
<td>Theory and Practice of Strategic Planning and Management in Health Services Organization</td>
</tr>
<tr>
<td>HAD5713Hibrated</td>
<td>Introduction to Population Health Management</td>
</tr>
<tr>
<td>HAD5721Hibrated</td>
<td>Strategic Management of Quality and Organizational Behaviour in Health Services Organizations</td>
</tr>
<tr>
<td>HAD5723Hibrated</td>
<td>Health Services Accounting</td>
</tr>
<tr>
<td>HAD5724Hibrated</td>
<td>Quantitative Methods for Health Services Management and Policy</td>
</tr>
<tr>
<td>HAD5725Hibrated</td>
<td>Health Economics</td>
</tr>
</tbody>
</table>
There are two options available to complete the MHI:

- **Regular MHI option:** This is designed for individuals who are not currently in a health informatics profession and are seeking a career in the field. Applicants to this option should not be employed full-time. The Regular MHI option is offered in person.

- **Executive MHI option:** This is designed for individuals with at least five years of work experience in the health-care sector and are interested in pursuing leadership positions and other career development. This program option enables students to continue professional employment and sustain career momentum while gaining specialized health informatics knowledge. The Executive MHI option is offered through online delivery. Students are required to be on campus for two residencies of 10 days each in February of Year 1 and February of Year 2.

### Regular MHI Option (Effective 2023-24)

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME’s additional admission requirements stated below.

- Appropriate bachelor's degree from a recognized university. Eligible undergraduate degrees include those in a health sciences or social sciences specialty, Regulated Health Professions in Ontario, or a computer science or information science specialty with the equivalent of a minimum mid-B average in the last academic year.

- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

- Successful applicants normally have relevant professional experience as a health services professional (for example, manager or administrator) or health sciences/clinical practitioner with demonstrated basic literacy and/or programming skills in computer applications relevant to the health sector, or a computer or information technician within a health-care setting or health software vendor.

#### Program Requirements

- Completion of **10.0 full-course equivalents (FCEs)** as follows:
  - Required coursework (7.5 FCEs)
  - Elective coursework (0.5 FCE)
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the list of CR/NCR-eligible courses below.
  - A four-month, full-time practicum or field placement (MHI2005Y; 2.0 FCEs).

- Degree requirements will be completed in 16 months across four consecutive sessions.

Students may elect to be assessed on a CR/NCR basis in courses marked by the symbol ⌘ up to a total of 0.5 FCE.
Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHI1001H</td>
<td>Information and Communication Technology in Health Informatics</td>
</tr>
<tr>
<td>MHI1002H</td>
<td>Complexity of Clinical Care</td>
</tr>
<tr>
<td>MHI2001H</td>
<td>Fundamentals of Health Informatics</td>
</tr>
<tr>
<td>MHI2002H</td>
<td>Emergent Topics in Health Informatics</td>
</tr>
<tr>
<td>MHI2003H</td>
<td>Emerging Applications in Consumer, Public, and Global Health Informatics</td>
</tr>
<tr>
<td>MHI2004H</td>
<td>Human Factors and Systems Design in Health Care</td>
</tr>
<tr>
<td>MHI2006H</td>
<td>Advanced Topics in Health Informatics (Strategic Frameworks for Solution Architecture)</td>
</tr>
<tr>
<td>MHI2007H</td>
<td>Quantitative Skills in Health Informatics</td>
</tr>
<tr>
<td>MHI2008H</td>
<td>Project Management for Health Informatics</td>
</tr>
<tr>
<td>MHI2009H</td>
<td>Evaluation Methods for Health Informatics</td>
</tr>
<tr>
<td>MHI2011H</td>
<td>Performance Measurements in Health Care: Theory and Application</td>
</tr>
<tr>
<td>MHI2017H</td>
<td>Systems Analysis and Process Innovation in Healthcare</td>
</tr>
<tr>
<td>MHI2018H</td>
<td>Knowledge Management and Systems</td>
</tr>
<tr>
<td>MHI2019H</td>
<td>Health Information Systems, Services, and Design</td>
</tr>
<tr>
<td>MHI2021H</td>
<td>Canada's Health System and Digital Health Policy</td>
</tr>
</tbody>
</table>

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years full-time

Regular MHI Option (Effective 2024-25)

These requirements are effective from May 1, 2024.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME's additional admission requirements stated below.
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME's additional admission requirements stated below.
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME's additional admission requirements stated below.
- Appropriate bachelor’s degree from a recognized university. Eligible undergraduate degrees include those in a health sciences or social sciences specialty, Regulated Health Professions in Ontario, or a computer science or information science specialty with the equivalent of a minimum mid-B average in the last academic year.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Successful applicants normally have relevant professional experience as a health services professional (for example, manager or administrator) or health sciences/clinical practitioner with demonstrated basic literacy and/or programming skills in computer applications relevant to the health sector, or a computer or information technician within a health-care setting or health software vendor.

Program Requirements

- Completion of **10.0 full-course equivalents (FCEs)** as follows:
  - Required coursework (7.5 FCEs)
  - Elective coursework (0.5 FCE)
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the list of CR/NCR-eligible courses below.
  - A four-month, full-time practicum or field placement (MHI2005Y; 2.0 FCEs).
- Degree requirements will be completed in 16 months across four consecutive sessions.
Students may elect to be assessed on a CR/NCR basis in courses marked by the symbol ⌘ up to a total of 0.5 FCE.

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MHI1001H⌘</td>
<td>Information and Communication Technology in Health Informatics</td>
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<tr>
<td>MHI1002H⌘</td>
<td>Complexity of Clinical Care</td>
</tr>
<tr>
<td>MHI2001H⌘</td>
<td>Fundamentals of Health Informatics</td>
</tr>
<tr>
<td>MHI2002H⌘</td>
<td>Emergent Topics in Health Informatics</td>
</tr>
<tr>
<td>MHI2003H⌘</td>
<td>Emerging Applications in Consumer, Public, and Global Health Informatics</td>
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<tr>
<td>MHI2004H⌘</td>
<td>Human Factors and Systems Design in Health Care</td>
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<td>Quantitative Skills in Health Informatics</td>
</tr>
<tr>
<td>MHI2008H⌘</td>
<td>Project Management for Health Informatics</td>
</tr>
<tr>
<td>MHI2009H⌘</td>
<td>Evaluation and Performance Measurements in Health Care</td>
</tr>
<tr>
<td>MHI2017H⌘</td>
<td>Systems Analysis and Process Innovation in Healthcare</td>
</tr>
<tr>
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</tr>
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<td>Data Governance and Interoperability</td>
</tr>
</tbody>
</table>

### Elective Courses

Students are encouraged to select an elective that allows them to focus on their individual areas of interest in health informatics. For this reason, the MHI program does not impose a selection of electives. Students are free to choose from all graduate courses across all disciplines at the University of Toronto. All selections are subject to approval in advance by the Program Director and the IHPME Chair.

### Program Length

- **4 sessions full-time** (typical registration sequence: F/W/S/F)

### Time Limit

- **3 years full-time**

### HPME: Health Informatics MHI Executive Option

### Master of Health Informatics

#### Program Description

The Master of Health Informatics (MHI) is a professional program which provides graduates with expertise in clinical information and communication technologies (ICTs) required to lead organizational and health system change. The MHI degree program prepares health informaticians to bridge the gaps between clinicians and ICT specialists.

There are two options available to complete the MHI:

- **Regular MHI option**: This is designed for individuals who are not currently in a health informatics profession and are seeking a career in the field. Applicants to this option should not be employed full-time. The Regular MHI option is offered in person.

- **Executive MHI option**: This is designed for individuals with at least five years of work experience in the health-care sector and are interested in pursuing leadership positions and other career development. This program option enables students to continue professional employment and sustain career momentum while gaining specialized health informatics knowledge. The Executive MHI option is offered through online delivery. Students are required to be on campus for two residencies of 10 days each in February of Year 1 and February of Year 2.
Executive MHI Option (Effective 2023-24)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university. Eligible undergraduate degrees include those in a health sciences or social sciences specialty, Regulated Health Professions in Ontario, or a computer science or information science specialty with the equivalent of a minimum mid-B average in the last academic year.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Successful applicants normally have relevant professional experience (at least five years) as a health services professional (for example, manager or administrator) or health sciences/clinical practitioner with demonstrated basic literacy and/or programming skills in computer applications relevant to the health sector, or a computer or information technician within a health care setting or health software vendor.
- Successful applicants may be actively employed in a health informatics role or capacity.

Program Requirements

- Completion of **10.0 full-course equivalents (FCEs)** as follows:
  - Required coursework (7.5 FCEs)
  - Elective coursework (1.0 FCE)
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the list of CR/NCR-eligible courses below.
  - A four-month, employer-sponsored or mentor-supervised Health Informatics Project (MHI2015Y; 1.5 FCEs).
- The Executive MHI degree requirements will be completed in 22 months across six consecutive sessions.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MHI1001H</td>
<td>Information and Communication Technology in Health Informatics</td>
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<tr>
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<td>Complexity of Clinical Care</td>
</tr>
<tr>
<td>MHI2001H</td>
<td>Fundamentals of Health Informatics</td>
</tr>
<tr>
<td>MHI2002H</td>
<td>Emergent Topics in Health Informatics</td>
</tr>
<tr>
<td>MHI2003H</td>
<td>Emerging Applications in Consumer, Public and Global Health Informatics</td>
</tr>
<tr>
<td>MHI2004H</td>
<td>Human Factors and Systems Design in Health Care</td>
</tr>
<tr>
<td>MHI2006H</td>
<td>Advanced Topics in Health Informatics (Strategic Frameworks for Solution Architecture)</td>
</tr>
<tr>
<td>MHI2007H</td>
<td>Quantitative Skills in Health Informatics</td>
</tr>
<tr>
<td>MHI2008H</td>
<td>Project Management for Health Informatics</td>
</tr>
<tr>
<td>MHI2009H</td>
<td>Evaluation Methods for Health Informatics</td>
</tr>
<tr>
<td>MHI2011H</td>
<td>Performance Measurements in Health Care: Theory and Application</td>
</tr>
<tr>
<td>MHI2017H</td>
<td>Systems Analysis and Process Innovation in Healthcare</td>
</tr>
<tr>
<td>MHI2018H</td>
<td>Knowledge Management Systems</td>
</tr>
<tr>
<td>MHI2019H</td>
<td>Health Information Systems, Services, and Design</td>
</tr>
<tr>
<td>MHI2021H</td>
<td>Canada's Health System and Digital Health Policy</td>
</tr>
</tbody>
</table>

Practicum Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHI2015Y</td>
<td>Health Informatics Project</td>
</tr>
</tbody>
</table>

Elective Courses

Students are encouraged to select two electives that allow them to focus on their individual areas of interest in health informatics. For this reason, the MHI program does not impose a selection of electives. Students are free to choose from all graduate courses across all disciplines at the University of Toronto. All selections are subject to approval in advance by the Program Director and the IHPME Chair.

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>MHI2013H</td>
<td>Data Visualization in Health Care</td>
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<td>MHI2016H</td>
<td>Health Informatics Project Extension</td>
</tr>
<tr>
<td>MHI2020H</td>
<td>Leadership for Digital Health Transformation</td>
</tr>
<tr>
<td>MHI3000H</td>
<td>Independent Reading for Health Informatics</td>
</tr>
</tbody>
</table>

Program Length

- **6 sessions full-time (S/F/W/S/F/W)**

Time Limit

- **3 years full-time**
Executive MHI Option (Effective 2024-25)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPME's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university. Eligible undergraduate degrees include those in a health sciences or social sciences specialty, Regulated Health Professions in Ontario, or a computer science or information science specialty with the equivalent of a minimum mid-B average in the last academic year.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Successful applicants normally have relevant professional experience (at least five years) as a health services professional (for example, manager or administrator) or health sciences/clinical practitioner with demonstrated basic literacy and/or programming skills in computer applications relevant to the health sector, or a computer or information technician within a health care setting or health software vendor.
- Successful applicants may be actively employed in a health informatics role or capacity.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - Required coursework (7.5 FCEs)
  - Elective coursework (1.0 FCE)
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the list of CR/NCR-eligible courses below.
  - A four-month, employer-sponsored or mentor-supervised Health Informatics Project (MHI2015Y; 1.5 FCEs).
- The Executive MHI degree requirements will be completed in 22 months across six consecutive sessions.
- The Executive MHI option is offered through online delivery. Students are required to be on campus for two residencies of 10 days each in February of Year 1 and February of Year 2.

Required Courses

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Elective Courses

Students are encouraged to select two electives that allow them to focus on their individual areas of interest in health informatics. For this reason, the MHI program does not impose a selection of electives. Students are free to choose from all graduate courses across all disciplines at the University of Toronto. All selections are subject to approval in advance by the Program Director and the IHPME Chair.

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</table>
Program Length

6 sessions full-time (S/F/W/S/F/W)

Time Limit

3 years full-time
History

History: Introduction

Faculty Affiliation
Arts and Science

Degree Programs

History

MA and PhD

- Fields by Chronology or Geography:
  - African History;
  - American History;
  - Atlantic World History;
  - British and Irish History;
  - Canadian History;
  - East Asian History;
  - European History;
  - Latin American and Caribbean History;
  - Medieval History;
  - Mediterranean and Middle Eastern History;
  - Russian History;
  - South Asian History;
  - Southeast Asian History

- Fields by Theme:
  - Contemporary International History (MA only);
  - Cultural and Intellectual History;
  - Food History;
  - History of Conflict, Violence, and Genocide;
  - History of Economy, Technology, and Society;
  - History of Empire, Colonialism, and Indigeneity;
  - History of Gender, Sex, and Sexualities;
  - History of Medicine;
  - History of Migration/Diaspora;
  - History of Religion and Society;
  - History of State, Politics, and Law;
  - International Relations;
  - Social History

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Book History and Print Culture**
  - History, MA, PhD
- **Contemporary East and Southeast Asian Studies**
  - History, MA
- **Diaspora and Transnational Studies**
  - History, MA, PhD
- **Ethnic, Immigration and Pluralism Studies**
  - History, MA, PhD
- **Food Studies**
  - History, MA, PhD
- **Jewish Studies**
  - History, MA, PhD
- **Sexual Diversity Studies**
  - History, MA, PhD
- **South Asian Studies**
  - History, MA, PhD

- **Women and Gender Studies**
  - History, MA, PhD

Overview

The Department of History offers a broadly diversified program of graduate studies leading to the **Master of Arts** and **Doctor of Philosophy** degrees. There are opportunities to study and research several geographic, chronological, and thematic areas of history. Visit the departmental website for descriptions of specific fields.

The University of Toronto also offers rich resources outside the department to support the study of history. The Robarts Research Library, unrivalled in Canada and among the leading university libraries in North America, provides a foundation for a wide range of study. Specialized collections are located elsewhere in the University including in a number of centres and research institutes. The Centre for Medieval Studies and the Pontifical Institute of Mediaeval Studies have particularly strong resources for European and British medieval history. The Munk School of Global Affairs and Public Policy; the Institute for the History and Philosophy of Science and Technology; the Centre for Criminology and Sociolegal Studies; the Institute for Urban and Community Studies; as well as the Centre for European, Russian, and Eurasian Studies afford additional opportunities for interdepartmental work. The department participates in a number of interdisciplinary collaborative specializations.

Contact and Address

Web: [history.utoronto.ca](http://history.utoronto.ca)
Email: history.gradadmin@utoronto.ca
Telephone: (416) 978-3369

Department of History
University of Toronto
Sidney Smith Hall
Room 2074, 100 St. George Street
Toronto, Ontario M5S 3G3
Canada

History: Graduate Faculty

Full Members

Anastakis, Dimitry - PhD
Austin, Robert - BA, MA, PhD
Bartlett, Kenneth - BA, MA, PhD
Bender, Daniel Eric - BA, PhD
Bergen, Doris - MA, PhD
Bertram, L.K. - MA, PhD
Birla, Ritu - BA, MPH, PhD
Bohaker, Heidi - BA, BEd, MA, DPhil
Bothwell, Robert - BA, AM, PhD
Brown, Elspeth - MA, PhD
Chen, Li - BA, MA, AM, JD, PhD
Chin, Carol - BA, MA, PhD
Cochelin, Isabelle - DipdESup, BA, MA, PhD
Cohen, Paul - AM, PhD
Coleman, Kevin - PhD
Everett, Nicholas - BA, MA, PhD
Fujitani, Takashi - BA, MA, PhD
Gervers, Michael - BA, MA, PhD
Gettler, Brian - BS, MA, PhD
Halpern, Rick - PhD
The Department of History offers a broadly diversified program of graduate studies leading to the Master of Arts degree. There are opportunities to study and research several geographic, chronological, and thematic areas of history. Visit the departmental website for descriptions of specific fields. The requirements vary for the field in Contemporary International History; see the admission and program requirements below.

The MA program can be taken on a full-time or part-time basis.

**MA Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of History's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with at least a B+ standing.
- Successful completion of at least 6.0 full-course equivalents (FCEs) in history. Applicants without adequate history training may be required to complete an appropriate number of undergraduate history courses before being considered for admission. In rare cases, an applicant may be admitted to the MA program but will be required to do one or two courses in addition to the MA program requirements.
- In addition to the School of Graduate Studies online application form, applicants must submit:
  - an Application Information Form
  - three letters of recommendation
  - a 500-word specific research proposal outlining a precise field and area of historical investigation
  - a writing sample of no more than 3,000 words.
Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English must demonstrate proficiency in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with scores of at least:
- paper-based TOEFL exam: 600 with 5 on the Test of Written English (TWE)
- Internet-based TOEFL exam: 100/120 with 22/30 on the writing and speaking sections.

Program Requirements

- Students may complete the MA by:
  - coursework and research paper
  - coursework and thesis (with special permission).
- Students must achieve at least an overall B average in their courses to maintain standing.
- Students must also demonstrate competency in a language other than English, to be assessed in a manner approved by the Associate Chair (Graduate) or designate.

Coursework and Research Paper

- Students must successfully complete a total of 3.5 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: HIS1997H
  - 1.0 FCE: HIS2000Y0 MA essay
  - 2.0 FCE: HIS courses. Normally, up to 1.0 FCE may be taken outside the Department of History with the approval of the Associate Chair, Graduate.
- Full-time MA students are expected to complete all degree requirements within 12 months of entering the program.

Coursework and Thesis

- Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: HIS1997H
  - 1.5 FCE: present an MA thesis.
- The thesis MA might take longer than the coursework MA. The thesis must be presented by full-time students within three years of entering the program; part-time students must present within six years of entering the program.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

0 Course that may continue over a program. The course is graded when completed.

Field: Contemporary International History

The field in Contemporary International History (CIH) focuses on the historical roots and genealogies of contemporary international issues. It emphasizes the development of research and analytical skills that will enrich decision-making in an increasingly interconnected, but tension-filled global environment. The field is designed to prepare students in research, analytical, and communication skills for decision-making in non-academic careers in government, international organizations, non-governmental organizations, media, business and finance, law, and the cultural sector.

The coursework-plus-thesis option is not permitted in this field.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of History's additional admission requirements stated below.
- An appropriate bachelor's degree, or equivalent, from a recognized university with successful completion of at least 6.0 full-course equivalents (FCEs) in History with a B+ average.
- A B+ average (grade point average of 3.3), or equivalent, in the final 5.0 FCEs of the BA.
- In addition to the School of Graduate Studies online application form, applicants must submit:
  - an Application Information Form
  - three letters of recommendation
  - a 500-word specific research proposal outlining a precise field and area of historical investigation
  - a writing sample of no more than 3,000 words.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English must demonstrate proficiency in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with scores of at least:
  - paper-based TOEFL exam: 600 with 5 on the Test of Written English (TWE)
  - Internet-based TOEFL exam: 100/120 with 22/30 on the writing and speaking sections.

Program Requirements

- Coursework. Students must successfully complete a total of 2.5 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: HIS1997H
  - 0.5 required FCE: HIS1900H or HIS1901H
  - the remaining 1.5 FCE can be taken within or outside the History department.
  - HIS2000Y0, a research project defined in consultation with a supervisor and approved by the CIH Coordinator.
- Students must achieve at least an overall B average in their courses to maintain standing.
- Students must also demonstrate competency in a language other than English, to be assessed in a manner approved by the Associate Chair (Graduate) or designate.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time
Time Limit

3 years full-time;
6 years part-time

◊ Course that may continue over a program. The course is graded when completed.

History: History PhD

Doctor of Philosophy

Program Description

The Department of History offers a broadly diversified program of graduate studies leading to the Doctor of Philosophy degree. There are opportunities to study and research several geographic, chronological, and thematic areas of history. Visit the departmental website for descriptions of specific fields.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate MA degree or 2) direct entry following completion of an appropriate bachelor’s degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of History’s additional admission requirements stated below.
- Normally, applicants may enter the PhD program with an MA degree in history or its equivalent with an A– average or better.
- Applicants must satisfy the department of their ability to do independent research at an advanced level.
- In addition to the School of Graduate Studies online application form, applicants must submit:
  - an Application Information Form
  - three letters of recommendation
  - a 500-word specific research proposal outlining a precise field and area of historical investigation
  - a writing sample of no more than 6,000 words.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English must demonstrate proficiency in the English language through the successful completion of a recognized English-language proficiency examination as outlined in the School of Graduate Studies General Regulations.

Program Requirements

- Coursework. With MA degree in history: students must successfully complete a total of 2.0 full-course equivalents (FCEs) with a B+ average throughout the coursework.
- Residence requirement. Residence means students must be in such geographical proximity as to be able to visit the campus regularly and participate fully in the University’s activities associated with the program. PhD students must maintain geographical proximity to the campus until they have passed their field examinations but no longer than a period of two years.
- Comprehensive examinations. At the beginning of their programs, students consult with their supervisor and the Associate Chair, Graduate to determine their fields. Two options are available: two majors or one major and two minors. Major fields should coincide with the subject area(s) that the student has chosen for the thesis. Minors should be in different areas. The comprehensive field examinations consist of a written examination in each field and a common oral examination covering all fields. Students are required to take their field examinations by the spring of Year 2, but they are strongly advised to take them as soon as possible after the completion of their coursework. Examinations are held in January and April. Examinations cannot be postponed beyond the spring of Year 2 without permission of the Associate Chair, Graduate. The department’s website lists the fields offered.
- Language requirements vary with the student’s major area of study. If not already so qualified, a student must qualify in one language other than English normally by the beginning of Year 2 and no later than 12 months after the successful completion of the comprehensive examinations and may be asked to qualify in other program-related languages. All language requirements are subject to the approval of the Associate Chair, Graduate.
- Thesis: When all of the above requirements are completed, the candidate will proceed to write the PhD thesis and defend it at a Doctoral Final Oral Examination. The thesis must be a piece of original scholarship, approximately 350 pages (90,000 words) in length, exclusive of notes and bibliography. Thesis preparation is guided by a committee consisting of the major supervisor and two other faculty members. The thesis must be presented within six years of first enrolment in the full-time PhD program.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of History’s additional admission requirements stated below.
- Exceptional applicants may enter the PhD program by direct entry from the BA with an A– average or better.
- Applicants must satisfy the department of their ability to do independent research at an advanced level.
- In addition to the School of Graduate Studies online application form, applicants must submit:
  - an Application Information Form
  - three letters of recommendation
- a 500-word specific research proposal outlining a precise field and area of historical investigation
- a writing sample of no more than 6,000 words.

- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English must demonstrate proficiency in the English language through the successful completion of a recognized English-language proficiency examination as outlined in the School of Graduate Studies General Regulations.

### Program Requirements

- **Coursework.** By direct entry: students must successfully complete a total of 4.5 full-course equivalents (FCEs), 0.5 of which must be HIS1997H. Students must maintain an A– average in their first 2.0 FCEs in order to continue in the program.

- **Residence requirement.** Residence means students must be in such geographical proximity as to be able to visit the campus regularly and participate fully in the University's activities associated with the program. PhD students must maintain geographical proximity to the campus until they have passed their field examinations but no longer than a period of two years.

- **Comprehensive examinations.** At the beginning of their programs, students consult with the Associate Chair, Graduate to determine their fields, and students will be assigned advisors. Two options are available: two majors or one major and two minors. Major fields should coincide with the subject area(s) that the student has chosen for the thesis. Minors should be in different areas. The comprehensive field examinations consist of a written examination in each field and a common oral examination covering all fields. Students are required to take their field examinations by the spring of Year 3, but they are strongly advised to take them as soon as possible after the completion of their coursework. Examinations are held in January and April. Examinations cannot be postponed beyond the spring of Year 3 without permission of the Associate Chair, Graduate. The department's website lists the fields offered.

- **Language requirements** vary with the student's major area of study. If not already so qualified, a student must qualify in one language other than English normally by the beginning of Year 3 and no later than 12 months after the successful completion of the comprehensive examinations and may be asked to qualify in other program-related languages. All language requirements are subject to the approval of the Associate Chair, Graduate.

- **Thesis:** When all of the above requirements are completed, the candidate will proceed to write the PhD thesis and defend it at a Doctoral Final Oral Examination. The thesis must be a piece of original scholarship, approximately 350 pages (90,000 words) in length, exclusive of notes and bibliography. Thesis preparation is guided by a committee consisting of the major supervisor and two other faculty members. The thesis must be presented within seven years of first enrolment in the direct-entry PhD.

### Program Length

- **5 years**

### Time Limit

- **7 years**

### History: History MA, PhD Courses

Not all courses are offered every year. Please consult the department's list of current course offerings.

<table>
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<td>Topics in History</td>
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<td>Theory and History</td>
</tr>
<tr>
<td>HIS1004H</td>
<td>History and Biopolitics</td>
</tr>
<tr>
<td>HIS1007H</td>
<td>Theories, Histories, Imaginaries: Themes in Technoscience</td>
</tr>
<tr>
<td>HIS1008H</td>
<td>The Practice of Public History and Archival Research</td>
</tr>
<tr>
<td>HIS1009H</td>
<td>Empire and Governmentality: Economy, Culture, and Liberal Governance</td>
</tr>
<tr>
<td>HIS1010H</td>
<td>New Historiographies of Capitalism: Globality and Making Space, Time, Subjects</td>
</tr>
<tr>
<td>HIS1011H</td>
<td>Queer and Trans Oral History</td>
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<tr>
<td>HIS1012H</td>
<td>Indigenous and Decolonial Science and Technology Studies</td>
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<tr>
<td>HIS1013H</td>
<td>Intellectuals and Decolonization</td>
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<tr>
<td>HIS1014H</td>
<td>Neoliberalism in North America</td>
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<tr>
<td>HIS1015H</td>
<td>Oral History Theory and Practice</td>
</tr>
<tr>
<td>HIS1016H</td>
<td>Historical Readings in Gender and Sexuality</td>
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<tr>
<td>HIS1017H</td>
<td>History and Social Media: Critical Histories for Big Publics</td>
</tr>
<tr>
<td>HIS1018H</td>
<td>History as Creative Nonfiction</td>
</tr>
<tr>
<td>HIS1019H</td>
<td>Science, Nature, and Empire</td>
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<tr>
<td>HIS1031H</td>
<td>Images as History: Photography, Historical Method, and Conceptualizing Visuality</td>
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<tr>
<td>HIS1032H</td>
<td>Modernity and Its Visual Cultures</td>
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<tr>
<td>HIS1040H</td>
<td>Maps in History: Power and Identity, Conflict and Imagination</td>
</tr>
<tr>
<td>HIS1104H</td>
<td>Natives and Empires: Colonial History of the Americas, 1492–1800</td>
</tr>
<tr>
<td>HIS1105H</td>
<td>Colonial North America, 1600–1783</td>
</tr>
<tr>
<td>HIS1106H</td>
<td>Topics in Canadian Social History</td>
</tr>
<tr>
<td>HIS1107H</td>
<td>Religion, Culture, and Society in Canada (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS1113H</td>
<td>Politics and Society in North American History</td>
</tr>
<tr>
<td>HIS1117H</td>
<td>Canada: Colonialism/Postcolonialism</td>
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<tr>
<td>HIS1118H</td>
<td>Canada By Treaty: Alliances, Title Transfers, and Land Claims</td>
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<tr>
<td>HIS1142Y</td>
<td>Canadian Foreign Relations, 1940–2003 (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS1168H</td>
<td>History of the Sex Trade in Canadian and Comparative Contexts</td>
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<tr>
<td>HIS1180H</td>
<td>Race in the USA and Canada</td>
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<tr>
<td>HIS1200H</td>
<td>Readings in European Intellectual History</td>
</tr>
<tr>
<td>HIS1203H</td>
<td>Jus Commune</td>
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<tr>
<td>HIS1204H</td>
<td>Topics in Medieval Church History</td>
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<tr>
<td>HIS1213H</td>
<td>Medieval Institutes of Perfection (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1215H</td>
<td>Social Change in Medieval England, 1154–1279</td>
</tr>
<tr>
<td>HIS1221H</td>
<td>Topics in Early Modern European Social History</td>
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<tr>
<td>HIS1228H</td>
<td>Revolutions in History: The Annales School in Context</td>
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<tr>
<td>HIS1230H</td>
<td>The Sexes in the Western World, 1450–1650</td>
</tr>
<tr>
<td>HIS1232H</td>
<td>European Colonialism, 1870–1970: A Comparative History</td>
</tr>
<tr>
<td>HIS1233H</td>
<td>Colonial Urbanism in the Mediterranean World, 1800–1950</td>
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<tr>
<td>HIS1234H</td>
<td>Readings in Early Modern French History</td>
</tr>
<tr>
<td>HIS1235H</td>
<td>Histories in the Mediterranean: From Braudel to Post-Colonialism</td>
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<tr>
<td>HIS1236H</td>
<td>Modern French Colonial History</td>
</tr>
<tr>
<td>HIS1237H</td>
<td>France: 1870–1968</td>
</tr>
<tr>
<td>HIS1245H</td>
<td>Gender in Europe 1500–1950</td>
</tr>
<tr>
<td>HIS1265H</td>
<td>Atrocities and Memory in Postwar Europe and North America</td>
</tr>
<tr>
<td>HIS1268H</td>
<td>The Holocaust and World War II</td>
</tr>
<tr>
<td>HIS1269H</td>
<td>The Social History of Medicine in the Nineteenth and Twentieth Centuries (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS1270H</td>
<td>History of Psychiatry and Psychiatric Illness (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS1272H</td>
<td>Topics in Twentieth-Century European History</td>
</tr>
<tr>
<td>HIS1273H</td>
<td>Taking the Waters: Spas and Water Cures in History</td>
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<tr>
<td>HIS1275H</td>
<td>Imperial Germany, 1871–1918</td>
</tr>
<tr>
<td>HIS1278H</td>
<td>Topics in 20th Century German History</td>
</tr>
<tr>
<td>HIS1279H</td>
<td>World War II in East Central Europe (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1281H</td>
<td>History of Real Socialism</td>
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<tr>
<td>HIS1286H</td>
<td>Categories of Imperial Russian Social History</td>
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<tr>
<td>HIS1287H</td>
<td>Polish Jews Since the Partitions of Poland (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1288H</td>
<td>Russia's Empire</td>
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<tr>
<td>HIS1289H</td>
<td>The Cold War Through Its Archives</td>
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<tr>
<td>HIS1290H</td>
<td>Topics in Imperial Russian History</td>
</tr>
<tr>
<td>HIS1293Y</td>
<td>Kievan Rus’ (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1296H</td>
<td>Stalinism and After: Beyond Cold War History</td>
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<tr>
<td>HIS1301H</td>
<td>History of Food and Drink</td>
</tr>
<tr>
<td>HIS1416H</td>
<td>Early Modern English Popular Culture, 1500–1800</td>
</tr>
<tr>
<td>HIS1435H</td>
<td>Studies in Victorian Society</td>
</tr>
<tr>
<td>HIS1440H</td>
<td>Irish Nationalism in Canada, 1858–1870 (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1441H</td>
<td>Ireland, Race, and Empires</td>
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<tr>
<td>HIS1531H</td>
<td>American Political History Since 1877</td>
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<tr>
<td>HIS1532H</td>
<td>American Foreign Policy in the Cold War</td>
</tr>
<tr>
<td>HIS1533H</td>
<td>Gender and International Relations (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1538H</td>
<td>Reading in U.S. History</td>
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<tr>
<td>HIS1555H</td>
<td>Gender and Slavery in the Atlantic World, 17th to 19th Century (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1662H</td>
<td>Rethinking Modernity Through Japan</td>
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<tr>
<td>HIS1664H</td>
<td>Religion and Society in Southeast Asia</td>
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<tr>
<td>HIS1673H</td>
<td>Critical Historiography of Late Imperial and Modern China</td>
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<tr>
<td>HIS1675H</td>
<td>Imperial Circulation and Diasporic Flows in the British Empire</td>
</tr>
<tr>
<td>HIS1677H</td>
<td>Empire and Nation in Modern East Asia</td>
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<tr>
<td>HIS1678H</td>
<td>War and Memory in Twentieth-Century East Asia</td>
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<tr>
<td>HIS1702H</td>
<td>Colonial Violence: Comparative Histories</td>
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<tr>
<td>HIS1704H</td>
<td>Colloquium in Latin American and Caribbean History</td>
</tr>
<tr>
<td>HIS1705H</td>
<td>Trends in Women and Gender History in the Global South</td>
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<tr>
<td>HIS1707H</td>
<td>Topics in African History</td>
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<tr>
<td>HIS1708H</td>
<td>Labour in the Age of Imperialism</td>
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<tr>
<td>HIS1710H</td>
<td>Slave Emancipation in the Atlantic World</td>
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<tr>
<td>HIS1712H</td>
<td>Topics on the History of Ethiopia</td>
</tr>
<tr>
<td>HIS1725H</td>
<td>Topics in Latin American History: Race, Gender, and Citizenship</td>
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<tr>
<td>HIS1784H</td>
<td>The Islamic Revolution</td>
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<tr>
<td>HIS1785H</td>
<td>International Relations in the Middle East</td>
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<tr>
<td>HIS1800H</td>
<td>Global Histories of the Archives</td>
</tr>
<tr>
<td>HIS1802H</td>
<td>Slavery in North America (joint undergraduate/graduate)</td>
</tr>
<tr>
<td>HIS1805H</td>
<td>Human Rights and Empire (exclusion: HIS1860H)</td>
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<tr>
<td>HIS1806H</td>
<td>Histories of the Carceral State</td>
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<tr>
<td>HIS1810H</td>
<td>Indigenous Economies and Imperialism</td>
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<tr>
<td>HIS1820H</td>
<td>Law, Space, and History</td>
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<tr>
<td>HIS1825H</td>
<td>Changing Skylines: (Re)mapping Urban History in the Global Age</td>
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<tr>
<td>HIS1830H</td>
<td>Critical Approaches to Historical Anthropology</td>
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<tr>
<td>HIS1860H</td>
<td>Global Rights: A Critical History</td>
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<tr>
<td>HIS1890H</td>
<td>Regimes of Value</td>
</tr>
<tr>
<td>HIS1900H</td>
<td>History in International Affairs</td>
</tr>
<tr>
<td>HIS1901H</td>
<td>Approaches and Methodologies in Contemporary International History</td>
</tr>
<tr>
<td>HIS1997H</td>
<td>The Practice of History (Credit/No Credit)</td>
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<tr>
<td>HIS1998H</td>
<td>Reading Course</td>
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<tr>
<td>HIS1999H</td>
<td>Reading Course</td>
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<tr>
<td>HIS2000Y</td>
<td>Directed Research</td>
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<tr>
<td>JHL1282H</td>
<td>Comparative Totalitarian Culture</td>
</tr>
<tr>
<td>JHL1680H</td>
<td>Revolutionary Women’s Cultures in East Asia, Early to Mid 20th Century</td>
</tr>
<tr>
<td>JHP1289Y</td>
<td>Twentieth-Century Ukraine (joint graduate/undergraduate)</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.*

**Courses in Other Departments Taught by History Faculty**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COL5027H</td>
<td>Memory, Trauma, and History</td>
</tr>
<tr>
<td>MST1110H</td>
<td>Diplomatics and Diplomatic Editing</td>
</tr>
<tr>
<td>MST3205H</td>
<td>Violence in Medieval Society</td>
</tr>
<tr>
<td>MST3225Y</td>
<td>Jews and Christians in Medieval and Renaissance Europe</td>
</tr>
</tbody>
</table>

**Other Departments**

Students may take courses from other departments for graduate history credit with permission of the Associate Chair, Graduate. Interested students should consult the appropriate calendar entries and departmental websites for current course offerings.
History and Philosophy of Science and Technology

HPST: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

History and Philosophy of Science and Technology

MA and PhD

- Fields:
  - History of Mathematics and Physical Sciences;
  - History of Medicine and Life Sciences;
  - History of Technology;
  - Philosophy of Science

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Book History and Print Culture
  - History and Philosophy of Science and Technology, MA, PhD
- Sexual Diversity Studies
  - History and Philosophy of Science and Technology, MA, PhD

Overview

The Institute for the History and Philosophy of Science and Technology (IHPST) conducts research, offers advanced studies programs, and serves as a focus for University-wide interest in its field.

Courses are open to all graduate students and are suitable complements for specialists in science or the humanities. Students are encouraged to participate in the IHPST colloquia, which are open to the University of Toronto community.

Contact and Address

Web: www.ihpst.utoronto.ca
Email: ihpst.info@utoronto.ca
Telephone: (416) 978-5397
Fax: (416) 978-3003

Institute for the History and Philosophy of Science and Technology (IHPST)
University of Toronto
Old Victoria College
Room 316, 91 Charles Street West
Toronto, Ontario M5S 1K7
Canada

HPST: Graduate Faculty

Full Members

Baigrie, Brian - BA, MA, PhD
Berkovitz, Joseph - BSc, MA, PhD
Birm, Anne-Emmanuelle - BA, MA, DSc
Burton, Elise K. - BA, AM, PhD
Dacome, Lucia - BA, MPH, PhD
Fehige, Yiftach - BSc, MTh, MPH, PhD, DTh
Jones-Imhotep, Edward - BA, PhD (Director)
Katzer, Joel - BSc, MA, PhD
Krementsov, Nikolai - PhD
Lightman, Bernard - BA, MA, PhD
McLaughlin, Neil - BA, MA, PhD
Misak, Cheryl - BA, MA, DPhil, FRSC
Richmond, Scott - BA, PhD
Russon, John - BA, MA, PhD
Satsuka, Shiho - BA, BA, MA, PhD
Solovey, Mark - BA, MA, AM, PhD
Upshur, Ross Edward - BA, MA, MSc, MD
Vicedo Castello, Marga - BA, MA, PhD, PhD
Vold, Karina - BA, PhD
Walsh, Denis - BA, BSc, MPH, PhD, PhD
Yeang, Chen-Pang - BS, SM, PhD, ScD
Zakar, Adrien - MA, PhD

Members Emeriti

Brown, James - BA, MA, PhD, FRSC
Fraser, Craig - BA, MA, PhD
Thompson, Paul - BA, MA, PhD

Associate Members

Berkhout, Suze Gillian - BSc
Mitchell, Mary - BA, BA, JD, MA, MA, PhD, PhD
Nath, Anjali - BA, MA, PhD
Steigerwald, Joan - BA, MA, PhD

HPST: History and Philosophy of Science and Technology MA

Master of Arts

Program Description

Admission to the MA is highly selective and competitive. Acceptance is based on a combination of grades, references, academic and professional accomplishments, areas of interest, and a sample of written work. The IHPST website contains detailed instructions for completing admission applications. Applications must be accompanied by transcripts, a statement of interest, letters of reference, a curriculum vitae, and a writing sample.

Applicants who wish to take one or more of the courses offered by IHPST as non-degree students should apply for admission as Special Students. The application procedures are the same as for those of the MA program, but the deadline for applications is May 1.

The MA program can be taken on a full-time or part-time basis.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPST's additional admission requirements stated below.
- A bachelor's degree from a recognized university with an average grade of at least B+ in the final two years of undergraduate work. While the majority of accepted students exceed this standard, the very broad scope of the field and the variety of fruitful approaches to it also imply that many different backgrounds are appropriate. Accordingly, grades are only one criterion used to judge applicants.
- Applications must be accompanied by a 300- to 500-word statement of interest indicating the applicant's areas of interest in history and/or philosophy of science and technology at the graduate level. A writing sample of no more than 3,000 words (not to exceed 20 pages) is required.
- Application deadline is January 15 of every year.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must submit results of the Test of English as a Foreign Language (TOEFL) and Test of Written English (TWE) with the following minimum scores:
  - Paper-based TOEFL: 580 and 5 on the TWE
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

- **Coursework.** Students must complete a minimum of 3.0 full-course equivalents (FCEs). A student's curriculum is arranged in consultation with the student's faculty advisor and the Director of Graduate Studies. Students make course choices consistent with a commitment to either:
  - One of the three history fields (History of Mathematics and Physical Sciences; History of Medicine and Life Sciences; History of Technology), or
  - The philosophy field (Philosophy of Science).
- **Students in a history field** must:
  - Complete HPS1000H *Introduction to the History and Philosophy of Science* (0.5 FCE) in the first session
  - Complete 1.0 FCE from the HPS 2000 series
  - Complete 0.5 FCE from the HPS 3000 series
  - Complete elective courses (1.0 FCE)
  - Demonstrate a reading knowledge of French or German; language instruction courses are not counted in the 3.0 FCEs required for the degree.
- **Students in the philosophy field** must:
  - Complete HPS1000H *Introduction to the History and Philosophy of Science* (0.5 FCE) in the first session
  - Complete 0.5 FCE from the HPS 2000 series
  - Complete 1.0 FCE from the HPS 3000 series
  - Complete elective courses (1.0 FCE)
  - Demonstrate proficiency in introductory logic, a reading knowledge of French, or a reading knowledge of German; logic and language instruction courses are not counted in the 3.0 FCEs required for the degree.
- **Students in either field who wish to pursue independent research** may take HPS1500H *Research Paper* (0.5 FCE), in which they carry out a self-initiated research project under the direction of a faculty advisor.

Program Length

- 3 sessions full-time (typical registration sequence: F/W/S);
- 15 sessions part-time

Time Limit

- 3 years full-time;
- 6 years part-time

HPST: History and Philosophy of Science and Technology PhD

Doctor of Philosophy

Program Description

Admission to the PhD program is highly selective and competitive. Acceptance is based on a combination of grades, references, academic and professional accomplishments, areas of interest, and a sample of written work. The IHPST website contains detailed instructions for completing admission applications. Applications must be accompanied by transcripts, a statement of interest, letters of reference, a curriculum vitae, and a writing sample. The application deadline is January 15 of every year.

Applicants must be admitted via one of the following routes: 1) following completion of a master's degree in History and Philosophy of Science and Technology or 2) direct entry following completion of an appropriate bachelor's degree.

With the approval of the Director of Graduate Studies, some applicants may be admitted to a flexible-time PhD option. This option will benefit mature students who remain active in their professional careers during the PhD, such as physicians, engineers, educators, and IT professionals. The option will enable them to engage in supervised research in the history and/or philosophy of their profession.

Applicants who wish to take one or more of the courses offered by IHPST as non-degree students should apply for admission as Special Students. The application procedures are the same as for those of the MA program, but the deadline for applications is May 1.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPST's additional admission requirements stated below.
Program Requirements

- Students admitted on the basis of a master's degree must:
  - Complete 3.0 full-course equivalents (FCEs); a student whose MA degree does not exhibit sufficient breadth is required to take additional courses.
  - Make course choices consistent with a commitment to either:
    - One of the three history fields (History of Mathematics and Physical Sciences; History of Medicine and Life Sciences; History of Technology); or
    - The philosophy field (Philosophy of Science).
- Arrange the balance of their curriculum in consultation with the Director of Graduate Studies and faculty instructors.
- Submit a proposal for an advanced research paper (required for HPS1100Y+): by end of Year 1 for students who enter with a master's degree.
- Students are responsible for ensuring that they have an appropriate supervisor. All supervision arrangements are reviewed and approved by the Director of Graduate Studies who assists in the search for a supervisor, if necessary. Proper supervision is a prerequisite for continuation in the program.
- Maintain a cumulative average of at least A– with no individual grade less than B+. In addition, all students should receive at least an A– on the HPS1100Y+ Advanced Research Paper. Students falling below these standards may be recommended for termination from the program.
- Pass a qualifying examination by May 30 of Year 2 in areas related to the field of expected research. Examination is conducted by the student's specialist committee, normally three faculty members.
- Pass a research requirement by August 31 of Year 3 as determined by the Director of Graduate Studies in consultation with the student's supervisory committee. This may be satisfied through:
  - reading knowledge of a language(s) other than English if needed to carry out the research and writing of the dissertation;
  - familiarity with research methods that are required to successfully complete the writing of the dissertation not typical of IHPST (for example, randomized control trials, cohort studies, mathematical modelling); or
- additional coursework as determined by the Director of Graduate Studies.
- Submit a thesis proposal approved by the student's thesis supervisory committee and the Director of Graduate Studies.

Program Length

4 years

Time Limit

6 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPST's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university, with an average grade of at least a B+ in the applicant's overall program and of at least an A– in the applicant's final two years of study.
- Applications must be accompanied by a 300- to 500-word statement of interest indicating the applicant's areas of interest in history and/or philosophy of science and technology at the graduate level. A writing sample is required.
- Applicants whose primary language is not English and who are not graduates of a university whose language of instruction is English must submit results of the Test of English as a Foreign Language (TOEFL) and Test of Written English (TWE) with the following minimum scores:
  - Paper-based TOEFL: 580 and 5 on the TWE or
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

- Students admitted on the basis of a bachelor's degree (direct-entry) must:
  - Complete 6.0 full-course equivalents (FCEs) in total; of these, students must complete all of the MA program requirements including language proficiency, normally in Year 1.
  - Complete all required courses by the end of Year 2. The exception is HPS1100Y+, which should be completed at the end of Year 3.
  - Make course choices consistent with a commitment to either:
    - One of the three history fields (History of Mathematics and Physical Sciences; History of Medicine and Life Sciences; History of Technology); or
    - The philosophy field (Philosophy of Science).
• Arrange the balance of their curriculum in consultation with the Director of Graduate Studies and faculty instructors.
• Submit a proposal for an advanced research paper (required for HPS1100Y*), by end of Year 2.
• Students are responsible for ensuring that they have an appropriate supervisor. All supervision arrangements are reviewed and approved by the Director of Graduate Studies who assists in the search for a supervisor, if necessary. Proper supervision is a prerequisite for continuation in the program.
• Maintain a cumulative average of at least A– with no individual grade less than B+. In addition, all students should receive at least an A– on the HPS1100Y* Advanced Research Paper. Students falling below these standards may be recommended for termination from the program.
• Pass a qualifying examination by May 30 of Year 3 in areas related to the field of expected research. Examination is conducted by the student's specialist committee, normally three faculty members.
• Pass a research requirement by August 31 of Year 4 as determined by the Director of Graduate Studies in consultation with the student's supervisory committee. This may be satisfied through:
  o reading knowledge of a language(s) other than English if needed to carry out the research and writing of the dissertation;
  o familiarity with research methods that are required to successfully complete the writing of the dissertation not typical of IHPST (for example, randomized control trials, cohort studies, mathematical modelling); or
  o additional coursework as determined by the Director of Graduate Studies.
• Submit a thesis proposal approved by the student's thesis supervisory committee and the Director of Graduate Studies.

Program Length

5 years

Time Limit

7 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

PhD Program (Flexible-Time)

Minimum Admission Requirements

• Applicants to the flexible-time PhD option are accepted under the same admission requirements as applicants to the full-time PhD option.
• Students will be admitted on the basis of a master's degree in History and Philosophy of Science and Technology; admission based on a bachelor's degree is not available.
• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy IHPST's additional admission requirements stated below.
• A University of Toronto master's degree in History and Philosophy of Science and Technology or its equivalent from a recognized university with an average grade of at least an A– in the applicant's program and with no individual grade less than B+. While the majority of accepted students exceed this standard, the very broad scope of the field and the variety of fruitful approaches to it also imply that many different backgrounds are appropriate. Accordingly, grades are only one criterion used to judge applicants.
• Applications must be accompanied by a 300- to 500-word statement of interest indicating the applicant's areas of interest in history and/or philosophy of science and technology at the graduate level. A writing sample is required.
• Applicants whose primary language is not English and who are not graduates of a university whose language of instruction is English must submit results of the Test of English as a Foreign Language (TOEFL) and Test of Written English (TWE) with the following minimum scores:
  o Paper-based TOEFL: 580 and 5 on the TWE or
  o Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

• Program requirements for the flexible-time option are identical to those for the full-time PhD program, except that the program of study will relate to the student's work and vice versa.
• Students in the flexible-time option are required to register full-time for the first four years of the program. Thereafter, they may register part-time.
• Transfers between the full-time PhD program and the flexible-time PhD option are not permitted.
• Students in the flexible-time option must satisfy the SGS General Regulations and Degree Regulations in the SGS Calendar, including good academic standing, supervision, and candidacy regulations.
• The student will develop a thesis proposal, which must be approved by the student's thesis supervisory committee and the Director of Graduate Studies.
• Students admitted on the basis of a master's degree must:
  o Complete 3.0 full-course equivalents (FCEs); a student whose MA degree does not exhibit sufficient breadth is required to take additional courses.
  o Make course choices consistent with a commitment to either:
    ▪ One of the three history fields (History of Mathematics and Physical Sciences; History of Medicine and Life Sciences; History of Technology); or
    ▪ The philosophy field (Philosophy of Science).
• Arrange the balance of their curriculum in consultation with the Director of Graduate Studies and faculty instructors.
• Submit a proposal for an advanced research paper (required for HPS1100Y*), by the end of Year 1.
• Students are responsible for ensuring that they have an appropriate supervisor. All supervision arrangements are reviewed and approved by the Director of Graduate Studies who assists in the search for a supervisor, if necessary. Proper supervision is a prerequisite for continuation in the program.
• Maintain a cumulative average of at least A– with no individual grade less than B+. In addition, all students should receive at least an A– on the HPS1100Y* Advanced Research Paper. Students falling below these standards may be recommended for termination from the program.
• Pass a qualifying examination by May 30 of Year 2 in areas related to the field of expected research. Examination
is conducted by the student's specialist committee, normally three faculty members.

- **Pass a research requirement** by August 31 of Year 3 as determined by the Director of Graduate Studies in consultation with the student’s supervisory committee. This may be satisfied through:
  - reading knowledge of a language(s) other than English if needed to carry out the research and writing of the dissertation;
  - familiarity with research methods that are required to successfully complete the writing of the dissertation not typical of IHPST (for example, randomized control trials, cohort studies, mathematical modelling); or
  - additional coursework as determined by the Director of Graduate Studies.

- Submit a thesis proposal approved by the student’s thesis supervisory committee and the Director of Graduate Studies.

**Program Length**

6 years

**Time Limit**

8 years

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*

**HPST: History and Philosophy of Science and Technology MA, PhD Courses**

Not all courses are offered every year. Consult IHPST regarding course offerings.

**History and Philosophy of Science and Technology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPS1000H</td>
<td>Introduction to the History and Philosophy of Science (proseminar: required for MA students, optional for PhD students)</td>
</tr>
<tr>
<td>HPS1001H</td>
<td>Individual Reading and Research in History and Philosophy of Science and Technology</td>
</tr>
<tr>
<td>HPS1002H</td>
<td>Individual Reading and Research in History and Philosophy of Science and Technology</td>
</tr>
<tr>
<td>HPS1003H</td>
<td>Individual Reading and Research in History and Philosophy of Science and Technology</td>
</tr>
<tr>
<td>HPS1100Y+</td>
<td>Advanced Research Paper (required for all students)</td>
</tr>
<tr>
<td>HPS1500H</td>
<td>Research Paper</td>
</tr>
<tr>
<td>HPS2000H</td>
<td>History of Mathematics</td>
</tr>
<tr>
<td>HPS2001H</td>
<td>History of Physics</td>
</tr>
<tr>
<td>HPS2003H</td>
<td>History of Biology</td>
</tr>
<tr>
<td>HPS2004H</td>
<td>History of Medicine</td>
</tr>
<tr>
<td>HPS2006H</td>
<td>History of Technology</td>
</tr>
<tr>
<td>HPS2008H</td>
<td>History of Psychology</td>
</tr>
<tr>
<td>HPS2009H</td>
<td>History and Philosophy of the Social Sciences</td>
</tr>
<tr>
<td>HPS2010H</td>
<td>The Sciences of Human Nature</td>
</tr>
<tr>
<td>HPS2011H</td>
<td>History of Engineering</td>
</tr>
<tr>
<td>HPS3000H</td>
<td>Philosophy of Science</td>
</tr>
<tr>
<td>HPS3001H</td>
<td>The Philosophy of Biology</td>
</tr>
<tr>
<td>HPS3002H</td>
<td>The History and Philosophy of Science</td>
</tr>
<tr>
<td>HPS3003H</td>
<td>Social Studies of Medicine</td>
</tr>
<tr>
<td>HPS3004H</td>
<td>Philosophy of Medicine</td>
</tr>
<tr>
<td>HPS3006H</td>
<td>Philosophy of Probability</td>
</tr>
<tr>
<td>HPS3007H</td>
<td>Philosophy of Economics</td>
</tr>
<tr>
<td>HPS3008H</td>
<td>Philosophy of Science and Religion</td>
</tr>
<tr>
<td>HPS3009H</td>
<td>Slavery, Medicine, and Science in Historical Perspective</td>
</tr>
<tr>
<td>HPS3010H</td>
<td>Social Epistemology</td>
</tr>
<tr>
<td>HPS4001H</td>
<td>The Scientific Revolution: Galileo to Newton</td>
</tr>
<tr>
<td>HPS4007H</td>
<td>Body, Medicine, and Society in Early Modern Europe</td>
</tr>
<tr>
<td>HPS4011H</td>
<td>Cognitive Technologies: Philosophical Issues and Debates</td>
</tr>
<tr>
<td>HPS4012H</td>
<td>Situated Cognition</td>
</tr>
<tr>
<td>HPS4017H</td>
<td>The Rise of Eugenics: A Comparative History</td>
</tr>
<tr>
<td>HPS4020H</td>
<td>Postcolonialism and the Global Turn in Science and Technology Studies</td>
</tr>
<tr>
<td>HPS4021H</td>
<td>Feminist Approaches to Science and Technology Studies</td>
</tr>
<tr>
<td>HPS4023H</td>
<td>Brave New Worlds: Science + Fiction</td>
</tr>
<tr>
<td>HPS4030H</td>
<td>Multiple Realizability: History, Science, and Philosophy</td>
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<tr>
<td>HPS4040H</td>
<td>Computing and Information from Babbage to AI</td>
</tr>
<tr>
<td>HPS4103H</td>
<td>The Technological Underground: New Methods in History of Technology</td>
</tr>
<tr>
<td>HPS4106H</td>
<td>Environment and STS</td>
</tr>
<tr>
<td>HPS4110H</td>
<td>Medicine, Science, and Mobility in the Mediterranean World</td>
</tr>
<tr>
<td>HPS4300H</td>
<td>The Historian’s Craft: Sources, Methods, and Approaches</td>
</tr>
<tr>
<td>HPS4512H</td>
<td>Thought Experiments</td>
</tr>
<tr>
<td>HPS4600H</td>
<td>Topics in the Philosophy of Science</td>
</tr>
</tbody>
</table>
Topics in Philosophy of Science

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Outside Courses of Possible Interest

Check with individual departments for course availability during the academic year.

Book History and Print Culture

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BKS1001H</td>
<td>Introduction to Book History</td>
</tr>
<tr>
<td>BKS1002H</td>
<td>Book History in Practice</td>
</tr>
<tr>
<td>BKS2000H</td>
<td>Advanced Seminar in Book History and Print Culture</td>
</tr>
</tbody>
</table>
Immunology

Immunology: Introduction

Faculty Affiliation

Medicine

Degree Programs

Immunology

MSc
- Fields:
  - Applied Immunology;
  - Fundamental Immunology

PhD
- Field:
  - Fundamental Immunology

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Developmental Biology**
  - Immunology, MSc, PhD

- **Neuroscience**
  - Immunology, PhD

- **Resuscitation Sciences** (admissions have been administratively suspended)
  - Immunology, MSc, PhD

- **Sexual Diversity Studies**
  - Immunology, PhD

- **Women's Health**
  - Immunology, MSc, PhD

Overview

The Department of Immunology provides a common forum for investigators in many areas of the University of Toronto and an interdisciplinary research experience in immunology. Members and students in the department are located at the Medical Sciences Building; the Ontario Cancer Institute; and the research institutes of Mount Sinai Hospital, Toronto General Hospital, Toronto Western Hospital, the Hospital for Sick Children, and Sunnybrook Hospital.

Contact and Address

Web: [www.immunology.utoronto.ca](http://www.immunology.utoronto.ca)
Email: graduate.immunology@utoronto.ca
Telephone: (416) 978-6382
Department of Immunology
University of Toronto

Immunology: Graduate Faculty

Full Members

Anderson, Michele - BS, PhD
Berger, Stuart - BSc, MSc, PhD
Berinstein, Neil - MD
Brooks, David - BS, PhD
Butler, Marcus - BA, MD
Coburn, Bryan - BSc, DrMed
Croitoru, Ken - MDCM
Crome, Sarah - PhD
Cybulsky, Myron - MD
Danska, Jayne - AB, PhD
de Perrot, Marc - MSc, MD
Dunn, Shannon - BSc, MSc, PhD
Ehrhardt, Goetz - MS, PhD
Epelman, Slava - MD, DrMed
Fish, Eleanor - BSc, MPH, PhD
Gehring, Adam - BA, PhD
Girardin, Stephen - BSc, PhD
Gommel, Jennifer - BSc, PhD *(Chair and Graduate Chair from October 1, 2023)*
Grunebaum, Eyal - MD
Guidos, Cynthia - BSc, PhD
Hirano, Naoto - MD, PhD
Inman, Robert - BA, MD
Iscoye, Norman - MD, PhD
Jeschke, Marc - DrMed, PhD
Julien, Jean-Philippe - PhD
Juvet, Stephen - DrMed, PhD
Kaul, Rupert - MD, PhD
MacParland, Sonya - BS, MS, PhD
Mak, Tak - BSc, MSc, PhD
Mallevaey, Thierry - MSc, PhD *(Associate Chair, Graduate Studies)*
Martin, Alberto - BSc, MSc, PhD
Martinu, Tereza - MD
McGaha, Tracy Lynn - BSc, MS, PhD
Miron, Veronique - PhD
Ohashi, Pam - BSc, PhD
Ostrowski, Mario - MD
Paige, Christopher - BSc, PhD
Philippot, Dana - BS, PhD
Piguet, Vincent - BM, DrMed, PhD
Ratcliffe, Michael - PhD
Robbins, Clinton Shane - BS, PhD
Roifman, Chaim - MD
Rottapel, Robert - BA, MD
Serghides, Lena - BSc, PhD
Siminovitch, Katherine - MD
Spaner, David - PhD
Treanor, Bebhinn Lucy - BSc, PhD
Tsui, Florence - BSc, MSc, PhD
Wall, Donna - MD
Watts, Tania - BSc, PhD
Wither, Joan - MD, PhD
Woo, Minna - MD
Yeung, Rae - DrMed, MD
Zhang, Li - MSc, MD, PhD
Zúñiga-Pflücker, J.C. - BSc, PhD
Members Emeriti
Julius, Michael - BSc, PhD
Letarte, Michelle - BSc, PhD
Levy, Gary - BSc, MD
Poussier, Philippe - MD
Shulman, Marc - AB, PhD
Wu, Gillian - BSc, MSc, PhD

Associate Members
Amith, Ray - BSc, MSS, PhD
Buechler, Matthew - PhD
Harding, Shane - PhD
Lee, Nana Hyung-Ran - PhD
Sacher, Adrian - DrMed
Saibil, Samuel - MD, PhD
Singh, Jastaran - BSc, PhD

Immunology: Immunology MSc Field: Applied Immunology
Master of Science
Program Description
The MSc program is offered in two fields:

- The non-thesis Applied Immunology field provides advanced training in designing, implementing, and evaluating immunological techniques that measure immune responses.
- The thesis-based Fundamental Immunology field provides advanced training in an area of specialization, with a particular emphasis on the acquisition of experience in the strategies and experimental methods of modern, original, scientific research.

Students in the Applied Immunology field (including the advanced-standing option) are not eligible to participate in collaborative specializations.

Field: Applied Immunology
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Immunology’s additional admission requirements stated below.
- An appropriate BSc, or its equivalent, normally with at least a B+ average and a strong background in molecular and cellular biology. Applicants lacking adequate training in immunology or biological or natural sciences may be advised to do extra coursework necessary for their research.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Applicants educated outside Canada are required to provide Graduate Record Examination (GRE) (general) scores with their application.
- Before starting the program, applicants may be required to complete SCS 3128 (at the discretion of the Department of Immunology).
- Please note that the Applied Immunology field is unable to accept international students at this time.

Program Requirements

- Students must complete any courses conditional of acceptance.
- Coursework. Students must successfully complete a total of 7.0 full-course equivalents (FCEs) as follows:
  - Year 1:
    - 2.0 FCEs: IMM1450Y, IMM1550Y
    - 1.0 FCE selected from IMM1428H, IMM1429H, IMM1430H, IMM1431H
    - 0.5 FCE: IMM1436H
  - Year 2:
    - 1.0 FCE: IMM1050H0, IMM1075H0
    - 1.0 FCE: IMM1650Y
    - 0.5 FCE: IMM1651H
    - 1.0 FCE selected from the elective course list below.
- Students are required to participate full-time until the program requirements of research and coursework have been completed.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMM1050H0</td>
<td>Easton Seminar Series (I) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM1075H0</td>
<td>Special Topics in Immunology (I) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM1428H</td>
<td>Molecular Immunology</td>
</tr>
<tr>
<td>IMM1429H</td>
<td>Developmental Immunology</td>
</tr>
<tr>
<td>IMM1430H</td>
<td>Clinical Immunology</td>
</tr>
<tr>
<td>IMM1431H</td>
<td>Immunotherapy</td>
</tr>
<tr>
<td>IMM1436H</td>
<td>Techniques in Immunology</td>
</tr>
<tr>
<td>IMM1450Y</td>
<td>Major Research Project in Immunology (I)</td>
</tr>
<tr>
<td>IMM1550Y</td>
<td>Major Research Project in Immunology (II)</td>
</tr>
<tr>
<td>IMM1650Y</td>
<td>Major Research Project in Immunology (III)</td>
</tr>
<tr>
<td>IMM1651H</td>
<td>Applied Research in Immunology (Credit/No Credit)</td>
</tr>
</tbody>
</table>

0 Course that may continue over a program. Credit is given when the course is completed.

Elective Courses

Students may take any graduate-level course available to fulfill the elective portion of their degree requirements from Immunology, Pharmacology and Toxicology.
Students may take a course offered outside the above listed departments towards the elective portion of their degree requirements, but will require the approval of the Associate Chair, Graduate Studies.

Program Length

6 sessions full-time (typical registration sequence: (F/W/S/F/W/S)

Time Limit

3 years full-time

Field: Applied Immunology (Advanced-Standing Option)

Minimum Admission Requirements

- Applicants with an Immunology specialist or major undergraduate degree from the University of Toronto, may be eligible for advanced standing.
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Immunology's additional admission requirements stated below.
- An appropriate BSc from the University of Toronto (including those with an Immunology specialist or major undergraduate degree), normally with at least a B+ average and a strong background in molecular and cellular biology. Applicants lacking adequate training in immunology or biological or natural sciences may be advised to do extra coursework necessary for their research.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Applicants educated outside Canada are required to provide Graduate Record Examination (GRE) (general) scores with their application.
- Applicants must have completed the following University of Toronto undergraduate course or its equivalent: IMM450H1.
- Applicants must have completed the following University of Toronto undergraduate courses: two of IMM428H1, IMM429H1, IMM430H1, IMM431H1, MJ485H1.
- Applicants must already have a graduate research supervisor who is a graduate faculty member in the Department of Immunology.
- Please note that the Applied Immunology field (advanced-standing option) is unable to accept international students at this time.

Program Requirements

- **Coursework.** Successful completion of 5.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE: IMM1550Y, completed in the first Summer session
  - 1.0 FCE: IMM1650Y
  - 2.0 FCEs: IMM1050H, IMM1075H, IMM1436H, IMM1651H

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMM1050H</td>
<td>Easton Seminar Series (I) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM1075H</td>
<td>Special Topics in Immunology (I) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM1436H</td>
<td>Techniques in Immunology</td>
</tr>
<tr>
<td>IMM1550Y</td>
<td>Major Research Project in Immunology (II)</td>
</tr>
<tr>
<td>IMM1650Y</td>
<td>Major Research Project in Immunology (III)</td>
</tr>
<tr>
<td>IMM1651H</td>
<td>Applied Research in Immunology (Credit/No Credit)</td>
</tr>
</tbody>
</table>

○ Course that may continue over a program. Credit is given when course is completed.

Elective Courses

Students may take any graduate-level course available to fulfil the elective portion of their degree requirements from Immunology, Pharmacology and Toxicology.

Students may take a course offered outside the above listed departments towards the elective portion of their degree requirements, but will require the approval of the Associate Chair, Graduate Studies.

Program Length

4 sessions full-time (typical registration sequence: S/F/W/S)

Time Limit

3 years full-time

Immunology: Immunology MSc Field: Fundamental Immunology

Master of Science

Program Description

The MSc program is offered in two fields:

- The non-thesis Applied Immunology field provides advanced training in designing, implementing, and evaluating immunological techniques that measure immune responses.
- The thesis-based Fundamental Immunology field provides advanced training in an area of specialization, with a particular emphasis on the acquisition of experience in the strategies and experimental methods of modern, original, scientific research.
Field: Fundamental Immunology

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Immunology's additional admission requirements stated below.
- An appropriate BSc, or its equivalent, normally with at least a B+ average and a strong background in molecular and cellular biology. Applicants lacking adequate training in biological or natural sciences may be advised to do extra coursework necessary for their research.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Applicants educated outside Canada are required to provide Graduate Record Examination (GRE) (general) scores with their application.

Program Requirements

- Coursework. Successful completion of 3.0 full-course equivalents (FCEs):
  - IMM1000Y Recent Advances in Immunology (1.0 FCE)
  - IMM1200H+ Scientific Skills for Immunologists (0.5 FCE)
  - IMM1025H0 Student Seminar Series (I) (Credit/No Credit; 0.5 FCE)
  - IMM1050H0 Easton Seminar Series (I) (Credit/No Credit; 0.5 FCE)
  - IMM1075H0 Special Topics in Immunology (I) (Credit/No Credit; 0.5 FCE).
- A satisfactory thesis embodying the student's research.
- Upon of completion of the thesis, pass an oral examination.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMM1000Y</td>
<td>Recent Advances in Immunology</td>
</tr>
<tr>
<td>IMM1025H0</td>
<td>Student Seminar Series (I) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM1050H0</td>
<td>Easton Seminar Series (I) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM1075H0</td>
<td>Special Topics in Immunology (I) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM1200H+</td>
<td>Scientific Skills for Immunologists</td>
</tr>
</tbody>
</table>

* Course that may continue over a program. Credit is given when course is completed.

Elective Courses

Students may take any graduate-level course available to fulfill the elective portion of their degree requirements from Immunology*, Pharmacology and Toxicology.

Students may take a course offered outside the above listed departments towards the elective portion of their degree requirements, but will require the approval of the Associate Chair, Graduate Studies.

*Note: students in the MSc field in Fundamental Immunology cannot use IMM1428H, IMM1429H, IMM1430H, IMM1431H, IMM1436H, IMM1450Y, IMM1550H, IMM1650Y, or IMM1651H towards their degree requirements.

Immunology: Immunology PhD

Program Description

The PhD degree is an advanced research degree intended to reflect a level of training consistent with the ability of the candidate to function as an independent research scientist.

Applications may enter the PhD program via one of three routes: 1) following completion of an MSc degree; 2) transfer from the MSc in Immunology program, Fundamental Immunology field; or 3) direct entry following completion of a BSc degree.

Field: Fundamental Immunology

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Immunology's additional admission requirements stated below.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Applicants educated outside Canada are required to provide Graduate Record Examination (GRE) (general) scores with their application.
- Applicants who have completed an MSc degree must have at least a B+ average in that degree.
- Applicants may be accepted for direct entry with a BSc degree, with at least an A– average in the final two years.

Program Requirements

- Coursework. Students must successfully complete a total of 4.5 full-course equivalents (FCEs) as follows:
o IMM1000Y Recent Advances in Immunology (1.0 FCE)
o IMM1200H* Scientific Skills for Immunologists (0.5 FCE); in the event the student has taken this course to complete the MSc in Immunology, Fundamental Immunology field, a substitute course will be taken with approval of the Graduate Coordinator
o IMM2000H PhD Proposal in Immunology (0.5 FCE)
o IMM2025H0 Student Seminar Series (II) (Credit/No Credit; 0.5 FCE)
o IMM2050H0 Easton Seminar Series (II) (Credit/No Credit; 0.5 FCE)
o IMM2075H0 Special Topics in Immunology (II) (Credit/No Credit; 0.5 FCE)
o 1.0 elective FCE at the graduate level from either Immunology or outside the department as relevant to their thesis topic (examples are provided in the elective course list).

• Students must complete a qualifying exam (DEX5555Y, Credit/No Credit; 0.0 FCE) within 24 months of starting the PhD program, Fundamental Immunology field.
• Candidates must submit a thesis and defend it at a Doctoral Final Oral Examination conducted by the School of Graduate Studies.
• Students are required to participate full-time until the program requirements of research and coursework have been completed.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>IMM1000Y</td>
<td>Recent Advances in Immunology</td>
</tr>
<tr>
<td>IMM1200H*</td>
<td>Scientific Skills for Immunologists</td>
</tr>
<tr>
<td>IMM2000H</td>
<td>PhD Proposal in Immunology</td>
</tr>
<tr>
<td>IMM2025H0</td>
<td>Student Seminar Series (II) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM2050H0</td>
<td>Easton Seminar Series (II) (Credit/No Credit)</td>
</tr>
<tr>
<td>IMM2075H0</td>
<td>Special Topics in Immunology (II) (Credit/No Credit)</td>
</tr>
<tr>
<td>DEX5555Y</td>
<td>Departmental Examination (Credit/No Credit; prerequisite: IMM1000Y)</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
0 Course that may continue over a program. The course is graded or credit is given when completed.

Elective Courses

Students may take any graduate-level course available to fulfil the elective portion of their degree requirements from Immunology*, Pharmacology and Toxicology.

Students may take a course offered outside the above listed departments towards the elective portion of their degree requirements, but will require the approval of the Associate Chair, Graduate Studies.

*Note: students in the PhD field in Fundamental Immunology cannot use IMM1428H, IMM1429H, IMM1430H, IMM1431H, IMM1436H, IMM1450Y, IMM1550H, IMM1650Y, or IMM1651H towards their degree requirements.

Program Length

4 years

Time Limit

6 years

PhD Program (Transfer)

Transfer Requirements

• Transfer applicants must be enrolled in the MSc Immunology program, Fundamental Immunology field.
• Applicants must pass a reclassification (transfer) exam (DEX5555Y, Credit/No Credit; 0.0 FCE) within 24 months of initial registration in the MSc Immunology program, Fundamental Immunology field.
• Successful completion of IMM1200H* and IMM1000Y with at least a B+ overall average, prior to taking the reclassification exam (DEX5555Y).
• Completion of, or concurrent registration in, IMM1025H0, IMM1050H0, and IMM1075H0.

Program Requirements

• Coursework. Students must successfully complete a total of 6.0 full-course equivalents (FCEs) as follows:
  o IMM1000Y Recent Advances in Immunology (1.0 FCE)
  o IMM1200H* Scientific Skills for Immunologists (0.5 FCE)
  o IMM1025H0 Student Seminar Series (I) (Credit/No Credit; 0.5 FCE)
  o IMM1050H0 Easton Seminar Series (I) (Credit/No Credit; 0.5 FCE)
  o IMM1075H0 Special Topics in Immunology (I) (Credit/No Credit; 0.5 FCE)
  o IMM2000H PhD Proposal in Immunology (0.5 FCE)
  o IMM2025H0 Student Seminar Series (II) (Credit/No Credit; 0.5 FCE)
  o IMM2050H0 Easton Seminar Series (II) (Credit/No Credit; 0.5 FCE)
  o IMM2075H0 Special Topics in Immunology (II) (Credit/No Credit; 0.5 FCE)
  o 1.0 elective FCE at the graduate level from either Immunology or outside the department as relevant to their thesis topic (examples are provided in the elective course list).
• Students must successfully complete the reclassification transfer exam (DEX5555Y, Credit/No Credit; 0.0 FCE) within 24 months of starting the MSc Immunology program, Fundamental Immunology field.
• Candidates must submit a thesis and defend it at a Doctoral Final Oral Examination conducted by the School of Graduate Studies.
• Students are required to participate full-time until the program requirements of research and coursework have been completed.
Required Courses

<table>
<thead>
<tr>
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<td>Special Topics in Immunology (II) (Credit/No Credit)</td>
</tr>
<tr>
<td>DEX5555Y</td>
<td>Departmental Examination (Credit/No Credit; prerequisite: IMM1000Y)</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

0 Course that may continue over a program. The course is graded or credit is given when completed.

Elective Courses

Students may take any graduate-level course available to fulfil the elective portion of their degree requirements from Immunology*, Pharmacology and Toxicology.

Students may take a course offered outside the above listed departments towards the elective portion of their degree requirements, but will require the approval of the Associate Chair, Graduate Studies.

*Note: students in the PhD field in Fundamental Immunology cannot use IMM1428H, IMM1429H, IMM1430H, IMM1431H, IMM1436H, IMM1450Y, IMM1550H, IMM1650Y, IMM1651H towards their degree requirements.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Direct entry is available for highly qualified BSc graduates who completed the undergraduate Immunology specialist program or an appropriate undergraduate program in the life sciences from a recognized university, with a minimum A– average in the final two years and relevant research experience.

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Immunology’s additional admission requirements stated below.

- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Applicants educated outside Canada are required to provide Graduate Record Examination (GRE) (general) scores with their application.

- Applicants are selected by the departmental admissions committee on the basis of academic and research excellence. Admission to the program is finalized when a graduate faculty member agrees to supervise the student's research and guarantees a full stipend for the student.

Program Requirements

- **Coursework.** Students must successfully complete a total of 6.0 full-course equivalents (FCEs) as follows:
  - IMM1000Y Recent Advances in Immunology (1.0 FCE)
  - IMM1200H* Scientific Skills for Immunologists (0.5 FCE)
  - IMM1025H0 Student Seminar Series (I) (Credit/No Credit; 0.5 FCE)
  - IMM1050H0 Easton Seminar Series (I) (Credit/No Credit; 0.5 FCE)
  - IMM1075H0 Special Topics in Immunology I (Credit/No Credit; 0.5 FCE)
  - IMM2025H0 Student Seminar Series (II) (Credit/No Credit; 0.5 FCE)
  - IMM2050H0 Easton Seminar Series (II) (Credit/No Credit; 0.5 FCE)
  - IMM2075H0 Special Topics in Immunology (II) (Credit/No Credit; 0.5 FCE)
  - 1.0 elective FCE at the graduate level from either Immunology or outside the department as relevant to their thesis topic (examples are provided in the elective course list).

- Students must complete a **qualifying exam** (DEX5555Y, Credit/No Credit; 0.0 FCE) within 24 months of starting the PhD program, Fundamental Immunology field.

- Candidates must submit a **thesis** and defend it at a **Doctoral Final Oral Examination** conducted by the School of Graduate Studies.

- Students are required to participate full-time until the program requirements of research and coursework have been completed.

Required Courses

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<td>DEX5555Y</td>
<td>Departmental Examination</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

0 Course that may continue over a program. The course is graded or credit is given when completed.

**Elective Courses**

Students may take any graduate-level course available to fulfill the elective portion of their degree requirements from Immunology*, Pharmacology and Toxicology.

Students may take a course offered outside the above listed departments towards the elective portion of their degree requirements, but will require the approval of the Associate Chair, Graduate Studies.

*Note: students in the PhD field in Fundamental Immunology cannot use IMM1428H, IMM1429H, IMM1430H, IMM1431H, IMM1436H, IMM1450Y, IMM1550H, IMM1650Y, or IMM1651H towards their degree requirements.

**Program Length**

5 years

**Time Limit**

7 years
Industrial Relations and Human Resources

IRHR: Introduction

Faculty Affiliation
Arts and Science

Degree Programs

Industrial Relations and Human Resources

MIRHR

PhD

• Field:
  o Canadian Industrial Relations and Human Resources

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

• Ethnic, Immigration and Pluralism Studies
  o Industrial Relations and Human Resources, MIRHR, PhD

• Workplace Learning and Social Change
  o Industrial Relations and Human Resources, MIRHR, PhD

Overview

In addition to faculty directly appointed to the Centre for Industrial Relations and Human Resources (CIRHR), the centre brings together professors from many different disciplines and departments at the University of Toronto to teach and conduct research on all aspects of the workplace and employment relationships. The CIRHR faculty reflect the depth, breadth, and diversity of our university.

Contact and Address

Web: www.cirhr.utoronto.ca
Email: cir.info@utoronto.ca
Telephone: (416) 978-0551
Fax: (416) 978-5696

Centre for Industrial Relations and Human Resources
University of Toronto
121 St. George Street
Toronto, Ontario M5S 2E8
Canada

IRHR: Graduate Faculty

Full Members

Campolieti, Michele - BSc, MA, PhD
Connelly, Brian Samuel - BA, PhD
Dhuey, Elizabeth Ann - BA, MEC, PhD

Distelhorst, Gregory Michael - BA, PhD (PhD Coordinator)
Gomez, Rafael - BA, MA, MIR, PhD
Hyatt, Douglass - BA, MA, PhD
Krashinsky, Harry - MA, PhD
Krashinsky, Michael - SB, MPH, AM, PhD
Langille, Brian A. - LLB, BCL, BA
Latham, Gary - BA, MS, PhD
Macklem, Patrick - BA, LLB, LLM
Pohler, Dionne - BComm, PhD
Reitz, Jeffrey G. - PhD
Rotundo, Maria - BA, MA, PhD
Saks, Alan - BA, MSc, PhD
Zweig, David - BA, MASc, DPhil

Members Emeriti

Gunderson, Morley - BA, MA, PhD
Reid, Frank - BA, MSc, PhD (MIRHR Coordinator)
Verma, Anil - BTech, MBA, PhD

Associate Members

Eads, Alicia - DPhil
Myers, Jenna Elizabeth - PhD
Rittich, Kerry - Bamus, LLB, SJD
Sawchuk, Peter - BSc, BEd, MA, PhD

IRHR: Industrial Relations and Human Resources MIRHR

Master of Industrial Relations and Human Resources

Program Description

The Master of Industrial Relations and Human Resources (MIRHR) degree program benefits students who are interested in advanced academic study leading to career opportunities in human resources management, labour-management relations, collective bargaining and dispute resolution, organization development and change, and labour market and social policy.

The MIRHR is a professional degree program designed to train students in the latest innovations and best practices within industrial relations and human resources management. The program uses an interdisciplinary approach to provide specialized study of the employment relationship.

The MIRHR offers two program options:

• The two-year MIRHR option allows qualified students to complete the degree program in two years (16 non-consecutive months) of full-time study.

• The advanced-standing MIRHR option enables qualified students to complete the MIRHR in one year (12 consecutive months) of full-time study.

Both options may be taken on a part-time basis.
MIRHR Program (Two-Year)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the CIRHR additional admission requirements stated below.
- Applicants to the two-year MIRHR program require an appropriate bachelor's degree from a recognized university. A minimum grade average of B+ in each of the final two years of the degree is required.
- Applicants may submit results from the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT). Although these tests are not required and there is no minimum score requirement, this information is helpful to the admissions committee. Test results more than five years old are normally not considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must write the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The following minimum scores are acceptable:
  - paper-based TOEFL exam: 600 and 5 on the Test of Written English (TWE)
  - Internet-based TOEFL exam: 100/120 and 22/30 on the writing and speaking sections
  - IELTS exam: overall score of 7.0 (Academic), with at least 6.5 for each component.
- Since space in the program is limited, all applicants who meet the minimum admission requirements cannot be guaranteed admission. The CIRHR admissions committee reserves the right to select qualified applicants to the program. All admission decisions are final.

Program Requirements

- Each student's program of courses must be approved by the Coordinator of Graduate Studies. If chosen courses appear to overlap to a large degree, approval may be denied.
- Students must have a mid-B average overall to be recommended for the degree.
- Failure in any course (that is, a grade of less than B–) will require a review of the student's program by the department.
- A student who fails two or more courses is no longer in good standing. The department reserves the right to select qualified applicants to the program. All admission decisions are final.

Year 1: Foundation Courses

- Year 1 is spent acquiring a foundation in industrial relations and human resources and includes courses in economics, human resources management, law, quantitative methods, and organizational behaviour.
- Students must take 4.0 full-course equivalents (FCEs), of which 3.5 are required courses, as follows:
  - IRE1002H Applied Statistics in Industrial Relations
  - IRE1010H Economic Foundations of Industrial Relations and Human Resources
  - IRE1126H Economics of Labour and Human Resources
  - IRE1362H Organizational Behaviour
  - IRE1609H Strategic Human Resources Management
  - IRE1610H Industrial Relations
  - plus one of the following law courses:
    - IRE1270H Law of Labour Relations
    - IRE1338H Law in the Workplace.
- 0.5 FCE is an elective course that is chosen from the list below to fill the requisite 4.0 FCEs in Year 1 of the program.
- Students in the MIRHR program are required to achieve a mid-B average in Year 1 of the program (or in the first 4.0 FCEs) in order to continue or to pass into Year 2.

Year 2: Core Courses

- Students must take 4.0 FCEs to complete Year 2. This includes core courses in Industrial Relations and Human Resources (1.5 FCEs):
  - IRE2001H Foundations and Current Issues in Industrial Relations and Human Resources
  - IRE2002H Research Methods for Industrial Relations and Human Resources
  - plus one of the following courses:
    - IRE2003H Research Project in Industrial Relations and Human Resources
    - IRE2004H Data Analytics and Metrics in Industrial Relations and Human Resources.
- 2.5 FCEs are elective courses that are chosen from the list below to fill the requisite 4.0 FCEs in Year 2 of the program.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time; 6 years part-time

MIRHR Program (Advanced-Standing Option: 12-Month)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for Industrial Relations and Human Resources additional admission requirements stated below.
- Applicants to the 12-month MIRHR advanced-standing option require an appropriate bachelor's degree from a recognized university and significant academic training (normally 2.0 full-course equivalents [FCEs] at the senior undergraduate level), employment relations, human resources, industrial relations, labour studies, or labour economics. If the admissions committee determines that an applicant does not have sufficient academic training to qualify for advanced standing, the student will be considered for the two-year MIRHR degree. A minimum grade average of B+ in each of the final two years of the degree is required.
- Applicants may submit results from the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT). Although these tests are not required and there is no minimum score requirement, this information is helpful to the admissions committee. Test results more than five years old are normally not considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must write the Test of
English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The following minimum scores are acceptable:

- paper-based TOEFL exam: 600 and 5 on the Test of Written English (TWE)
- Internet-based TOEFL exam: 100/120 and 22/30 on the writing and speaking sections
- IELTS exam: overall score of 7.0 (Academic), with at least 6.5 for each component.

- Since space in the program is limited, all applicants who meet the minimum admission requirements cannot be guaranteed admission. The CIRHR admissions committee reserves the right to select qualified applicants to the program. All admission decisions are final.

Program Requirements

- Each student's program of courses must be approved by the Coordinator of Graduate Studies. If chosen courses appear to overlap to a large degree, approval may be denied.
- Students must have a mid-B average overall to be recommended for the degree.
- Failure in any course (that is, a grade of less than B–) will require a review of the student's program by the department.
- A student who fails two or more courses is no longer in good academic standing and a recommendation for termination will be made to the School of Graduate Studies.
- Students admitted into the 12-month MIRHR advanced-standing option will have completed many of the foundation courses in industrial relations and human resources.
- Students will take both foundation and core courses simultaneously in the three sessions of study (September to August). During this time, students will also take elective courses to increase their breadth of knowledge or to focus on their areas of interest.
- Students must take 5.5 full-course equivalents (FCEs), of which 3.0 are required courses, as follows:
  - IRE1010H Economic Foundations of Industrial Relations and Human Resources
  - IRE1126H Economics of Labour and Human Resources
  - IRE2001H Foundations and Current Issues in Industrial Relations and Human Resources
  - IRE2002H Research Methods for Industrial Relations and Human Resources
  - plus one of the following courses:
    - IRE2003H Research Project in Industrial Relations and Human Resources
    - IRE2004H Data Analytics and Metrics in Industrial Relations and Human Resources
  - plus one of the following law courses:
    - IRE1270H Law of Labour Relations
    - IRE1338H Law in the Workplace.
- 2.5 FCEs are elective courses that are chosen from the list below to fill the requisite 5.5 FCEs in the program.
- Students in the MIRHR advanced-standing option are required to achieve a mid-B average in the first 2.5 FCEs of the program in order to continue.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)
Program Requirements

Normally, requirements in Years 1 and 2 consist of a core course in Industrial Relations and Human Resources, elective courses, and courses in research methods and statistics.

- Students must take the equivalent of 4.5 full-course equivalents (FCEs) as follows:
  - The core requirement in Industrial Relations and Human Resources is met by completing:
    - IRE3004H Special Topics in Employment and Industrial Relations.
  - The research and statistics requirements are met by completing:
    - IRE3002Y Research Seminar I
    - IRE3003H Research Seminar II
    - RSM3062H Methods and Research in Organizational Behaviour
    - 1.0 FCE in statistics, chosen, with the approval of the PhD Coordinator, from selected offerings in other departments and Faculties.
  - In cases where a student’s prior academic background may have covered any of the courses listed above, substitutions may be permitted with the approval of the PhD Coordinator.
  - 1.0 FCE is chosen from the elective courses set out below or from selected offerings in other departments and Faculties.

- A comprehensive examination is normally written by January 31 of Year 2. It is designed to encourage students to broaden their understanding of industrial relations and human resources, to demonstrate analytical and methodological abilities, and to address current policy issues. The examination is four to five hours in length and graded as Pass/Fail. It is normally set by four faculty members and students must answer one of two questions submitted by each of them.

- A student who fails the first attempt at the exam will be permitted one more attempt. Failure of the second attempt will result in a recommendation for program termination.

- Intensive work on the dissertation will also begin in Year 2 of the PhD program. The thesis topic and name of supervisor must be submitted no later than March 31 of Year 2.

- Students who are in Years 3 and 4 must enrol in the following courses:
  - IRE3005H Workshop in Industrial Relations I (Credit/No Credit)
  - IRE3006H Workshop in Industrial Relations II (Credit/No Credit).

- Students will have achieved candidacy upon successful completion of the program requirements above at the end of Year 3 of study.

- Proficiency in French and/or other languages will be required when the student’s supervisor deems it necessary for dissertation research or when CIRHR deems it necessary for the student’s area of research.

Thesis and a Doctoral Final Oral Examination on the thesis.

The program is available only on a full-time basis and normally has a two-year residency requirement, during which time the student is required to participate fully in the department’s activities associated with the program.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for Industrial Relations and Human Resources' additional admission requirements stated below.

- Students who hold a bachelor’s degree in industrial relations or human resources may be considered for admission to the PhD if they have exceptional academic standing and have demonstrated quantitative skills and research ability. Students will be required to complete additional courses.

- Academic performance in courses relevant to the applicant’s area of interest, as well as performance in statistics and research methods courses are taken into consideration by the admissions committee.

- Applicants are required to submit a copy of their results from the Graduate Record Examination (GRE). Although there is no minimum score requirement, performance on the GRE will be taken into consideration by the admissions committee. Test results more than five years old are normally not considered.

- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must write the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The following minimum scores are acceptable:
  - paper-based TOEFL exam: 600 and 5 on the Test of Written English (TWE)
  - Internet-based TOEFL exam: 100/120 and 22/30 on both the writing and speaking sections
  - IELTS exam: overall score of 7.0 (Academic), with at least 6.5 for each component.

- Applicants may be required to appear for a personal interview and/or submit copies of recent academic work.

Program Requirements

- Normally, requirements in Years 1 and 2 consist of a core course in Industrial Relations and Human Resources, elective courses, and courses in research methods and statistics.

- Students must take up to the equivalent of 8.5 full-course equivalents (FCEs) as follows:

- Students must take the equivalent of 4.5 full-course equivalents (FCEs) as follows:
  - The core requirement in Industrial Relations and Human Resources is met by completing:
    - IRE3004H Special Topics in Employment and Industrial Relations.
  - The research and statistics requirements are met by completing:
    - IRE3002Y Research Seminar I
    - IRE3003H Research Seminar II
    - RSM3062H Methods and Research in Organizational Behaviour
    - 1.0 FCE in statistics, chosen, with the approval of the PhD Coordinator, from selected offerings in other departments and Faculties.
  - In cases where a student’s prior academic background may have covered any of the courses listed above, substitutions may be permitted with the approval of the PhD Coordinator.
  - 1.0 FCE is chosen from the elective courses set out below or from selected offerings in other departments and Faculties.

- A comprehensive examination is normally written by January 31 of Year 2. It is designed to encourage students to broaden their understanding of industrial relations and human resources, to demonstrate analytical and methodological abilities, and to address current policy issues. The examination is four to five hours in length and graded as Pass/Fail. It is normally set by four faculty members and students must answer one of two questions submitted by each of them.

- A student who fails the first attempt at the exam will be permitted one more attempt. Failure of the second attempt will result in a recommendation for program termination.

- Intensive work on the dissertation will also begin in Year 2 of the PhD program. The thesis topic and name of supervisor must be submitted no later than March 31 of Year 2.

- Students who are in Years 3 and 4 must enrol in the following courses:
  - IRE3005H Workshop in Industrial Relations I (Credit/No Credit)
  - IRE3006H Workshop in Industrial Relations II (Credit/No Credit).

- Students will have achieved candidacy upon successful completion of the program requirements above at the end of Year 3 of study.

- Proficiency in French and/or other languages will be required when the student’s supervisor deems it necessary for dissertation research or when CIRHR deems it necessary for the student’s area of research.
The core requirement in Industrial Relations and Human Resources is met by completing:

- IRE3004H Special Topics in Employment and Industrial Relations.
- The research and statistics requirements are met by completing:
  - IRE3002Y Research Seminar I
  - IRE3003H Research Seminar II
  - RSM3062H Methods and Research in Organizational Behaviour
- 1.0 FCE in statistics, chosen, with the approval of the PhD Coordinator, from selected offerings in other departments and Faculties.
- In cases where a student's prior academic background may have covered any of the courses listed above, substitutions may be permitted with the approval of the PhD Coordinator.

- 4.0 FCEs chosen in consultation with the PhD Coordinator.
- 1.0 FCE is chosen from the elective courses set out below or from selected offerings in other departments and Faculties.

A comprehensive examination is normally written by January 31 of Year 2 in the program. It is designed to encourage students to broaden their understanding of industrial relations and human resources, to demonstrate analytical and methodological abilities, and to address current policy issues. The examination is four to five hours in length and graded as Pass/Fail. It is normally set by four faculty members and students must answer one of two questions submitted by each of them.

- A student who fails the first attempt at the exam will be permitted one more attempt. Failure of the second attempt will result in a recommendation for program termination.
- Intensive work on the dissertation will also begin in Year 2 of the PhD program. The thesis topic and name of supervisor must be submitted no later than March 31 of Year 2.
- Students who are in Years 3 and 4 must enrol in the following courses:
  - IRE3005H Workshop in Industrial Relations I (Credit/No Credit)
  - IRE3006H Workshop in Industrial Relations II (Credit/No Credit).

- Students will have achieved candidacy upon successful completion of the program requirements above at the end of Year 4.
- Proficiency in French and/or other languages will be required when the student's supervisor deems it necessary for dissertation research or when CIRHR deems it necessary for the student's area of research.
- Thesis and a Doctoral Final Oral Examination on the thesis.
- The program is available only on a full-time basis and normally has a two-year residency requirement, during which time the student is required to participate fully in the department's activities associated with the program.

### Program Length

5 years

### Time Limit

7 years

**IRHR: Industrial Relations and Human Resources MIRHR, PhD Courses**

#### Required Courses

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<tr>
<th>Course Code</th>
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<tr>
<td>IRE1002H</td>
<td>Applied Statistics in Industrial Relations</td>
</tr>
<tr>
<td>IRE1010H</td>
<td>Economic Foundations of Industrial Relations and Human Resources</td>
</tr>
<tr>
<td>IRE1126H</td>
<td>Economics of Labour and Human Resources (prerequisite: IRE1010H or equivalent)</td>
</tr>
<tr>
<td>IRE1270H</td>
<td>Law of Labour Relations</td>
</tr>
<tr>
<td>IRE1338H</td>
<td>Law in the Workplace</td>
</tr>
<tr>
<td>IRE1362H</td>
<td>Organizational Behaviour</td>
</tr>
<tr>
<td>IRE1609H</td>
<td>Strategic Human Resources Management (exclusion: RSM2609H Aligning People and Strategy)</td>
</tr>
<tr>
<td>IRE1610H</td>
<td>Industrial Relations</td>
</tr>
<tr>
<td>IRE1700H</td>
<td>HR Consulting Models, Practices, and Applications (prerequisite: IRE1609H or equivalent)</td>
</tr>
<tr>
<td>IRE2001H</td>
<td>Foundations and Current Issues in Industrial Relations and Human Resources</td>
</tr>
<tr>
<td>IRE2002H</td>
<td>Research Methods for Industrial Relations and Human Resources (prerequisite: IRE1002H)</td>
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<tr>
<td>IRE2003H</td>
<td>Research Project in Industrial Relations and Human Resources (prerequisite: IRE2002H)</td>
</tr>
<tr>
<td>IRE2004H</td>
<td>Data Analytics and Metrics for Industrial Relations and Human Resources (prerequisite: IRE2002H)</td>
</tr>
<tr>
<td>IRE3002Y</td>
<td>Research Seminar I</td>
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<tr>
<td>IRE3003H</td>
<td>Research Seminar II (prerequisite: IRE3002Y)</td>
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<td>IRE3004H</td>
<td>Special Topics in Employment and Industrial Relations</td>
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<td>Workshop in Industrial Relations I (Credit/No Credit)</td>
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<td>IRE3006H</td>
<td>Workshop in Industrial Relations II (Credit/No Credit)</td>
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<td>RSM3062H</td>
<td>Methods and Research in Organizational Behaviour</td>
</tr>
</tbody>
</table>
Elective Courses

The Centre for Industrial Relations and Human Resources (CIRHR) offers key elective courses in both industrial relations and human resources. With the permission of the Graduate Coordinator, students may take courses in other departments and Faculties. Since graduate units give preference to their own students, CIRHR students can enrol in these elective courses only when space is available. Students must meet the standards and requirements of the other departments and Faculties in those courses taken outside CIRHR.

Not all courses are offered every year. The availability of elective courses may be subject to change due to such factors as faculty research leaves and departmental resources. Some courses may be available only in the day or in the evening.

Please consult the CIRHR timetable which lists available courses in each session. The notation (PR) following a course indicates the course has a prerequisite, and additional information may be obtained from CIRHR.

Further details concerning specific courses and brief course descriptions are available on the CIRHR website.

Industrial Relations and Human Resources

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRE1260H</td>
<td>Seminar on Labour Arbitration (prerequisite: IRE1270H, IRE1338H, or equivalent)</td>
</tr>
<tr>
<td>IRE1270H</td>
<td>Law of Labour Relations</td>
</tr>
<tr>
<td>IRE1338H</td>
<td>Law in the Workplace</td>
</tr>
<tr>
<td>IRE1600H</td>
<td>International Developments in Labour and Human Resource Policy</td>
</tr>
<tr>
<td>IRE1611H</td>
<td>Sociology of Work and Organizations</td>
</tr>
<tr>
<td>IRE1615H</td>
<td>Labour and Globalization (prerequisite: IRE1610H or equivalent)</td>
</tr>
<tr>
<td>IRE1620H</td>
<td>Labour Relations Problems in Historical Perspective</td>
</tr>
<tr>
<td>IRE1625H</td>
<td>Contemporary Issues in Public Sector Labour-Management Relations (prerequisite: IRE1610H or equivalent)</td>
</tr>
<tr>
<td>IRE1630H</td>
<td>Negotiation Skills, Theory, and Practice (prerequisite: IRE1610H or equivalent)</td>
</tr>
<tr>
<td>IRE1635H</td>
<td>Collective Bargaining (prerequisite: IRE1610H or equivalent)</td>
</tr>
<tr>
<td>IRE1640H</td>
<td>Contemporary Trade Unionism: Issues, Challenges, Strategy (prerequisite: IRE1610H or equivalent)</td>
</tr>
<tr>
<td>IRE1650H</td>
<td>Managing Workplace Conflict (prerequisite: IRE1610H or equivalent)</td>
</tr>
<tr>
<td>IRE1655H</td>
<td>Health and Safety</td>
</tr>
</tbody>
</table>

IRE1715H Special Topics in Industrial Relations and Human Resources
IRE1720H Managing Organizational Change (prerequisite: IRE1362H or equivalent)
IRE1725H Cross Cultural Differences in Organizational Contexts (prerequisite: IRE1362H or equivalent)
IRE2021H Business Strategy for IR/HR
IRE3007H Qualitative Research Methods in Work and Organizations
IRE3008H Econometrics for Industrial Relations I
IRE3615H Performance Management Systems (prerequisite: IRE1609H or equivalent)
IRE3635H Compensation (prerequisite: IRE1609H or equivalent)
IRE3640H Recruitment and Selection (prerequisite: IRE1609H or equivalent)
IRE3645H Training and Development (prerequisite: IRE1609H or equivalent)
IRE3650H Human Resource Planning and Strategy (prerequisite: IRE1609H or equivalent)
IRE3655H Leadership (prerequisite: IRE1362H or equivalent)

Reading Courses

In certain circumstances, and with the approval of the Graduate Coordinator, students may be allowed to take a reading or research course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRE1090H</td>
<td>A reading course or individual research in an approved field</td>
</tr>
<tr>
<td>IRE2090H</td>
<td>A reading course or individual research in an approved field</td>
</tr>
</tbody>
</table>

IRE3615H Special Topics in Industrial Relations and Human Resources
IRE1720H Managing Organizational Change (prerequisite: IRE1362H or equivalent)
IRE1725H Cross Cultural Differences in Organizational Contexts (prerequisite: IRE1362H or equivalent)
IRE2021H Business Strategy for IR/HR
IRE3007H Qualitative Research Methods in Work and Organizations
IRE3008H Econometrics for Industrial Relations I
IRE3615H Performance Management Systems (prerequisite: IRE1609H or equivalent)
IRE3635H Compensation (prerequisite: IRE1609H or equivalent)
IRE3640H Recruitment and Selection (prerequisite: IRE1609H or equivalent)
IRE3645H Training and Development (prerequisite: IRE1609H or equivalent)
IRE3650H Human Resource Planning and Strategy (prerequisite: IRE1609H or equivalent)
IRE3655H Leadership (prerequisite: IRE1362H or equivalent)
Information

Information: Introduction

Faculty Affiliation

Information

Degree Programs

Information

MI

• Concentrations:
  o Archives and Records Management (ARM);
  o Critical Information Policy Studies (CIPS) (admissions have been administratively suspended);
  o Culture and Technology (C&T) (admissions have been administratively suspended);
  o Human Centred Data Science (HCDS);
  o Information Systems and Design (ISD);
  o Knowledge Management and Information Management (KMIM) (admissions have been administratively suspended);
  o Library and Information Science (LIS);
  o User Experience Design (UXD)

PhD

• Concentrations:
  o Archives and Records Management;
  o Critical Information Policy Studies;
  o Cultural Heritage;
  o Information Systems and Design;
  o Knowledge Management and Information Management;
  o Library and Information Science;
  o Media, Technology, and Culture;
  o Philosophy of Information

Museum Studies

MMSt

Combined Degree Programs

• STG, Law, JD / MI
• STG, MI / MMSt

Diploma Program

Information Studies

GDiplSt, a post-master's diploma (admissions have closed)

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

• Aging, Palliative and Supportive Care Across the Life Course
  o Information, MI, PhD
• Book History and Print Culture
  o Information, MI, PhD
  o Museum Studies, MMSt
• Environmental Studies
  o Information, MI, PhD
• Food Studies
  o Information, MI
  o Museum Studies, MMSt
• Jewish Studies
  o Information, PhD
  o Museum Studies, MMSt
• Knowledge Media Design
  o Information, MI, PhD
  o Museum Studies, MMSt
• Sexual Diversity Studies
  o Information, MI, PhD
  o Museum Studies, MMSt
• Women and Gender Studies
  o Information, MI, PhD

Overview

The Faculty of Information at the University of Toronto is one of the world’s most important information and knowledge management schools. Information is studied and tough questions are asked for the benefit of society and the students. Located in the heart of Canada’s most diverse and dynamic city, the programs are led by leading researchers and faculty across multiple disciplines and result in exceptional research and career opportunities. The Faculty of Information is the centre for information professions and leaders of research that matters.

People. Information. Technology. They intersect at the Faculty of Information, a launch pad for futures as highly skilled practitioners or researchers. Today’s technologies have transformed the way we connect with, shape, and use information. Similar changes have been taking place in the field of museums and cultural heritage.

Contact and Address

Web: ischool.utoronto.ca
General email: inquire.ischool@utoronto.ca
Admissions email: admissions.ischool@utoronto.ca
Telephone: (416) 978-3234
Fax: (416) 978-5762

Faculty of Information
University of Toronto
140 St. George Street
Toronto, Ontario M5S 3G6
Canada

Information: Graduate Faculty

Full Members

Alexander, Rohan Peter - MEc, PhD
Andritsos, Periklis - BSc, MSc, PhD, PhD
Battershill, Claire - PhD
Becker, Christoph - BSc, MSc, DSc
Information: Information MI

Master of Information

Program Description

The MI program allows students to explore the breadth of information and to focus on one or more areas of study. Students may choose one of two pathways to completion:

- **Concentration pathway**: students choose one or two of eight concentrations and may complete:
  - Concentration(s) only,
  - Concentration(s) plus a thesis, or
  - Concentration(s) plus a co-op (CCO)

- **General program pathway**: students do not choose a formal concentration and may complete:
  - Coursework only,
  - Coursework plus a thesis, or
  - Coursework plus a co-op

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Application deadlines are available on the Faculty of Information website. Applicants must also satisfy the Faculty's additional admission requirements stated below. Meeting the minimum requirements does not guarantee admission.

- An appropriate bachelor's degree with at least a B average (3.0 GPA) from a university recognized by the University of Toronto.

- The bachelor's degree must normally contain at least 75% academic credits — that is, courses that are not professional, practical, technical, or vocational. Courses such as studio art, drama or music performance, theology, education, or undergraduate courses in library science are not normally considered to be sufficiently academic in content for admission purposes.

- Applicants who have satisfactory standing in an undergraduate program and who have successfully completed information studies graduate courses in programs equivalent to the University of Toronto MI program may also apply for admission with advanced standing. Each application will be evaluated individually. At least 4.0 full-course equivalents (FCEs) towards the MI degree must be taken at the University of Toronto.

- All incoming graduate students must have a good command of English. All applicants educated outside Canada whose primary language is not English must demonstrate proficiency in the English language. This requirement is a condition of admission and must be met before an offer of admission is made. The English language requirement may be satisfied using one of the following tests:
  - Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - Paper-based TOEFL exam: 600 with 5.5 on the Test of Written English (TWE)
    - Internet-based TOEFL exam: 107/120 with 24/30 on the speaking section and 27/30 on the writing section.
  - International English Language Testing System (IELTS): a minimum required score of 7.5 overall with 7.5 on the writing section and 7.0 on the speaking section.
• Certificate of Proficiency in English (COPE): a minimum required score of 95 overall with 41 on the writing component, 27 on the reading component, and 27 on the listening component.
• English Language Program, U of T School of Continuing Studies with an overall score of A in Academic English Level 60.

Concentration-Plus-Co-operative Option (CCO)

• To be considered for the CCO, Year 1 full-time MI program students must apply during the first (Fall) session of Year 1. For more information, visit the Faculty of Information website. Acceptance is limited and not guaranteed. Inquiries about the CCO may be emailed to careers.ischool@utoronto.ca.

Program Requirements

• The minimum requirement is completion of 8.0 full-course equivalents (FCEs), regardless of pathway or option therein.
• All students must successfully complete all degree requirements as outlined for either the concentration pathway or for the general program pathway.

Concentration Pathway

• The Faculty of Information offers eight concentrations leading to the MI degree:
  o Archives and Records Management (ARM)
  o Critical Information Policy Studies (CIPS); admissions have been administratively suspended
  o Culture and Technology (C&T); admissions have been administratively suspended
  o Human Centred Data Science (HCDS)
  o Information Systems and Design (ISD)
  o Knowledge Management and Information Management (KMIM); admissions have been administratively suspended
  o Library and Information Science (LIS)
  o User Experience Design (UXD)
• Each concentration requires a total of 8.0 FCEs.

Concentration-Only Option

• Two quarter-weight core courses: INF1005H and INF1006H (0.5 FCE total).
• Four or five required half courses depending on the concentration (2.0 or 2.5 FCEs total, depending on the concentration).
• Plus 10 or 11 additional elective half courses (5.0 or 5.5 FCEs total, depending on the concentration).

Concentration-Plus-Thesis Option

The thesis option allows students to gain experience in developing and executing a research project from beginning to end. Students gain familiarity with the research process and hone their research skills. The thesis option is designed for students who have a clearly defined topic, can find a supervisor, and can meet tight deadlines in order to graduate within the usual time frame envisioned for the degree. Faculty approval is required to enter the thesis option; visit the Faculty of Information website for details. For information about completing a thesis in the General Pathway, please see the General Pathway program requirements below.

• Two quarter-weight core courses: INF1005H and INF1006H (0.5 FCE total).
• Five required half courses (2.5 FCEs total, specific to each concentration). The exception is Library and Information Science, which has four required half courses (2.0 FCEs).
• 0.5 FCE research methods course appropriate to the student's program of study, with a final grade of at least A–.
• 0.5 FCE reading course with the student’s intended supervisor, with a final grade of at least A–.
• A thesis (2.0 FCEs total).
• Four additional elective half courses (2.0 FCEs total, specific to each concentration). The exception is Library and Information Science, which requires five additional elective half courses (2.5 FCEs total).

Concentration-Plus-Co-op Option

• Two quarter-weight core courses: INF1005H and INF1006H (0.5 FCE total).
• Five required half courses (2.5 FCEs total, specific to each concentration). The exception is Library and Information Science, which requires four half courses (2.0 FCEs total).
• INF3900H The Emerging Professional (0.5 FCE).
• The two 12-week co-op placement courses: INF3902H and INF3903H (1.0 FCE total).
• Seven additional elective half courses (3.5 FCEs total, specific to each concentration). The exception is Library and Information Science, which requires eight additional elective half courses (4.0 FCEs total).

Concentration: Archives and Records Management (ARM)

• 0.5 core FCE (INF1005H and 1006H).
• 2.5 required FCEs (INF1003H, INF1330H, INF1331H or INF2186H, INF2175H, and INF2184H).
• 5.0 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 3.5 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.0 elective FCEs.

Concentration: Critical Information Policy Studies (CIPS)

Admissions have been administratively suspended.

• 0.5 core FCE (INF1005H and 1006H).
• 2.5 required FCEs (INF1001H, INF2181H, INF2240H, INF2242H, and INF2243H).
• 5.0 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 3.5 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.0 elective FCEs.

Concentration: Culture and Technology (C&T)

Admissions have been administratively suspended.

• 0.5 core FCE (INF1005H and 1006H).
- 2.5 required FCEs (INF1501H, INF1502H, INF2241H, INF2243H, and either INF2320H or INF2331H).

- 5.0 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 3.5 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.0 elective FCEs.

**Concentration: Human Centred Data Science (HCDS)**

- 0.5 core FCE (INF1005H and 1006H).

- 2.5 required FCEs (INF1340H, INF1344H, INF2178H, INF2190H, and INF2210H).

- 5.0 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 3.5 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.0 elective FCEs.

**Concentration: Information Systems and Design (ISD)**

- 0.5 core FCE (INF1005H and 1006H).

- 2.5 required FCEs (INF1339H, INF1341H, INF1342H, INF1343H, and INF2177H).

- 5.0 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 3.5 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.0 elective FCEs.

**Concentration: Knowledge Management and Information Management (KMIM)**

- Admissions have been administratively suspended.

- 0.5 core FCE (INF1005H and 1006H).

- 2.5 required FCEs (INF1003H, INF1230H, INF2175H, INF2176H, and INF2186H).

- 6.0 elective FCEs.

**Concentration: Library and Information Science (LIS)**

- 0.5 core FCE (INF1005H and 1006H).

- 2.0 required FCEs (INF1321H, INF1322H, INF1323H, and INF1324H).

- 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

**Concentration: User Experience Design (UXD)**

- 0.5 core FCE (INF1005H and 1006H).

- 2.5 required FCEs (INF1602H, INF2169H, INF2170H, INF2191H, and INF2192H).

- 5.0 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 3.5 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.0 elective FCEs.

**General Program Pathway (No Concentrations)**

**Coursework Option**

Students choosing the coursework option must have their program of study approved by the Program Director.

- Two quarter-weight core courses: INF1005H and INF1006H (0.5 FCE total).

- Three required half courses: INF1001H, INF1003H, and INF1240H (1.5 FCEs total).

- 6.0 elective FCEs.

**Thesis Option**

Faculty approval is required to enter the thesis option. Visit the Faculty of Information website for details.

- Two quarter-weight core courses: INF1005H and INF1006H (0.5 FCE total).

- Three required half courses: INF1001H, INF1003H, and INF1240H (1.5 FCE total).

- 0.5 required FCE consisting of one research methods half course appropriate to the student's program of study, with a final grade of at least A–. INF1240H can be used to meet this requirement.

- 0.5 required FCE reading course with the student's intended supervisor, with a final grade of at least A–.

- A thesis (2.0 FCEs).

- Six elective half courses (3.0 FCEs) or seven elective half courses (3.5 FCEs) if INF1240H has been completed and counted toward the research methods half-course requirement

  - These courses may include up to 2.0 FCEs taken outside the MI program.

**Program Length**

- 4 sessions (2 years) full-time (typical registration sequence: F/W/F/W);
- CCO: 6 sessions (2 years) full-time (typical registration sequence: F/W/S/F/W/S);
- 11 sessions (5.5 years) part-time

**Time Limit**

- 3 years full-time;
- 6 years part-time
Information: Information MI (Effective 2024-25)

Master of Information

Note: the following admission and program requirements are effective from September 2024.

Program Description

The MI program allows students to explore the breadth of information, and also to focus on one area of study/concentration.

Students will choose one of the following three options:

- Concentration only,
- Concentration plus a thesis, or
- Concentration plus a co-op (CCO)

Students will be admitted to one of eight concentrations*:

- Archives and Records Management (ARM)
- Critical Information Policy Studies (CIPS)
- Culture and Technology (C&T)
- Human Centred Data Science (HCDS)
- Information Systems and Design (ISD)
- Knowledge Management and Information Management (KMIM)
- Library and Information Science (LIS)
- User Experience Design (UXD)

*Note: students who find themselves on a path to be able to complete a second concentration may submit a request to have the second concentration added to their transcript in the final session of their final year.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Application deadlines are available on the Faculty of Information website. Applicants must also satisfy the Faculty's additional admission requirements stated below. Meeting the minimum requirements does not guarantee admission.
- An appropriate bachelor's degree with at least a B average (3.0 GPA) from a university recognized by the University of Toronto.
- The bachelor's degree must normally contain at least 75% academic credits — that is, courses that are not professional, practical, technical, or vocational. Courses such as studio art, drama or music performance, theology, education, or undergraduate courses in library science are not normally considered to be sufficiently academic in content for admission purposes.
- Applicants who have satisfactory standing in an undergraduate program and who have successfully completed information studies graduate courses in programs equivalent to the University of Toronto MI program may also apply for admission with advanced standing. Each application will be evaluated individually. At least 4.0 full-course equivalents (FCEs) towards the MI degree must be taken at the University of Toronto.
- Applicants will be admitted to a single concentration. Applicants will select their preferred concentrations on the application and will be admitted to a concentration by the Master’s Recruitment and Admissions Committee.
- All incoming graduate students must have a good command of English. All applicants educated outside Canada whose primary language is not English must demonstrate proficiency in the English language. This requirement is a condition of admission and must be met before an offer of admission is made. The English language requirement may be satisfied using one of the following tests:
  - Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - Paper-based TOEFL exam: 600 with 5.5 on the Test of Written English (TWE)
    - Internet-based TOEFL exam: 107/120 with 24/30 on the speaking section and 27/30 on the writing section.
  - International English Language Testing System (IELTS): a minimum required score of 7.5 overall with 7.0 on the speaking section and 7.0 on the writing section.
  - Certificate of Proficiency in English (COPE): a minimum required score of 95 overall with 41 on the writing component, 27 on the reading component, and 27 on the listening component.
  - English Language Program, U of T School of Continuing Studies with an overall score of A in Academic English Level 60.

Concentration-Plus-Co-operative Option (CCO)

- To be considered for the CCO, Year 1 full-time MI program students must apply during the first (Fall) session of Year 1. For more information, visit the Faculty of Information website. Acceptance is limited and not guaranteed. Inquiries about the CCO may be emailed to careers.ischool@utoronto.ca.

Program Requirements

- Regardless of concentration and option selected, students must successfully complete a minimum of 8.0 full-course equivalents (FCEs), including:
  - the requirements of a concentration;
  - one course (0.5 FCE) from each of four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives.

Concentration-Only Option

- 8.0 FCEs as follows:
  - Five required half courses (2.5 FCEs total, specific to each concentration). The exception is Library and Information Science, which has four required half courses (2.0 FCEs).
  - Plus 11 or 12 additional elective half courses (5.5 or 6.0 FCEs total, depending on the concentration).

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.
Concentration-Plus-Thesis Option

The thesis option allows students to gain experience in developing and executing a research project from beginning to end. Students gain familiarity with the research process and hone their research skills. The thesis option is designed for students who have a clearly defined topic, can find a supervisor, and can meet tight deadlines in order to graduate within the usual time frame envisioned for the degree. Faculty approval is required to enter the thesis option; visit the Faculty of Information Science website for details.

*8.0 FCEs as follows:

- Five required half courses (2.5 FCEs total, specific to each concentration). The exception is Library and Information Science, which has four required half courses (2.0 FCEs).
- 0.5 FCE research methods course appropriate to the student's program of study, with a final grade of at least A–.
- 0.5 FCE reading course with the student’s intended supervisor, with a final grade of at least A–.
- A thesis (2.0 FCEs total).
- Five additional elective half courses (2.5 FCEs total, specific to each concentration). The exception is Library and Information Science, which requires six additional elective half courses (3.0 FCEs total).

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration-Plus-Co-op Option

*8.0 FCEs as follows:

- Five required half courses (2.5 FCEs total, specific to each concentration). The exception is Library and Information Science, which requires four half courses (2.0 FCEs total).
- INF3900H The Emerging Professional (0.5 FCE).
- The two 12-week co-op placement courses: INF3902H and INF3903H (1.0 FCE total).
- Eight additional elective half courses (4.0 FCEs total, specific to each concentration). The exception is Library and Information Science, which requires nine additional elective half courses (4.5 FCEs total.)

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: Critical Information Policy Studies (CIPS)

*8.0 FCEs as follows:

- 2.5 required FCEs (INF1001H, INF2181H, INF2240H, INF2242H, and INF2243H).
- 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: Culture and Technology (C&T)

*8.0 FCEs as follows:

- 2.5 required FCEs (INF1501H, INF1502H, INF2241H, INF2243H, and either INF2320H or INF2331H).
- 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: Human Centred Data Science (HCDS)

*8.0 FCEs as follows:

- 2.5 required FCEs (INF1340H, INF1344H, INF2178H, INF2190H, and INF2210H).
- 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: Archives and Records Management (ARM)

*8.0 FCEs as follows:

- 2.5 required FCEs (INF1003H, INF1330H, INF1331H or INF2186H, INF2175H, and INF2184H).
- 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: Information Systems and Design (ISD)

*8.0 FCEs as follows:
• 2.5 required FCEs (INF1339H, INF1341H, INF1342H, INF1343H, and INF2177H).

• 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: Knowledge Management and Information Management (KMIM)

*8.0 FCEs as follows:

• 2.5 required FCEs (INF1003H, INF1230H, INF2175H, INF2176H, and INF2186H).

• 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: Library and Information Science (LIS)

*8.0 FCEs as follows:

• 2.0 required FCEs (INF1321H, INF1322H, INF1323H, and INF1324H).

• 6.0 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.5 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 3.0 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Concentration: User Experience Design (UXD)

*8.0 FCEs as follows:

• 2.5 required FCEs (INF1602H, INF2169H, INF2170H, INF2191H, and INF2192H).

• 5.5 elective FCEs or co-op (1.0 FCE), INF3900H (0.5 FCE), and 4.0 elective FCEs or thesis (2.0 FCEs), research methods course (0.5 FCE), and reading course (0.5 FCE) plus 2.5 elective FCEs.

*Note: of the total 8.0 FCEs for this option, one course (0.5 FCE) must come from each of the following four Professional Requirements areas: Technical, Managerial, Professional Values, and Critical Perspectives. This requirement can be fulfilled by required and elective courses for each concentration.

Program Length

4 sessions (2 years) full-time (typical registration sequence: F/W/F/W);
CCO: 6 sessions (2 years) full-time (typical registration sequence: F/W/S/F/W/S);
11 sessions (5.5 years) part-time

Time Limit

3 years full-time;
6 years part-time

Information: Information Studies GDiplSt

Graduate Diploma of Advanced Study in Information Studies

Admissions to this diploma program have closed. The program will close on August 31, 2025.

Program Description

The Diploma of Advanced Study in Information Studies is a post-master’s diploma. It is designed:

• for information professionals who want to pursue further studies, but do not wish to take a PhD degree
• for practitioners who wish to advance their professional standing, develop a specialization, or redirect their career
• to build on a person’s knowledge, experience, previous education, and special interests
• to be tailored to the individual’s needs and interests.

Diploma of Advanced Study in Information Studies credits cannot be transferred to the PhD program, and there is no thesis option.

The diploma may be taken on a full-time or part-time basis.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Information’s additional admission requirements stated below.
• Applicants must have a Master of Information or equivalent degree. Visit the Faculty of Information website for details.
• The graduate diploma program will be tailored to the individual’s needs and interests with courses selected in consultation with the Graduate Coordinator.
All incoming graduate students must have a good command of English. Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must show evidence of having taken one of the following tests. Scores must be from tests taken within the last two years.

- The Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL: 600 and 5.5 on the Test of Written English (TWE)
  - Internet-based TOEFL: 107/120, with 24/30 on the speaking section and 27/30 on the writing section.
- The International English Language Testing System (IELTS): a minimum required score of 7.5 overall with 7.5 on the writing section and 7.0 on the speaking section.
- Certificate of Proficiency in English (COPE): a minimum required score of 95 overall with 41 on the writing component, 27 on the reading component, and 27 on the listening component.
- English Language Program, U of T School of Continuing Studies with an overall score of A in Academic English Level 60.

Program Requirements

- Students must complete 4.0 full-course equivalents (FCEs) as follows:
  - At least 3.0 FCEs (six half courses) must be chosen from courses offered in the MI degree program.
  - Only 0.5 FCE (one half course) may be a reading course.
  - Up to 1.0 FCE (two half courses) may be taken in other departments.

Program Length

2 sessions full-time; 4 sessions part-time

Time Limit

2 years full-time; 3 years part-time

Information: Information MI and Information Studies GDiplSt Courses

Not all courses are offered every year. Consult the Faculty of Information website for the annual course offerings; course descriptions; and details of prerequisites, corequisites, exclusions, and permissions. Inquiries concerning the selection of courses to be offered in any given session should be directed to the Faculty of Information.

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<td>INF2110H</td>
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<td>Course Code</td>
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<td>INF2187H</td>
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<td>INF2202H</td>
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<td>INF2203H</td>
<td>Storytelling with Data (prerequisite: INF1340H)</td>
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<td>INF2205H</td>
<td>Designing Sustainable and Resilient Machine Learning Systems with MLOps</td>
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<td>INF2208H</td>
<td>User-Centered Systems for Communication (prerequisite: INF1602H or INF2169H, or equivalent)</td>
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<td>INF2209H</td>
<td>Human-Centered Topic Models (prerequisites: INF1340H and INF2190H)</td>
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<td>Digital Divides and Information Professionals: Developing a Critical Practice</td>
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<td>Digital Discourse</td>
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<tr>
<td>INF2226H</td>
<td>Queer GLAM</td>
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Information: Information PhD

Doctor of Philosophy

Program Description

The PhD program in Information provides opportunities for advanced scholarly inquiry into theoretical aspects of information and in the empirical investigations of information in various contexts.

PhD students come from different backgrounds and with different areas of interest. Therefore, the curriculum both fosters a common conversation about the field of information and supports the development of individual (even idiosyncratic) research projects. The focus of the program is to enable the student to achieve competence in order to carry out the research and writing of an original thesis in information.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Information's additional admission requirements stated below.
- Average of at least A– in an appropriate master's degree program, or equivalent. Equivalency is normally determined by the number of courses and/or credits taken. Applicants holding an MLS or other master's degree earned in two or three sessions, or by completing 5.0 to 7.5 full-course equivalents (FCEs), will normally be required to take additional courses in the MI program.
- Admission is limited to graduates of high intellectual ability who have an interest in research. Evaluation of applicants is based on academic records, a statement of research
interest, and three academic letters of reference. A personal interview may be requested.

- All incoming graduate students must have a good command of English. All applicants educated outside Canada whose primary language is not English must demonstrate proficiency in the English language. This requirement is a condition of admission and must be met before an offer of admission is made. The English language requirement may be satisfied using one of the following tests. Scores must be from tests taken within the last two years.
  - Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - Paper-based TOEFL exam: 600 with 5.5 on the Test of Written English (TWE)
    - Internet-based TOEFL exam: 107/120 with 24/30 on the speaking section and 27/30 on the writing section.
  - International English Language Testing System (IELTS): a minimum required score of 7.5 overall with 7.0 on the writing section and 7.0 on the speaking section.
  - Certificate of Proficiency in English (COPE): a minimum required score of 95 overall with 41 on the writing component, 27 on the reading component, and 27 on the listening component.
  - English Language Program, U of T School of Continuing Studies with an overall score of A in Academic English Level 60.

- Admission procedures are described in the General Regulations section of this calendar.

- Doctoral students are admitted in September.

- Meeting the minimum requirements of the Faculty of Information and the School of Graduate Studies does not guarantee admission.

Program Requirements

To achieve candidacy, students must fulfill the following:

- Students in the Media, Technology, and Culture concentration must complete 4.0 full-course equivalents (FCEs) as follows:
  - INF3001H Research in Information: Foundations (0.5 FCE).
  - A methods course (0.5 FCE): INF3012H Social Scientific Methods for Media or INF3014H Cultural Interpretive Methods for Media and Technology. Course selection to be determined in consultation with the student’s research advisor.
  - INF3009H Theory and History of Media Technology (0.5 FCE).
  - INF3010H Power, Media, and Technology (0.5 FCE).
  - 2.0 FCEs in elective courses relevant to media, technology, and culture (see elective list below).

- Students in all other concentrations must complete 4.0 FCEs as follows:
  - INF3001H Research in Information: Foundations (0.5 FCE).
  - A methods course (0.5 FCE): INF3003H Research in Information: Frameworks and Design or a specific methods course to be determined in consultation with the student’s research advisor.
  - INF3006Y Major Area Reading Course (1.0 FCE) or two additional electives to be determined in consultation with the research advisor (1.0 FCE).
  - 2.0 FCEs in elective courses.

- Students in all concentrations must:
  - Complete other courses appropriate for the student’s research.
  - Pass a qualifying exam.
  - Present and defend a thesis research proposal.
  - Complete a thesis and pass a Doctoral Final Oral Examination.
  - Be regularly registered in the School of Graduate Studies during each year of the program.

Program Length

4 years

Time Limit

6 years

PhD Program (Flexible-Time Option)

Admissions have been administratively suspended.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Information’s additional admission requirements stated below.
- Average of at least A– in an appropriate master’s degree program, or equivalent. Equivalency is normally determined by the number of courses and/or credits taken. Applicants holding an MLS or other master’s degree earned in two or three sessions, or by completing 5.0 to 7.5 full-course equivalents (FCEs), will normally be required to take additional courses in the MI program.
- Admission is limited to graduates of high intellectual ability who have an interest in research. Evaluation of applicants is based on academic records, a statement of research interest, and three academic letters of reference. A personal interview may be requested.
- All incoming graduate students must have a good command of English. All applicants educated outside Canada whose primary language is not English must demonstrate proficiency in the English language. This requirement is a condition of admission and must be met before an offer of admission is made. The English language requirement may be satisfied using one of the following tests. Scores must be from tests taken within the last two years.
  - Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - Paper-based TOEFL exam: 600 with 5.5 on the Test of Written English (TWE)
    - Internet-based TOEFL exam: 107/120 with 24/30 on the speaking section and 27/30 on the writing section.
  - International English Language Testing System (IELTS): a minimum required score of 7.5 overall with 7.0 on the writing section and 7.0 on the speaking section.
  - Certificate of Proficiency in English (COPE): a minimum required score of 95 overall with 41 on the writing component, 27 on the reading component, and 27 on the listening component.
  - English Language Program, U of T School of Continuing Studies with an overall score of A in Academic English Level 60.

- Admission procedures are described in the General Regulations section of this calendar.
Doctoral students are admitted in September.
Meeting the minimum requirements of the Faculty of Information and the School of Graduate Studies does not guarantee admission.

Program Requirements

To achieve candidacy, students must fulfil the following:

• Complete 4.0 full-course equivalents (FCEs) as follows:
  o INF3001H Research in Information: Foundations (0.5 FCE).
  o A methods course (0.5 FCE): INF3003H Research in Information: Frameworks and Design or a specific methods course to be determined in consultation with the student's research advisor.
  o INF3006Y Major Area Reading Course (1.0 FCE) or two additional electives to be determined in consultation with the research advisor (1.0 FCE).
  o 2.0 FCEs in elective courses.

• Other courses appropriate for the student's research may also be required
• Pass a qualifying exam.
• Present and defend a thesis research proposal.
• Complete a thesis and pass a Doctoral Final Oral Examination.
• Ensure that they have adequate time on campus to attend classes and to fulfil the academic requirements for an advanced research degree. Students must spend at least two full-time sessions on campus.

Program Length

6 years

Time Limit

8 years

Information: Information PhD Courses

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INF3102H Ethics of Artificial Intelligence
INF3103H Methods for Algorithmic FATE (Fairness, Accountability, Transparency, Ethics) Research
INF3104H Data Science Foundations

Information: Museum Studies MMSt

Master of Museum Studies

Program Description

The MMSt program prepares students for future involvement in museums and related cultural agencies. The program examines the theoretical body of knowledge of museology as a necessary context for professional practice. The Faculty of Information also offers a combined degree program whereby students may complete both a Master of Information and Master of Museum Studies.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Application deadlines are available on the Master of Museum Studies web page. Applicants must also satisfy the Faculty's additional admission requirements stated below. Meeting the minimum requirements does not guarantee admission.
• An appropriate bachelor's degree with an overall grade of at least a B+ average (grade point average 3.3) from a recognized university.
• Demonstrated previous experience in museums or related cultural organizations will also be considered. Admission to this program is competitive.
• All incoming graduate students must have a good command of English. All applicants educated outside Canada whose primary language is not English must demonstrate proficiency in the English language. This requirement is a condition of admission and must be met before an offer of admission is made. The English language requirement may be satisfied using one of the following tests:
  o Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    ▪ paper-based TOEFL exam: 600 with 5.5 on the Test of Written English (TWE)
    ▪ Internet-based TOEFL exam: 107/120 with 24/30 on the speaking section and 27/30 on the writing section.
  o International English Language Testing System (IELTS): a minimum required score of 7.5 overall with 7.5 on the writing section and 7.0 on the speaking section.
  o Certificate of Proficiency in English (COPE): a minimum required score of 95 overall with 41 on the writing component, 27 on the reading component, and 27 on the listening component.
  o English Language Program, U of T School of Continuing Studies with an overall score of A in Academic English Level 60.
Program Requirements

Coursework Option

- Students must complete a minimum of 7.5 full-course equivalents (FCEs) including:
  - Five required half courses (2.5 FCEs).
  - MSL4000Y Museum Studies Capstone Projects (1.0 FCE; Credit/No Credit).
  - Eight additional courses (4.0 FCEs), of which 2.0 FCEs must be internal (Museum Studies) elective courses.

Thesis Option

- The thesis option allows students to gain experience in developing and executing a research project from beginning to end. Students gain familiarity with the research process and hone their research skills. Faculty approval is required to enter the thesis option. The thesis option is designed for students who have a clearly defined topic, can find a supervisor, and can meet tight deadlines in order to graduate within the usual time frame envisioned for the degree.
- Students must complete 7.5 full-course equivalents (FCEs) as follows:
  - Five required half courses (2.5 FCEs).
  - A research methods course (0.5 FCE) appropriate to their program of study with a final grade of at least A–.
  - A thesis (2.0 FCEs).
  - Five additional courses (2.5 FCEs), of which up to four graduate half courses (2.0 FCEs) may be taken outside the MMSt program.

Program Length

4 sessions (2 years) full-time (typical registration sequence: F/W/F/W)

Time Limit

3 years full-time

Information: Museum Studies MMSt Courses

Not all courses are offered every year. Please consult the Faculty of Information website for course availability. The minimum requirement for the MMSt degree is 7.5 full-course equivalents (FCEs).

MMSt Required Courses (3.5 FCEs)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL1150H</td>
<td>Collection Management</td>
</tr>
<tr>
<td>MSL1230H</td>
<td>Ethics, Leadership, Management</td>
</tr>
<tr>
<td>MSL2331H</td>
<td>The Museum Exhibition: Histories, Practices, Genres</td>
</tr>
<tr>
<td>MSL2370H</td>
<td>Museums and Cultural Heritage: Context and Critical Issues</td>
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MMSt Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MSL2350H</td>
<td>Museum Planning and Management: Projects and Fundraising or Project Management</td>
</tr>
<tr>
<td>MSL4000Y</td>
<td>Museum Studies Capstone Projects (Credit/No Credit)</td>
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</tbody>
</table>

Internal (Museum Studies) Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MSL1300H</td>
<td>Contemporary Theories of Art and Culture</td>
</tr>
<tr>
<td>MSL1350H</td>
<td>Museums and their Publics</td>
</tr>
<tr>
<td>MSL200H</td>
<td>Curatorial Practice</td>
</tr>
<tr>
<td>MSL2050H</td>
<td>Curating Science</td>
</tr>
<tr>
<td>MSL2100H</td>
<td>Museum Environment</td>
</tr>
<tr>
<td>MSL2115H</td>
<td>Global Cultures and Museums</td>
</tr>
<tr>
<td>MSL2230H</td>
<td>Nature and Culture: Histories of Heritage Interpretation in North America</td>
</tr>
<tr>
<td>MSL2235H</td>
<td>Equity, Diversity, and Inclusion in the GLAM Sector</td>
</tr>
<tr>
<td>MSL2240H</td>
<td>The Photographic Record</td>
</tr>
<tr>
<td>MSL2255H</td>
<td>Social Digital Memory</td>
</tr>
<tr>
<td>MSL2301H to MSL2310H</td>
<td>Special Topics in Museum Studies</td>
</tr>
<tr>
<td>MSL2325H</td>
<td>Museums and New Media Practice</td>
</tr>
<tr>
<td>MSL2326H</td>
<td>Artifact, Audience, Text: Writing in the Museum</td>
</tr>
<tr>
<td>MSL2330H</td>
<td>Interpretation and Meaning Making in Museums</td>
</tr>
<tr>
<td>MSL2332H</td>
<td>Public Programs and Education</td>
</tr>
<tr>
<td>MSL2335H</td>
<td>The Digital Museum: From Strategy to Implementation</td>
</tr>
<tr>
<td>MSL2340H</td>
<td>Issues in Cultural Policy and Contemporary Culture</td>
</tr>
<tr>
<td>MSL2352H</td>
<td>Foundations of Visitor Research</td>
</tr>
<tr>
<td>MSL2360H</td>
<td>Museums and Indigenous Communities: Changing Relationships, Changing Practice</td>
</tr>
<tr>
<td>MSL3000H</td>
<td>Internship (Credit/No Credit; prerequisite: MSL3900H)</td>
</tr>
<tr>
<td>MSL3900H</td>
<td>The Emerging Museum Professional</td>
</tr>
<tr>
<td>MSL5050H</td>
<td>Special Studies</td>
</tr>
</tbody>
</table>
External Elective Courses

Courses relevant to the Museum Studies program and student interests are available on the program web page.
Italian Studies

Italian Studies: Graduate Faculty

Full Members

Bancheri, Salvatore - BA, MA, PhD
Brilli, Elisa - MA, PhD
Lettieri, Michael - BA, MA, PhD
Piccardo, Enrica - MA, PhD
Pierno, Franco - BA, MA, PhD (Associate Chair, Graduate)
Robins, William - BA, MPH, PhD
Rupp, Stephen - BA, MA, MPH, MA, PhD
Somigli, Luca - PhD (Chair and Graduate Chair)
Terpstra, Nicholas - BA, MA, PhD
Zambenedetti, Alberto - MA, PhD

Members Emeriti

Eisenbichler, Konrad - BA, MA, PhD
Guardiani, Francesco - MA, PhD
Pietropaolo, Domenico - BSc, MA, PhD

Associate Members

Ingallinella, Laura - BA, MA, MA, PhD
Liberatori, Abril - BA, MA, PhD
Maneri, Marcello - BA, PhD
Morra, Eloisa - BA, MA, PhD
Pesarini, Angelica - BA, MSc, MA, PhD
Polimeni, Giuseppe - BA, PhD
Urbancic, Anne - BA, BEd, MA, PhD
Zinelli, Fabio - MA, PhD

Italian Studies: Italian Studies MA

Master of Arts

Program Description

The MA program offers advanced education in Italian literature and provides training in research techniques.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Italian Studies’ additional admission requirements stated below.
- Successful completion of 7.0 undergraduate full-course equivalents (FCEs) in Italian, including the following: 3.0 FCEs in Italian literature (students must have at least 0.5 FCE in each of three out of four different periods: medieval, Renaissance, seventeenth to eighteenth centuries, nineteenth to twenty-first centuries) and an appropriate upper-year 1.0 FCE in language.
- Minimum B+ standing in their University of Toronto 300- and 400-series courses (or in equivalent courses).
- Two letters of recommendation, preferably from instructors most familiar with the applicant’s work.

Contact and Address

Web: italianstudies.utoronto.ca
Email: italian.grad@utoronto.ca
Telephone: (416) 978-6472

Department of Italian Studies
University of Toronto
Carr Hall, 2nd floor
100 St. Joseph Street
Toronto, Ontario M5S 1J4
Canada
• A personal statement of intent.

• The department will determine whether applicants need to complete prerequisite work in order to qualify for admission. Applicants will be advised accordingly.

**Program Requirements**

**MA Without Thesis**

- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  - ITA1000H *Methodologies for the Teaching and Study of Italian* (0.5 FCE)
  - 3.5 graduate FCEs including a mandatory extra-departmental course (0.5 FCE) and up to two other extra-departmental courses (1.0 FCE) chosen in consultation with the Graduate Coordinator.
- A student's program of study must be approved by the department.

**MA With Thesis Option**

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  - ITA1000H *Methodologies for the Teaching and Study of Italian* (0.5 FCE)
  - 2.5 graduate FCEs including a mandatory extra-departmental course (0.5 FCE) and up to two other extra-departmental courses (1.0 FCE) chosen in consultation with the Graduate Coordinator.
- **MA thesis,** subject to approval by the MA thesis supervisor.
- A student's program of study must be approved by the department.

**Program Length**

3 sessions full-time (typical registration sequence: F/W/S);
15 sessions part-time

**Time Limit**

3 years full-time;
6 years part-time

**Italian Studies: Italian Studies PhD**

**Doctor of Philosophy**

**Program Description**

The PhD program prepares students for a career in teaching and scholarship. Graduates are expected to have acquired autonomy in conducting research and preparing scholarly publications. They are trained to teach undergraduate courses in all areas of Italian studies and to design and teach graduate courses in their fields of specialization.

The program is designed to provide a broad knowledge of the discipline, specialized knowledge of a single field, and training in all aspects of scholarly research in the discipline.

Applicants may enter the PhD program via one of two routes: (1) following completion of an appropriate MA degree or (2) direct entry after completing a bachelor's degree.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Italian Studies’ additional admission requirements stated below.
- Successful completion of the University of Toronto MA or its equivalent with an overall average of at least A– in courses. Please note that an A– average does not guarantee admission to the program.
- Two letters of recommendation, preferably from instructors most familiar with the applicant’s work.
- A personal statement of intent.
- A statement of research and proposed plan of study.
- A writing sample.
- A curriculum vitae (CV) in English.

• Notes:
  - Applicants with an Italian *laurea magistrale/specialistica* may apply for admission to the PhD program.
  - Applicants with a degree equivalent to a PhD (for example, an Italian *dottorato di ricerca*, a PhD, a *diploma di perfezionamento*, etc.) cannot be accepted to the PhD program.

**Program Requirements**

- **Coursework.** Students normally complete a total of 4.0 full-course equivalents (FCEs) as follows:
  - 3.5 graduate FCEs including a mandatory extra-departmental course (0.5 FCE) and up to two other extra-departmental courses (1.0 FCE) chosen in consultation with the Graduate Coordinator.
  - ITA1000H *Methodologies for the Teaching and Study of Italian* (0.5 FCE);
- **Language requirements.** Students must show evidence of written and oral command of Italian; and, not later than the beginning of Year 3 of PhD registration, must have demonstrated a reading knowledge of Latin and one other language approved by the department.
- **Program progress.** All students must maintain a minimum A– average in order to remain in the program.
- Upon completion of all course requirements, and not later than Year 2 of the PhD program, students will complete the series of written and oral qualifying examinations.
- **Thesis** and a **Doctoral Final Oral Examination** on the thesis. Permission to write the thesis in Italian (subject to final approval by the School of Graduate Studies) may be granted to students who first pass a supervised essay-type English examination to demonstrate proficiency in writing correct and idiomatic English prose.

**Program Length**

4 years
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Italian Studies' additional admission requirements stated below.
- Exceptional students may be admitted directly to the PhD program from the BA with a minimum A– average. Such applicants will apply to the MA program, but indicate in a separate letter to the Graduate Coordinator that they wish to be considered for direct admission to the PhD program.
- Two letters of recommendation, preferably from instructors most familiar with the applicant's work.
- A personal statement of intent.
- A statement of research and proposed plan of study.
- A writing sample.
- A curriculum vitae (CV) in English.

Notes:
- Applicants with an Italian *laurea magistrale/specialistica* may apply for admission to the PhD program.
- Applicants with a degree equivalent to a PhD (for example, an Italian *dottorato di ricerca*, a PhD, a *diploma di perfezionamento*, etc.) cannot be accepted to the PhD program.

Program Requirements

- **Coursework.** Students normally complete a total of 8.0 full-course equivalents (FCEs) as follows:
  - 7.5 graduate FCEs, including a mandatory extra-departmental course (0.5 FCE) and up to two other extra-departmental courses (1.0 FCE) chosen in consultation with the Graduate Coordinator.
  - ITA1000H *Methodologies for the Teaching and Study of Italian* (0.5 FCE);
- **Language requirements.** Students must show evidence of written and oral command of Italian; and, not later than the beginning of Year 3 of PhD registration, must have demonstrated a reading knowledge of Latin and one other language approved by the department.
- **Program progress.** All students must maintain a minimum A– average in order to remain in the program.
  - Upon completion of all course requirements, and not later than Year 2 of the PhD program, students will complete the series of written and oral qualifying examinations.
- **Thesis and a Doctoral Final Oral Examination** on the thesis. Permission to write the thesis in Italian (subject to final approval by the School of Graduate Studies) may be granted to students who first pass a supervised essay-type English examination to demonstrate proficiency in writing correct and idiomatic English prose.

Program Length

5 years

Italian Studies: Italian Studies MA, PhD Courses

Not all courses are offered every year. Please consult the department regarding course availability.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ITA1000H</td>
<td>Methodologies for the Teaching and Study of Italian (Credit/No Credit)</td>
</tr>
<tr>
<td>ITA1025H</td>
<td>Old Italian</td>
</tr>
<tr>
<td>ITA1029H</td>
<td>History of Italian Religious Language</td>
</tr>
<tr>
<td>ITA1030H</td>
<td>Italian Lexicography: History and Methodologies</td>
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<tr>
<td>ITA1031H</td>
<td>History of Italian Language in North America</td>
</tr>
<tr>
<td>ITA1165H</td>
<td>Introduction to Italian Philology</td>
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<td>ITA1177H</td>
<td>The Italian Questione della Lingua</td>
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<tr>
<td>ITA1200H</td>
<td>Dante</td>
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<tr>
<td>ITA1202H</td>
<td>Dante as a Reader of Augustine's City of God: Augustinian Textual Communities at the Beginning of the 14th Century</td>
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<td>ITA1203H</td>
<td>Boccaccio</td>
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<td>ITA1235H</td>
<td>Topics in Italian Studies</td>
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<tr>
<td>ITA1330H</td>
<td>Petrarch and Petrarchism</td>
</tr>
<tr>
<td>ITA1520H</td>
<td>Renaissance Humanism</td>
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<td>ITA1535H</td>
<td>Topics in Italian Literature</td>
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<td>ITA1540H</td>
<td>Renaissance Italian Theatre</td>
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<tr>
<td>ITA1550H</td>
<td>Sixteenth-Century Florence</td>
</tr>
<tr>
<td>ITA1553H</td>
<td>Renaissance Crossroads: Tales of Exchange in Pre-modern Italy</td>
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<tr>
<td>ITA1555H</td>
<td>Literature and Society in Renaissance Italy</td>
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<tr>
<td>ITA1591H</td>
<td>Baroque Poetics and Poetry</td>
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<tr>
<td>ITA1597H</td>
<td>The Commedia dell’Arte</td>
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<tr>
<td>ITA1601H</td>
<td>Vico</td>
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<tr>
<td>ITA1605H</td>
<td>Theories of the Stage and Dramatic Criticism</td>
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<tr>
<td>ITA1610H</td>
<td>Seventeenth and Eighteenth-Century Theatre</td>
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<td>ITA1645H</td>
<td>Post-Tridentine Religious Drama</td>
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<td>ITA1705H</td>
<td>Pirandello</td>
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<td>ITA1710H</td>
<td>Aspects of Modern Italian Poetry</td>
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<td>ITA1735H</td>
<td>Topics in Italian Studies I</td>
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<td>ITA1736H</td>
<td>Topics in Italian Studies II</td>
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<td>ITA1737H</td>
<td>Topics in Italian Studies</td>
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<td>ITA1755H</td>
<td>Italian Modernism</td>
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<td>ITA1760H</td>
<td>Futurism</td>
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<td>ITA1810H</td>
<td>Studies in Italian Literature and Film</td>
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<td>ITA1820H</td>
<td>The Mediterranean Noir: A Transnational Approach</td>
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<tr>
<td>ITA1830H</td>
<td>Editing 900: Leonardo Sciascia, his World, his Archive</td>
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<tr>
<td>ITA1815H</td>
<td>Issues in Italian Film Historiography</td>
</tr>
<tr>
<td>ITA2010Y</td>
<td>Directed Research in Italian Linguistics</td>
</tr>
<tr>
<td>ITA2051H</td>
<td>Lecture Series Research 1</td>
</tr>
</tbody>
</table>
Kinesiology

Kinesiology: Introduction

Faculty Affiliation

Kinesiology and Physical Education

Degree Programs

Kinesiology

MA, MSc, and PhD

Professional Kinesiology

MPK

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Cardiovascular Sciences**
  - Kinesiology, MA, MSc, PhD
- **Health Services and Policy Research**
  - Kinesiology, MA, MSc, PhD
- **Musculoskeletal Sciences**
  - Kinesiology, MA, MSc, PhD
- **Public Health Policy**
  - Kinesiology, MA, MSc, PhD
- **Sexual Diversity Studies**
  - Kinesiology, MA, MSc, PhD
- **Women and Gender Studies**
  - Kinesiology, MA, MSc, PhD
- **Women's Health**
  - Kinesiology, MA, MSc, PhD

Overview

The field of Kinesiology is interdisciplinary. All degree programs are for students interested in research, academic, and professional careers relating to:

- Applied/exercise/environmental physiology
- Biomechanics and ergonomics
- Health-care provision as a kinesiologist
- Metabolic and endocrinological aspects of physical activity
- Motor control and motor learning
- Muscle physiology
- Physical cultural aspects of sport and physical activity
- Physical fitness and athletic strength and conditioning
- Psychological aspects of sport and physical activity
- Psychophysiological aspects of exercise and stress
- Women’s health and physical activity.

Contact and Address

Web: kpe.utoronto.ca
Email: grad.kpe@utoronto.ca
Kinesiology: Kinesiology MA

Master of Arts

Program Description

The purpose of the Master of Arts is to provide advanced-level education and research training in social sciences and humanities within the field of kinesiology. The MA program is intended to broaden students’ understanding of the various aspects of kinesiology from a social sciences and/or humanities disciplinary perspective, as well as to provide them with the necessary scholarly and technical research skills so that they may pursue a high-quality research project. Applicants interested in the MSc in Kinesiology should refer to the MSc program section.

The MA program can be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Kinesiology’s additional admission requirements stated below.
- An appropriate bachelor's degree, or its equivalent, from the University of Toronto or from another recognized university.
- A background in kinesiology or a discipline compatible with the research interests and interdisciplinary nature of the Faculty of Kinesiology and Physical Education is preferred.
- An academic standing equivalent to a University of Toronto B+ (76% to 79%) in the last five full-course equivalents of relevant, senior-level courses.
- Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduate from a university where the language of instruction and examination was not English. The Faculty prefers the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - paper-based test: 600 with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  - Internet-based test: 100/120 overall and 22/30 on the writing and speaking sections.

Program Requirements

- Coursework. Successful completion of 2.5 full-course equivalents (FCEs) as follows. All courses must be approved in advance by the student's supervisor and the Graduate Department of Kinesiology.
  - 1.0 FCE in Kinesiology category A courses
  - 0.5 FCE in Methods or Methodology
  - 1.0 FCE in other courses
- SRM3335H+, a graduate seminar in Kinesiology (0.0 FCE).
- A thesis proposal written under the supervision of a thesis committee and its oral defence before an examination committee.
- A thesis written under the supervision of a thesis committee and its oral defence before an examination committee.

- The student's annual program plan must be approved by the supervisor.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
12 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Kinesiology: Kinesiology MSc

Master of Science

Program Description

The MSc program is intended to broaden students' understanding of the various interdisciplinary aspects of kinesiology as well as to provide them with the necessary scholarly and technical research skills so that they may pursue a high-quality research project.

The MSc program can be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Kinesiology's additional admission requirements stated below.
- An appropriate bachelor's degree, or its equivalent, from the University of Toronto or from another recognized university.
- A background in kinesiology or a discipline compatible with the research interests and interdisciplinary nature of the Faculty of Kinesiology and Physical Education is preferred.
- An academic standing equivalent to a University of Toronto B+ (76% to 79%) in the last five full-course equivalents of relevant, senior-level courses.
- Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduate from a university where the language of instruction and examination was not English. The Faculty prefers the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - paper-based test: 600 with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  - Internet-based test: 100/120 overall and 22/30 on the writing and speaking sections.
Program Requirements

- **Coursework.** Successful completion of **2.0 full-course equivalents (FCEs)** as follows. All courses must be approved in advance by the student's supervisor and the Graduate Department of Kinesiology.
  - 0.5 FCE in Kinesiology Category C course
  - 0.5 FCE Statistics or Methodology course
  - 1.0 FCE from either Kinesiology or another department
- SRM3335H+, a graduate seminar in Kinesiology (0.0 FCE).
- A **thesis** proposal written under the supervision of a thesis committee and its oral defence before an examination committee.
- A **thesis** written under the supervision of a thesis committee and its oral defence before an examination committee.
- The student's annual program plan must be approved by the supervisor.

### Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
12 sessions part-time

### Time Limit

3 years full-time;
6 years part-time

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*

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**Kinesiology: Kinesiology PhD**

**Doctor of Philosophy**

**Program Description**

Doctoral students are encouraged to develop a program of study that will enhance their basic understanding of critical areas of study within kinesiology and have a direct impact on their research program. Students are also expected to further develop their scholarly and technical research skills so that they may pursue a high-quality research project.

Applicants may enter the PhD program via one of two routes: 1) following completion of an MSc degree; or 2) direct entry following completion of a BA, BSc, or BKin degree.

The PhD program can be taken on a full-time or flexible-time basis.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the

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Graduate Department of Kinesiology's additional admission requirements stated below.
- A master's degree from the University of Toronto or a recognized university. Formal graduate training in kinesiology is preferred.
- Successful defence of a master's thesis at a recognized university.
- An academic standing equivalent to a University of Toronto A– (80% to 84%) in the master's degree completed.
- A potential supervisor identified from the Faculty of Kinesiology and Physical Education. A supervisor is not required at the time of application, but applicants are encouraged to begin their search early. See the full list of faculty members. Only applicants who have a supervisor will be admitted to the program.
- Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduated from a university where the language of instruction and examination was not English. The Faculty prefers the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - paper-based test: 600 with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  - Internet-based test: 100/120 overall and 22/30 on the writing and speaking sections.

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**Program Requirements**

- Full-time registration (Fall, Spring, Summer sessions) throughout the entire doctoral program.
- **Coursework.** Students must successfully complete a total of **1.5 full-course equivalents (FCEs)** as follows:
  - 1.0 FCE from either Kinesiology or another department
  - 0.5 FCE Statistics or Methodology course
- SRM4445H+, a graduate seminar in Kinesiology (0.0 FCE).
- All courses must be approved in advance by the student's supervisor.
- The student's annual program plan must be approved by the supervisor.
- Successful completion of a **comprehensive examination**.
- Writing of a **thesis** under the supervision of a thesis committee (supervisor plus at least three additional faculty members) and its **defence** before an examination committee appointed by the Graduate Department of Kinesiology.
- **Oral defence** of the thesis before an examination committee approved by the School of Graduate Studies.

**Program Length**

4 years

**Time Limit**

6 years

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Kinesiology's additional admission requirements stated below.
- An appropriate Bachelor of Kinesiology degree or its equivalent from the University of Toronto or from another recognized university.
- A background in kinesiology or a discipline compatible with the research interests and interdisciplinary nature of the Faculty of Kinesiology and Physical Education is preferred.
- An academic standing equivalent to a University of Toronto A– (80% to 84%) in the last five full-course equivalents of relevant, senior-level courses.
- A potential supervisor identified from the Faculty of Kinesiology and Physical Education. A supervisor is not required at the time of application, but applicants are encouraged to begin their search early. See the full list of faculty members. Only applicants who have a supervisor will be admitted to the program.
- Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduated from a university where the language of instruction and examination was not English. The Faculty prefers the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - paper-based test: 600 with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  - Internet-based test: 100/120 overall and 22/30 on the writing and speaking sections.

Program Requirements

- Full-time registration (Fall, Spring, Summer sessions) throughout the entire doctoral program.
- Coursework. Students must successfully complete a total of 2.5 full-course equivalents (FCEs) as follows. All courses must be approved in advance by the student's supervisor.
  - 2.0 FCEs from either Kinesiology or another department
  - 0.5 FCE Statistics or Methodology course
- SRD4445H+, a graduate seminar in Kinesiology (0.0 FCE).
- All courses must be approved in advance by the student's supervisor.
- The student's annual program plan must be approved by the supervisor.
- Successful completion of a comprehensive examination.
- Writing of a thesis under the supervision of a thesis committee (supervisor plus at least three additional faculty members) and its defence before an examination committee appointed by the Graduate Department of Kinesiology.
- Oral defence of the thesis before an examination committee approved by the School of Graduate Studies.

Program Length

5 years

Time Limit

7 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

PhD Program (Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Kinesiology's additional admission requirements stated below.
- A master's degree from the University of Toronto or a recognized university. Formal graduate training in kinesiology is preferred.
- Successful defence of a master’s thesis at a recognized university.
- An academic standing equivalent to a University of Toronto A– (80% to 84%) in the master's degree completed.
- A potential supervisor identified from the Faculty of Kinesiology and Physical Education. A supervisor is not required at the time of application, but applicants are encouraged to begin their search early. See the full list of faculty members. Only applicants who have a supervisor will be admitted to the program.
- Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduated from a university where the language of instruction and examination was not English. The Faculty prefers the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - paper-based test: 600 with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  - Internet-based test: 100/120 overall and 22/30 on the writing and speaking sections.

Program Requirements

- With the approval of the Director, Graduate Studies, some applicants may be admitted to a flexible-time PhD program. This program will benefit mature students with career and/or familial obligations.
- Degree requirements for the flexible-time program are identical to those listed above for the full-time PhD program; however, students have up to eight years to complete the program.
- Coursework. Students must successfully complete a total of 1.5 full-course equivalents (FCEs) as follows:
  - 1.0 FCE from either Kinesiology or another department
  - 0.5 FCE Statistics or Methodology course
- SRD4445H+, a graduate seminar in Kinesiology (0.0 FCE).
- All courses must be approved in advance by the student's supervisor.
- The student's annual program plan must be approved by the student's supervisor.
- Successful completion of a comprehensive examination.
• Writing of a thesis under the supervision of a thesis committee (supervisor plus at least three additional faculty members) and its defence before an examination committee appointed by the Graduate Department of Kinesiology.

• Oral defence of the thesis before an examination committee approved by the School of Graduate Studies.

• Flexible-time students must register full-time for the first four years of the program. Thereafter, they may register part-time.

• A plan of study and research activities will be negotiated at initial registration, to be reviewed and updated annually.

Program Length
6 years

Time Limit
8 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Kinesiology: Kinesiology MA, MSc, PhD

Courses

Graduate courses in the Department of Kinesiology are divided into A, B, and C course categories. Multidisciplinary courses may be coded in more than one category.

Category A courses include courses on the sociology of sport, sport history, cultural studies of sport, sport policy studies, sport and health ethics, social determinants of health, critical race studies, sport, equity and social justice issues, and in some instances socio-psychological studies of sport.

Category B includes research methodology and methods courses offered in the Graduate Department of Kinesiology.

Category C courses include courses on biophysical, behavioural and clinical aspects of sport, exercise and health, motor behaviour and control, biomechanics, neurorehabilitation, muscle plasticity and sport and exercise psychology.

Not all courses are offered every year. Please visit the departmental website for course timetables.

Category A

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN1150H</td>
<td>Safeguarding Youth in Sport</td>
</tr>
<tr>
<td>KIN5507H</td>
<td>Power, Pleasure/s and the Body: Issues for Physical Cultural Studies</td>
</tr>
<tr>
<td>KIN5518H</td>
<td>Physical Cultural Studies and Social Theory</td>
</tr>
<tr>
<td>KIN5534H</td>
<td>Sport, Politics, and Social Development</td>
</tr>
<tr>
<td>KIN5537H</td>
<td>Health, Media, and Social Change</td>
</tr>
<tr>
<td>KIN5544H</td>
<td>Decolonizing Sport Studies</td>
</tr>
</tbody>
</table>

Category B

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>KIN5510H</td>
<td>Qualitative Inquiry and Physical Cultural Studies</td>
</tr>
<tr>
<td>KIN5515H</td>
<td>Quantitative Research Methods in Kinesiology</td>
</tr>
<tr>
<td>KIN5536H</td>
<td>Qualitative Inquiry in Sport and Physical Activity</td>
</tr>
<tr>
<td>KIN5540H</td>
<td>Narrative Methods in Health Research</td>
</tr>
</tbody>
</table>

Category C

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN1150H</td>
<td>Safeguarding Youth in Sport</td>
</tr>
<tr>
<td>KIN1152H</td>
<td>Psychological Issues in Sport-Related Concussion</td>
</tr>
<tr>
<td>KIN5503H</td>
<td>Adaptations to Habitual Activity</td>
</tr>
<tr>
<td>KIN5505H</td>
<td>Neuromotor Behaviour</td>
</tr>
<tr>
<td>KIN5509H</td>
<td>Applied Muscle Physiology and Biochemistry</td>
</tr>
<tr>
<td>KIN5513H</td>
<td>Current Issues in Exercise Psychology</td>
</tr>
<tr>
<td>KIN5514H</td>
<td>Human Sensory and Motor Neurophysiology</td>
</tr>
<tr>
<td>KIN5525H</td>
<td>Quantitative Motion Analysis</td>
</tr>
<tr>
<td>KIN5531H</td>
<td>Skeletal Muscle Plasticity</td>
</tr>
<tr>
<td>KIN5533H</td>
<td>Current Issues in Sport Psychology</td>
</tr>
<tr>
<td>KIN5534H</td>
<td>Sport, Politics, and Social Development</td>
</tr>
<tr>
<td>KIN5535H</td>
<td>Neurorehabilitation and Exercise</td>
</tr>
<tr>
<td>KIN5538H</td>
<td>Special Topics in Exercise Oncology</td>
</tr>
<tr>
<td>KIN5539H</td>
<td>Advanced Disordered Movement and Neurorehabilitation</td>
</tr>
<tr>
<td>KIN5541H</td>
<td>Advanced Exercise Metabolism</td>
</tr>
<tr>
<td>KIN5542H</td>
<td>Special Topics in Sport-Related Concussion</td>
</tr>
<tr>
<td>KIN5543H</td>
<td>Lifestyle Toxicity and Chronic Disease</td>
</tr>
<tr>
<td>KIN5545H</td>
<td>Developing and Reviewing Research Protocols</td>
</tr>
<tr>
<td>KIN5546H</td>
<td>Oxygen Delivery and Exercise Performance</td>
</tr>
<tr>
<td>KIN5547H</td>
<td>Instrumentation and Signal Processing</td>
</tr>
<tr>
<td>KIN7001H</td>
<td>Directed Reading in Kinesiology</td>
</tr>
<tr>
<td>KIN7002H*</td>
<td>Directed Research Project in Kinesiology</td>
</tr>
</tbody>
</table>
Seminars

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SRM3335H*</td>
<td>Master’s Seminar Series — Compulsory Attendance</td>
</tr>
<tr>
<td>SRD4445H*</td>
<td>Doctoral Seminar Series — Compulsory Attendance</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Kinesiology: Professional Kinesiology MPK

Master of Professional Kinesiology

Program Description

The first master’s-level program of its kind in Ontario, the Master of Professional Kinesiology (MPK) degree program offers students an opportunity to gain advanced knowledge and skills in the professional practice of kinesiology. The MPK provides unparalleled learning environments for hands-on practice working alongside leading practitioners. This program is suitable for those who are just beginning their careers, and those who have experience as registered kinesiologists and are looking for advanced professional development. The MPK program may be completed with a concentration or without a concentration.

Concentrations

- Adapted Physical Activity
- Exercise as Medicine
- Health and Wellness
- High Performance Strength and Conditioning

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies.
- Applicants must also satisfy the Graduate Department of Kinesiology's additional admission requirements stated below.
- Applicants must have a four-year bachelor's degree in kinesiology, physical education, human kinetics, or a complementary degree in health science, life science, and/or movement/rehabilitation science. In order to be eligible for admission with a complementary degree, practical experience in the area of kinesiology is required.
- Applicants may also be considered for admission with a four-year bachelor's degree in an area not described above, with at least 5 years of work experience in the area of kinesiology, and evidence of professional training or certification in the area of kinesiology (for example, strength and conditioning certification, physical literacy certification).
- Regardless of the admission pathway, all applicants must have a minimum mid-B average (73% to 76%) in the final year.

Program Requirements

- **Coursework.** Students must successfully complete a total of 12.0 full-course equivalents (FCEs) as listed below. Consult the department for more details on sequence and timing of courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPK4000Y</td>
<td>Introduction to Professional Kinesiology</td>
</tr>
<tr>
<td>MPK4001Y</td>
<td>Clinical Assessment and Interventions</td>
</tr>
<tr>
<td>MPK4002Y</td>
<td>Biophysical Assessment and Interventions</td>
</tr>
<tr>
<td>MPK4003Y</td>
<td>Behavioral Assessment and Interventions</td>
</tr>
<tr>
<td>MPK4004Y</td>
<td>Physical, Culture, Health, and Social Environments</td>
</tr>
<tr>
<td>MPK4005Y</td>
<td>Strength Based Professional Practice</td>
</tr>
<tr>
<td>MPK4006H*</td>
<td>Interprofessional Practice</td>
</tr>
<tr>
<td>MPK4007Y</td>
<td>Practice Setting Considerations</td>
</tr>
<tr>
<td>MPK4008Y</td>
<td>Evidence Supported Practice</td>
</tr>
<tr>
<td>MPK4009H</td>
<td>Business of Kinesiology and Entrepreneurship</td>
</tr>
<tr>
<td>MPK4010H*</td>
<td>Professional Practice</td>
</tr>
<tr>
<td>MPK4012Y</td>
<td>Capstone Project: Improving Kinesiology Practice</td>
</tr>
<tr>
<td>MPK4015H</td>
<td>Practice and Program Evaluation</td>
</tr>
<tr>
<td>MPK8002H</td>
<td>Placement 1 (300 hours)</td>
</tr>
<tr>
<td>MPK8003H</td>
<td>Placement 2 (300 hours)</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Concentration Requirements

- Students must follow departmental application procedures and can apply to only one MPK concentration.
• Students must successfully complete a total of **3.0 full-course equivalents (FCEs)** in the area of concentration, including:
  o in at least 1.5 FCEs of MPK courses, complete a major course assignment in the area of concentration
  o a minimum of 300 placement hours in the area of concentration (0.5 FCE)
  o a final capstone project in the area of concentration (1.0 FCE).

**Program Length**

4 sessions full-time (typical registration sequence: F/W/S/F)

**Time Limit**

3 years
Laboratory Medicine and Pathobiology
LMP: Introduction

Faculty Affiliation
Medicine

Degree Programs

Laboratory Medicine

MHSc
- Fields:
  o Clinical Embryology;
  o Pathologists’ Assistant

Laboratory Medicine and Pathobiology

MSc and PhD

Translational Research in the Health Sciences

MHSc

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Biomedical Engineering**
  o Laboratory Medicine and Pathobiology, MSc, PhD
- **Cardiovascular Sciences**
  o Laboratory Medicine and Pathobiology, MSc, PhD
- **Developmental Biology**
  o Laboratory Medicine and Pathobiology, MSc, PhD
- **Genome Biology and Bioinformatics**
  o Laboratory Medicine and Pathobiology, PhD
- **Musculoskeletal Sciences**
  o Laboratory Medicine and Pathobiology, MSc, PhD
- **Neuroscience**
  o Laboratory Medicine and Pathobiology, MSc, PhD
- **Resuscitation Sciences** (admissions have been administratively suspended)
  o Laboratory Medicine and Pathobiology, MSc, PhD
- **Toxicology**
  o Laboratory Medicine and Pathobiology, MSc, PhD

Overview

As part of the Faculty of Medicine, the Department of Laboratory Medicine and Pathobiology offers unparalleled access to more than 350 expert faculty including basic scientists, pathobiologists, laboratory physicians, and scientists;

outstanding case material; a stunning array of research opportunities; diverse training sites; engaging student-run organizations.

Research Foci

Antimicrobial Resistance: Surveillance and Mechanisms
Bone and Connective Tissue Diseases including Disorders of Mineral Metabolism
Cancer Pathogenesis and Prevention Cardiovascular Disease
Cell-Matrix Interactions
Development: Cell Cycle, Differentiation, Signalling Diabetes
Endocrine and Neuroendocrine Disorders
Hematopathology and Transfusion Medicine
Immunopathology and Transplantation
Inflammatory Disorders
Lipid Disorders
Lymphatic Pathobiology
Microbial Pathogenesis
Molecular Biomarkers
Neurodegenerative Disorders
Proteomics and Bioinformatics
Protein Structure and Function
Toxicology
Translational Research
Vascular Cell Biology
Viral Diseases

For details, consult the [departmental website](http://www.lmp.utoronto.ca).

Contact and Address

Laboratory Medicine and Pathobiology Program
Web: [www.lmp.utoronto.ca](http://www.lmp.utoronto.ca)
Email: lmp.grad@utoronto.ca
Telephone: (416) 978-2663
Fax: (416) 978-7361

Department of Laboratory Medicine and Pathobiology
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Canada

Translational Research in the Health Sciences Program
Web: [trp.utoronto.ca](http://trp.utoronto.ca)
Email: trp@utoronto.ca
Telephone: (416) 978-4474

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Canada
LMP: Graduate Faculty

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Bapat, Bharati - BSc, MSc, PhD
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Juvet, Stephen - DrMed, PhD
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Kalia, Suneeil - BSc, MD, PhD
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Kapoor, Mohit - BPhm, MSc, PhD
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Kovacs, Gabor - MD, PhD
Laffam, Michelle - BS, MD, PhD
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Licht, Christoph - MD
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Mazzulli, Tony - MD
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Saleeba, Rola - MBCHB, PhD
Schmitt-Ulms, Gerold - BSc, MSc, DrRerNat
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Sherman, Philip - MD
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Stauss, Bradley - MD
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Thomer, Paul - MD, DPhil
Tsao, Ming-Sound - BSc, MD
van der Kwast, Theodoros - MD, PhD
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Wang, Chen - MD, PhD
Wilson, Gregory - MSc, MD
Wong, Amy - BS, MS, PhD
Yang, Burton - BSc, MSc, PhD
Yousef, George - MSc, MD, PhD
Yucel, Yeni - MD
Yuen, Darren - BSc, MD, PhD
Zacksenhaus, Eldad - PhD
Zhang, Li - MSc, MD, PhD

Members Emeriti

Butany, Jagdish - MBBS, MS
Associate Members

Allen, Vanessa G. - BA, MD
Antoniou, Tony - BScPhm, DP, PhD
Ball, Christopher - BA, BSc, BSc, MBBS, MEng
Bayani, Jane - BSc, MHSsc, PhD
Berman, Hal K. - MD, PhD
Bowman, Kerry - BA, BS, MSW, PhD
Cabanero, Michael - BA, MD
Chan, Gabriella - PhD, JD
Chang, Hong - MSc, MD, PhD
Changoor, Adele - BS, MS, PhD
Chau, Janet - BSc
Chen, Haiying - BCS, MS, BM
Conner, James - AB, MD, PhD
Dmetrichuk, Jennifer - BS, MBCHB, PhD
Downes, Michelle - MD
Fattouh, Ramzi - BS, PhD
Ferenbok, Joseph - PhD, PhD
Gandhi, Rajiv - BSc, MSc, PhD
Gauda, Estelle - MD
Ghaffar, Hasan - BSc, MD
Grealish, Martin - B Tech, M Tech
Greenfeld, Elena - MD, PhD
Gubbay, Jonathan B. - BSc, MSc, MBBS
Hamilton, Scot - BS, MS, PhD
Harji, Farhana - BSc, MSc
Hsu, Ying-Han (Roger) - BSc, MSc, MD
Hurtig, Mark - MSc, DVM
Jung, Benjamin - BS, MS, PhD
Keating, Sarah - MSc, MD
King, Ian - AB, PhD
Kingdom, John - DipCH, MB, MD
Konvalinka, Ana - Dr Med
Krutikov, Konstantin - PhD
Kulasingam, Vathany - BSc, PhD
Kuznetsova, Iryna - BSc
Lerner-Ellis, Jordan - BS, PhD
Leventis, Peter - BSc, MSc, PhD
Li, Ren-Ke - MHSsc, MSc, MD, PhD
Lu, Fang-I - MD
Marshall, Christian - BS, PhD
McKee, Trevor D. - BSc, PhD
Melano, Roberto - MSc, PhD
Mirham, Lorna - MBCHB
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Mubareka, Samira - MD
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Noor, Abdul - BS, MPH, PhD
Ong Tone, Stephan - LMCC
Paprica, Alison - DSc
Pasic, Maria - BS, PhD
Pavenski, Katerina - BSc, MD
Philpott, Dana - BS, PhD
Pickup, Michael - BS, MS, MD
Pollanen, Michael - BSc, MD, PhD
Raphael, Simon - MED, MD
Richard-Greenblatt, Melissa - BSc, PhD
Riddell, Robert - LMCC, LRCP, MBBS
Sakhdari, Ali - MSc, MD
Seidman, Michael - BA, MPH, MD, PhD
Selvaratnam, Rajeevan - BS, PhD
Sherman, Christopher - BSc, MD
Siddiqui, Iram - MS, MBBS
Smith, Stephen - BS, MD
Snelgrove, John - BSc, MSc, MD
Somers, Gino - MBBS, BMedSc, PhD
Spears, Melanie - BS, PhD
Stavropoulos, Dimitri James - BSc, MSc, PhD
Stockley, Tracy - BSc, PhD
Sue-Chue-Lam, Ian - BSc
Sung, Hoon-Ki - MS, MD, PhD
Tsai, Manal - MS, MBCHB, PhD
Tein, Ingrid - MD
Tsui, Kim - BASc, MD, PhD
Tsui, William - MSc
Visanji, Naomi - BS, PhD
Yoon, Ju-Yoon - BSc, MSc, MD

LMP: Laboratory Medicine MHSc

Master of Health Science

Program Description

The Master of Health Science (MHSc) in Laboratory Medicine is a two-year professional (coursework and practicum) master's degree designed to educate and train highly skilled health laboratory scientists in one of two fields: Pathologists’ Assistant (PA) or Clinical Embryology (CE). The program imparts general core knowledge and skills and the specific basic and applied principles of anatomic pathology or of assisted reproductive technology (ART) required to work as laboratory scientists. These principles are the foundation upon which PAs or CEs develop fundamental applied and practical knowledge and skills to function as competent, high-quality clinical scientists.

The nature of this graduate program equips trainees to apply their knowledge to complex decision making, to serious ethical issues, and to develop a strong sense of personal accountability and intellectual rigour and independence.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Laboratory Medicine and Pathobiology’s additional admission requirements stated below.
- Admission is based on demonstrated exceptional scholarly achievement, using the following criteria:
  - One-page statement summarizing how this program will contribute to the advancement of the applicant’s professional goals, identifying their field of preference.
  - Curriculum vitae (CV).
  - Two letters of reference, one of which should be familiar with the applicant’s scholarly activities.
- Applicants must have an appropriate four-year BSc degree in the life sciences or equivalent from a recognized university, with an average of at least B+ in the last two years of study. Applicants must have a demonstrated interest in human biological and life sciences, preferably with a major or specialist program in the life sciences. Applicants must have completed at least one university-level course in each of the following disciplines: human physiology, human biology, mathematics, and chemistry. Courses in human anatomy,
biostatistics, and biomedical research are desirable but not mandatory.
- All potential students will be interviewed prior to final acceptance into the program. The initial selection of students will be based on a combination of their academic record, individual statement, and letters of reference. These students will be asked to participate in an interview with the program coordinator to determine the fit with the program and student’s goals.

- Applicants who were educated outside Canada, whose primary language is not English and who graduated from a university where the language of instruction and examination was not English, must demonstrate proficiency in the English language through the successful completion of the following tests:
  - Test of English as a Foreign Language (TOEFL) with the following minimum required scores: Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
  - International English Language Testing Systems (IELTS) required score: 8.0 (Academic) with at least 6.5 for each component.
  - Certificate of English Proficiency (COPE) with the following minimum required scores: 86 total with 22 on the listening component, 22 on the reading component, and 32 on the writing component.
  - School of Continuing Studies, University of Toronto, Academic English course. Required score: a final grade of B in Level 60 (Advanced).

Program Requirements

Field: Clinical Embryology

- **Coursework.** Students must successfully complete a total of 9.5 full-course equivalents (FCEs) as follows:
  - 3.5 FCEs taken by all students:
    - LMP2000H Cell and Molecular Biology (0.5 FCE)
    - LMP2001H Biomedical Research Methods (0.5 FCE)
    - LMP2002H Clinical Laboratory Management (0.5 FCE)
    - LMP2003H Biomedical Ethics (0.5 FCE)
    - LMP2004H Biostatistics (0.5 FCE)
    - LMP2005Y0 Capstone Project in Laboratory Medicine (1.0 FCE)
  - 2.0 FCEs specific to this field:
    - LMP2210H Practicum in Surgical Pathology I (0.5 FCE)
    - LMP2211H Advanced Anatomy Dissection (0.5 FCE)
  - 4.0 FCEs of practicum courses
    - LMP2008H Biobanking for Research (0.5 FCE)
    - LMP2207H Practicum in Surgical Pathology II (0.5 FCE)
    - LMP2208H Practicum in Surgical Pathology III (0.5 FCE)
    - LMP2209H Practicum in Surgical Pathology IV (0.5 FCE)
    - LMP2210H Practicum in Surgical Pathology V (0.5 FCE)
    - LMP2210H Practicum in Surgical Pathology VI (0.5 FCE).
- Students who fail a course will be offered remediation in the form of additional readings and assignments by the course director. If a student fails two courses or the offered remediation, they will be required to repeat the year.

Field: Pathologists’ Assistant

- **Coursework.** Students must successfully complete a total of 9.5 full-course equivalents (FCEs) as follows:
  - 3.5 FCEs taken by all students:
    - LMP2000H Cell and Molecular Biology (0.5 FCE)
    - LMP2001H Biomedical Research Methods (0.5 FCE)
    - LMP2002H Clinical Laboratory Management (0.5 FCE)
    - LMP2003H Biomedical Ethics (0.5 FCE)
    - LMP2004H Biostatistics (0.5 FCE)
    - LMP2005Y0 Capstone Project in Laboratory Medicine (1.0 FCE)
  - 2.0 FCEs specific to this field:
    - LMP2210H Basic Principles in Human Pathobiology and Pathophysiology (0.5 FCE)
    - LMP2211H Anatomy and Pathology of Organ Systems (0.5 FCE)
    - LMP2208H Biobanking for Research (0.5 FCE)
    - LMP2211H Advanced Anatomy Dissection (0.5 FCE)
  - 4.0 FCEs of practicum courses
    - LMP2008H Biobanking for Research (0.5 FCE)
    - LMP2207H Practicum in Surgical Pathology II (0.5 FCE)
    - LMP2208H Practicum in Surgical Pathology III (0.5 FCE)
    - LMP2209H Practicum in Surgical Pathology IV (0.5 FCE)
    - LMP2210H Practicum in Surgical Pathology V (0.5 FCE)
    - LMP2210H Practicum in Surgical Pathology VI (0.5 FCE).
- Students who fail a course will be offered remediation in the form of additional readings and assignments by the course director. If a student fails two courses or the offered remediation, they will be required to repeat the year.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Course that may continue over a program. The course is graded when completed.

LMP: Laboratory Medicine MHSc Courses

Not all courses are offered every year. Please check the departmental website for course availability.
### Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP2000H</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>LMP2001H</td>
<td>Biomedical Research Methods</td>
</tr>
<tr>
<td>LMP2002H</td>
<td>Clinical Laboratory Management</td>
</tr>
<tr>
<td>LMP2003H</td>
<td>Biomedical Ethics</td>
</tr>
<tr>
<td>LMP2004H</td>
<td>Biostatistics</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.*

### Clinical Embryology Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP2006H</td>
<td>Individual Reading/Research Course</td>
</tr>
<tr>
<td>LMP2100H</td>
<td>Advanced Reproductive Physiology and Pathology (exclusion: PSL420H Reproduction: Development and Function)</td>
</tr>
<tr>
<td>LMP2102H</td>
<td>Foundations in ART (Assisted Reproductive Technology) (prerequisite: LMP2100H)</td>
</tr>
<tr>
<td>LMP2103H</td>
<td>Reproductive Genetics (prerequisites: LMP2000H, LMP2100H)</td>
</tr>
<tr>
<td>LMP2104H</td>
<td>Applied Methods in ART (prerequisite: LMP2102H)</td>
</tr>
<tr>
<td>LMP2106H</td>
<td>Current Topics in Causes and Treatment of Infertility (prerequisites: LMP2100H, LMP2102H)</td>
</tr>
<tr>
<td>LMP2107H</td>
<td>Applied ART Laboratory Decision Making (prerequisites: LMP2100H, LMP2102H, LMP2105H, MSC1008H)</td>
</tr>
<tr>
<td>LMP2108H</td>
<td>Clinical Embryology Laboratory Simulation I (prerequisites: LMP2102H, LMP2104H, LMP2107H)</td>
</tr>
<tr>
<td>LMP2109H</td>
<td>Clinical Embryology Laboratory Simulation II (prerequisites: LMP2102H, LMP2104H, LMP2107H)</td>
</tr>
<tr>
<td>LMP2110H</td>
<td>ART Lab Rotations</td>
</tr>
</tbody>
</table>

### MSc: Laboratory Medicine and Pathobiology

#### Master of Science

**Program Description**

The MSc program emphasizes the development of analytical technologies, the application of basic research techniques in biochemistry, cell biology, clinical biochemistry, experimental...
pathology, genetics, immunology, and molecular biology to the study of mechanisms of cell and tissue injury and the pathogenesis of disease. The program also emphasizes the nature, mechanisms, therapy, and prevention of microbial diseases in humans, as well as the processes by which pathogenic microbes are spread.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Laboratory Medicine and Pathobiology's additional admission requirements stated below.
- Applicants must have completed, or be about to complete, one of the following:
  - Pathobiology Specialist program
  - an appropriate bachelor's degree in life sciences from a recognized university
  - professional degree (for example, MD, DDS, DVM, or equivalent).
- A minimum A– average over the final two years of undergraduate study.
- Two strong letters of recommendation from faculty members familiar with the applicant's academic work.
- Detailed curriculum vitae (CV).
- Statement of intent (approximately 250 words).
- Research experience evidenced by publications, abstracts, or presentations is an asset.
- Successful applicants are selected by the departmental admissions committee on the basis of academic excellence.
- Admission is finalized when a graduate faculty member agrees to supervise the student's research and guarantees a full stipend for the student.

Program Requirements

- **Coursework.** Students must complete **1.5 full-course equivalents (FCEs)** as follows:
  - LMP1005H Fundamentals of Research Practice (0.5 FCE)
  - LMP1001H Student Seminar I (0.5 FCE; Credit/No Credit) and LMP1002H Student Seminar II (0.5 FCE; Credit/No Credit).
- Completion of a **thesis** (RST9999Y) under the direction of the student's supervisor, assisted by the advisory committee.
- The research content of the MSc thesis is expected to generate the equivalent of one paper published in a peer-reviewed scientific journal.
- **Residence.** Students must be on campus and participating for the duration of their registration in the program.

Program Length

5 sessions (2 years) full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

LMP: Laboratory Medicine and Pathobiology

PhD

Doctor of Philosophy

Program Description

The PhD program emphasizes the development of analytical technologies, the application of basic research techniques in biochemistry, cell biology, clinical biochemistry, experimental pathology, genetics, immunology, and molecular biology to the study of mechanisms of cell and tissue injury and the pathogenesis of disease. The program also emphasizes the nature, mechanisms, therapy, and prevention of microbial diseases in humans, as well as the processes by which pathogenic microbes are spread.

Applicants may enter the PhD program via one of three routes: 1) following completion of an MSc degree; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion of a BSc degree.

A limited number of selected students may enter the combined degree program in Medicine, Doctor of /Doctor of Philosophy (MD/PhD) subject to admission into both the departmental PhD program and the MD program.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Laboratory Medicine and Pathobiology’s additional admission requirements stated below.
- Research experience evidenced by peer-reviewed publications, abstracts, or presentations is normally required.
- Three strong letters of recommendation from faculty members familiar with the applicant's academic work. Normally, one of the referees should be the applicant's research supervisor.
- A detailed curriculum vitae (CV).
- Statement of intent (approximately 250 words).
- Applicants are selected by the departmental admissions committee on the basis of academic excellence. Admission to the program is finalized when a graduate faculty member agrees to supervise the student's research and guarantees a full stipend for the student.
- A limited number of selected students may enter the MD/PhD program subject to admission into both the departmental PhD program and the MD program.

Program Requirements

- **Coursework.** Students must complete **1.0 full-course equivalent (FCE)** as follows:
  - LMP1003H0 Student Seminar III (0.5 FCE; Credit/No Credit)
  - an additional 0.5 elective FCE.
- The PhD **thesis** (RST9999Y) is completed under the direction of the candidate's supervisor, assisted by the advisory committee. The PhD thesis must demonstrate a
substantial contribution to laboratory medicine and pathobiology, involving a systematic investigation of disease-related hypotheses. The emphasis is on quality of the science and its presentation. The PhD thesis is normally expected to yield the equivalent of three publications in refereed scientific journals.

- **Residence.** Students must be on campus and participating for the duration of their registration in the program.

### Program Length

4 years

### Time Limit

6 years

*Course that may continue over a program. Credit is given when the course is completed.*

### PhD Program (Transfer)

#### Transfer Requirements

Transfer applicants must:

- Be enrolled in the MSc program in Laboratory Medicine and Pathobiology. Excellent students with high academic standing (normally a minimum A– average on MSc courses) who have clearly demonstrated the ability to do research at the doctoral level may be considered for transfer to the PhD program. Recommendation of the advisory committee is required.
- Successfully complete a reclassification transfer exam within 24 months of starting the MSc Program.
- Successfully complete LMP1001H Student Seminar I and LMP1005H Fundamentals of Research Practice at the master’s level.
- Be concurrently enrolled in LMP1002H Student Seminar II at the time of writing the reclassification exam.

#### Program Requirements

- **Coursework.** Students must complete 2.5 full-course equivalents (FCEs) as follows:
  - LMP1005H Fundamentals of Research Practice (0.5 FCE; Credit/No Credit)
  - LMP1001H Student Seminar I (0.5 FCE; Credit/No Credit)
  - LMP1002H Student Seminar II (0.5 FCE; Credit/No Credit)
  - LMP1003H Student Seminar III (0.5 FCE; Credit/No Credit)
  - an additional 0.5 elective FCE.

- **The PhD thesis (RST9999Y)** is completed under the direction of the candidate’s supervisor, assisted by the advisory committee. The candidate normally defends the thesis before a departmental committee, and subsequently before a committee approved by the School of Graduate Studies. Candidates may, with the recommendation of their advisory committee, request a waiver of the departmental defence, subject to approval by the Graduate Coordinator.

### Program Length

5 years

### Time Limit

7 years

*Course that may continue over a program. Credit is given when the course is completed.*

### PhD Program (Direct-Entry)

#### Minimum Admission Requirements

- Direct entry is available for highly qualified BSc graduates who have completed the Pathobiology Specialist program or an appropriate undergraduate program in the life sciences from a recognized university with a minimum A average in the final two years and relevant research experience.
- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Laboratory Medicine and Pathobiology’s additional admission requirements stated below.
- Research experience evidenced by peer-reviewed publications, abstracts, or presentations is normally required.
- Three strong letters of recommendation from faculty members familiar with the applicant’s academic work. Normally, one of the referees should be the applicant's research supervisor.
- A detailed curriculum vitae (CV).
- Statement of intent (approximately 250 words).
- Applicants are selected by the departmental admissions committee on the basis of academic excellence. Admission to the program is finalized when a graduate faculty member agrees to supervise the student’s research and guarantees a full stipend for the student.

#### Program Requirements

- **Coursework.** Students must complete 2.5 full-course equivalents (FCEs) as follows:
  - LMP1005H Fundamentals of Research Practice (0.5 FCE; Credit/No Credit)
  - LMP1001H Student Seminar I (0.5 FCE; Credit/No Credit)
  - LMP1002H Student Seminar II (0.5 FCE; Credit/No Credit)
  - LMP1003H Student Seminar III (0.5 FCE; Credit/No Credit)
  - an additional 0.5 elective FCE.

- **The PhD thesis (RST9999Y)** is completed under the direction of the candidate’s supervisor, assisted by the
advisory committee. The candidate normally defends the thesis before a departmental committee, and subsequently before a committee approved by the School of Graduate Studies. Candidates may, with the recommendation of their advisory committee, request a waiver of the departmental defence, subject to approval by the Graduate Coordinator.

- The PhD thesis must demonstrate a substantial contribution to laboratory medicine and pathobiology, involving a systematic investigation of disease-related hypotheses. The emphasis is on quality of the science and its presentation. The PhD thesis is normally expected to yield the equivalent of three publications in refereed scientific journals.
- **Residence.** Students must be on campus and participating for the duration of their registration in the program.

### Program Length

5 years

### Time Limit

7 years


### LMP: Laboratory Medicine and Pathobiology

**MSc, PhD Courses**

Not all courses are offered every year. Please check the departmental website for course availability.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP1001H</td>
<td>Student Seminar I (Credit/No Credit)</td>
</tr>
<tr>
<td>LMP1002H</td>
<td>Student Seminar II (Credit/No Credit)</td>
</tr>
<tr>
<td>LMP1003H</td>
<td>Student Seminar III (Credit/No Credit)</td>
</tr>
<tr>
<td>LMP1005H</td>
<td>Fundamentals of Research Practice (Credit/No Credit)</td>
</tr>
<tr>
<td>LMP1100H</td>
<td>Cellular Imaging in Pathobiology (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1101H</td>
<td>Basic Concepts in Inflammatory/Autoimmune Arthritis (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1102H</td>
<td>Clinical Concepts in Inflammatory/Autoimmune Arthritis (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1103H</td>
<td>Tissue Injury, Repair, and Regeneration (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1104H</td>
<td>Current Understanding of Ischemic Heart Disease (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1105H</td>
<td>Current Understanding of Atherosclerosis (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1106H</td>
<td>Molecular Biology Techniques (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1107H</td>
<td>Bioinformatics in LMP (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1108H</td>
<td>Genomic Analysis in Medicine (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1109H</td>
<td>Advanced Concepts in Cancer Biology (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1110H</td>
<td>Neural Stem Cells: Brain Development and Maintenance (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1111H</td>
<td>Introduction to R and the Analysis of Single Cell Data (0.25 FCE)</td>
</tr>
<tr>
<td>LMP1200H</td>
<td>Neoplasia</td>
</tr>
<tr>
<td>LMP1201H</td>
<td>Research Techniques in Molecular Biology and Pathobiology</td>
</tr>
<tr>
<td>LMP1202H</td>
<td>Inflammation, Immunity, and Immunopathology of Atherosclerosis</td>
</tr>
<tr>
<td>LMP1203H</td>
<td>Analytical Clinical Biochemistry: Basic Principles</td>
</tr>
<tr>
<td>LMP1204H</td>
<td>Translational Research in Pathobiology</td>
</tr>
<tr>
<td>LMP1205H</td>
<td>The Role of Genomics in the Era of Personalized Medicine</td>
</tr>
<tr>
<td>LMP1206H</td>
<td>Next Generation Genomics in Clinical Medicine</td>
</tr>
<tr>
<td>LMP1207H</td>
<td>Mass Spectrometry, Proteomics, and Their Clinical Applications</td>
</tr>
<tr>
<td>LMP1208H</td>
<td>Molecular Clinical Microbiology and Infectious Diseases</td>
</tr>
<tr>
<td>LMP1209H</td>
<td>Neurodegenerative Disease — Mechanisms, Models, and Methods</td>
</tr>
<tr>
<td>LMP1210H</td>
<td>Basic Principles of Machine Learning in Biomedical Research</td>
</tr>
<tr>
<td>LMP1300Y</td>
<td>General and Special Pathology (for Oral Pathology Residents only)</td>
</tr>
</tbody>
</table>


### LMP: Translational Research in the Health Sciences

**MHSc**

**Master of Health Science**

**Program Description**

This two-year, course-based program is designed for interprofessional students from diverse backgrounds (such as medicine, life sciences, social sciences, engineering, design, and communications) who want to learn creative problem-solving skills, strategies, and competencies to translate (scientific) knowledge into innovations that improve medicine, health, and care.
Through flexible coursework, team-based, real-world translational challenges, and extensive mentorship and networking, the department facilitates self-directed collaborative “learning by doing”: students gain experience, expertise, and practical insights into development and design processes, regulatory frameworks, and translational networks and strategies to develop, lead, test, and implement innovations. The program’s mission is to challenge students to think differently so that they learn to champion change in their communities and contexts. This cohort-based program commences in September.

Minimum Admission Requirements

- Applicants are admitted on the basis of academic preparation, references, and motivation. All applicants must demonstrate exceptional scholarly achievement and significant research experience.
- An appropriate bachelor's (BSc) degree or an MD degree from a recognized university, and academic credentials and background preparation appropriate to the area of study with an A– average in at least three of the four years.
- Applicants with significant research, industry, or government experience in professional health science or related social science, and/or academic research master's or PhD are also encouraged to apply.
- The application must be accompanied by:
  - A current curriculum vitae (CV).
  - A letter of intent or statement of professional goals.
  - Three letters of reference.
- Applicants whose primary language is not English, and who graduated from a university where the language of instruction was not English, must demonstrate proficiency in the English language through the successful completion of the following English-language proficiency tests:
  - Test of English as a Foreign Language (TOEFL): a minimum score of 600 on the paper-based test and 5 on the Test of Written English (TWE); or a minimum score of 93/120 on the Internet-based test and 22/30 on the writing and speaking sections.
  - Tests must be completed in the year prior to application to the program.
- Deadline for receipt of applications is May 1 for international students and June 1 for domestic students. Admission spots are limited; not all applicants who meet the prerequisites will be admitted. Applicants are screened for eligibility and shortlisted applicants will be interviewed.

Program Requirements

- Within this two-year, five-session program, students must complete a total of 8.0 full-course equivalents (FCEs) as follows:
  - Year 1:
    - LMP2300Y Foundations in Translational Research (1.0 FCE, Fall and Winter)
    - LMP2320H Overview of Methods in Practices and Contexts (0.5 FCE; Winter)
    - LMP2322H Information, Media, and Communication Literacy for the Sciences (0.5 FCE, Fall)
    - LMP2301Y Projects in Translational Research (1.0 FCE, Fall and Winter)
    - LMP2330Y* Capstone Project in Translational Research (2.0 FCEs, Summer).
  - Years 1 and 2:
    - 2.0 FCEs: eight modular courses (0.25 FCE each).
  - Year 2:
    - LMP2330Y* Capstone Project in Translational Research (Fall and Winter)
    - 1.0 elective FCE with approval from the Program Director.

Program Length

5 sessions full-time (F/W/S/F/W)

Time Limit

3 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

LMP: Translational Research in the Health Sciences MHSc Courses

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP2300Y</td>
<td>Foundations in Translational Research</td>
</tr>
<tr>
<td>LMP2301Y</td>
<td>Projects in Translational Research</td>
</tr>
<tr>
<td>LMP2320H</td>
<td>Overview of Methods in Practices and Contexts</td>
</tr>
<tr>
<td>LMP2322H</td>
<td>Information, Media, and Communication Literacy for the Sciences</td>
</tr>
<tr>
<td>LMP2330Y*</td>
<td>Capstone Project in Translational Research (2.0 FCEs)</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
## Modular Courses (Credit/No Credit; 0.25 FCE each)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP2340H</td>
<td>Project Management I</td>
</tr>
<tr>
<td>LMP2341H</td>
<td>Project Management II (prerequisite: LMP2340H or permission of the program director)</td>
</tr>
<tr>
<td>LMP2342H</td>
<td>Intellectual Property Fundamentals</td>
</tr>
<tr>
<td>LMP2343H</td>
<td>Applied Intellectual Property (prerequisite: LMP2342H or permission of the program director)</td>
</tr>
<tr>
<td>LMP2344H</td>
<td>Translational Thinking</td>
</tr>
<tr>
<td>LMP2345H</td>
<td>Procurement, Privacy, and Regulatory Affairs</td>
</tr>
<tr>
<td>LMP2346H</td>
<td>Grant Writing</td>
</tr>
<tr>
<td>LMP2347H</td>
<td>Economics of Healthcare</td>
</tr>
<tr>
<td>LMP2348H</td>
<td>Knowledge Translation and the Community</td>
</tr>
<tr>
<td>LMP2349H</td>
<td>Student Work and Research Module (SWARM)</td>
</tr>
<tr>
<td>LMP2350H</td>
<td>Professionalism</td>
</tr>
<tr>
<td>LMP2351H</td>
<td>Leadership</td>
</tr>
<tr>
<td>LMP2352H</td>
<td>Intrapreneurship, Entrepreneurship, and Business Model Design</td>
</tr>
<tr>
<td>LMP2353H</td>
<td>Introduction to AI in Healthcare</td>
</tr>
<tr>
<td>LMP2354H</td>
<td>Hacking Network</td>
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<tr>
<td>LMP2355H</td>
<td>Business Thinking</td>
</tr>
<tr>
<td>LMP2390H</td>
<td>Selected Topics</td>
</tr>
</tbody>
</table>
Overview

The international reputation of the law school’s faculty, their breadth of interests and approaches, and the intensive intellectual atmosphere, create outstanding opportunities for graduate students pursuing advanced degrees.

Law faculty members are some of the finest doctrinal and theoretical legal scholars in public and private law. The diversity of research interests amongst the faculty allows them to supervise graduate research in almost all areas of legal scholarship. The pluralistic academic community invites a variety of approaches to legal scholarship including, but not limited to, feminism and the law, law and economics, legal history, law and society, analytical jurisprudence, and critical legal theory. Over a third of the faculty are cross-appointed to other units — a commitment to interdisciplinary scholarship which encourages students to position their legal research within a broader, interdisciplinary context.

Strong relationships with faculty members are forged by the supervisory relationship, as well as through numerous informal opportunities to interact with faculty. The many workshops, lecture series, seminars and roundtables foster a dynamic intellectual environment. Through the Distinguished Visiting Faculty program, students have the opportunity to meet with and learn from some of the world’s finest legal scholars.

In addition to the formal study program, graduate students can participate in internships through Pro Bono Students Canada and the International Human Rights Program.

Inquiries should be directed to the Graduate Program Coordinator, Graduate Program, Faculty of Law at the address below.

Contact and Address

LLM, MSL, and SJD Program Inquiries

Web: www.law.utoronto.ca/academic-programs/graduate-programs
Email: gradadmissions.law@utoronto.ca
Telephone: (416) 978-0213

University of Toronto Faculty of Law
Graduate Programs
Falconer Hall
78 Queen’s Park
Toronto, Ontario, M5S 2C5

GPLLM Program Inquiries

Web: gppllm.law.utoronto.ca
Email: admissions.gpllm@utoronto.ca
Telephone: (416) 946-7384

University of Toronto Faculty of Law
GPLLM Program
Falconer Hall
78 Queen’s Park
Toronto, Ontario, M5S 2C5
Law: Graduate Faculty

Full Members

Alarie, Benjamin - LLB, AB, LLM, MA, Osler Chair in Business Law
Anand, Anita - BA, LLB, MA, LLM
Austin, Lisa - BA, BSc, LLB, MA, Chair in Law and Economics of Intellectual Property
Benson, Peter - LLB, LLM, PhD
Brunnée, Jutta - LLM, SJD, James Marshall Tory Dean's Chair (Dean)
Chapman, Bruce - BA, LLB, PhD
Chiao, Vincent - BA, JD, PhD
Cossman, Brenda - LLB, LLM, Goodman/Schipper Chair
Dawood, Yasmin - BA, JD, MA, PhD
Drassinower, Abraham - BPhil, LLB, MA, PhD
Dubber, Markus - AB, JD
Duggan, Anthony - BA, LLB, LLM, LLD
Dyzenhaus, David - BA, LLB, DPhil
Emon, Anver - LLB, BA, LLM, MA, PhD, SJD, CRC
Essert, Christopher - BA, LLM, JD, SJD
Fadel, Mohammad - BA, JD, PhD
Fernandez, Angela - LLB, BA, BCL, LLM, MA, SJD
Flood, Colleen - LLB, LLM, SJD
Green, Andrew - LLB, BA, LLM, MA, PhD, Metcalf Chair in Environmental Law
Hadfield, Gillian - BA, JD, PhD, Schwartz Reisman Chair in Technology and Society
Iacobucci, Edward - LLB, MPH, Toronto Stock Exchange Chair in Capital Markets
Katz, Ariel - LLB, LLM, SJD
Katz, Larissa - BA, LLB, LLM, SJD, CRC (Associate Dean, Graduate Program)
Langille, Brian A - LLB, BCL, BA
Lee, Ian - LLB, BCom, LLM
Lemmens, Trudo - LLM, DCL, Dr. William M. Scholl Chair in Health Law and Policy
Macintosh, Jeffrey - BSc, LLB, LLM
Macklem, Patrick - BA, LLB, LLM
Macklin, Audrey - BSc, LLB, LLM
Moran, Mayo - BA, LLB, LLM, SJD
Moreau, Sophia - BA, BPhil, JD, PhD
Morgan, Edward - LLB, BA, LLM
Niblett, Anthony - BCom, PhD, CRC
Phillips, James - LLB, MA, PhD
Prado, Mariana - LLB, LLM, SJD, William C. Graham Chair in International Law and Development
Reaume, Denise - BA, LLB, BCL
Ripstein, Arthur S. - BA, MA, LLM, PhD, Howard Beck, Q.C. Chair
Rittich, Kerry - BAMus, LLB, SJD
Roach, Kent - BA, LLB, LLM
Roberson, Carol - BA, LLB, MA, LLM
Schneiderman, David - BA, LLB, LLM
Shachar, Ayelet - LLB, BA, LLM, SJD
Shaffer, Martha - LLB, LLM, MAcc
Stacey, Richard - LLB, BA, SJD
Stern, Simon - BA, JD, PhD, Chair in Electronic Commerce
Stewart, Hamish - BA, LLB, MA, PhD
Su, Anna - JD, LLM, SJD
Thorburn, Malcolm - BA, JD, MA, LLM, SJD
Trebilcock, Michael - LLB, LLM
Valcke, Catherine - BCL, LLB, LLM, SJD
Valverde, Mariana - BA, MA, PhD, FRSC
Weinrib, Ernest - BA, LLB, PhD
Weinrib, Lorraine - BA, LLB, LLM
Yoon, Albert - BA, LLB, MA, PhD, Chair in Law and Economics of Intellectual Property

Members Emeriti

Dickens, Bernard - LLB, LLM, PhD
Friedland, Martin - BCom, LLB, PhD

Associate Members

Hirschl, Ran - BA, LLB, MA, MPH, PhD, CRC
Sanderson, Douglas - BA, JD, LLM, J. Robert S. Prichard and Ann E. Wilson Chair in Law and Public Policy

Law: Law LLM

Master of Laws

Program Description

The Master of Laws (LLM) is a one-year degree program that provides students with an opportunity for more profound study beyond their first law degree.

The LLM program can be thesis-intensive (with both a short or long thesis option) or coursework-only. The short and long thesis options are for law students who have demonstrated a strong potential for advanced research and original scholarship. The coursework-only option is for law students who wish to specialize in a specific area of law or explore common law at an advanced level.

Within the LLM program, students also have the option of applying to pursue one of four areas of concentration:

- LLM with a Concentration in Business Law
- LLM with a Concentration in Criminal Law
- LLM with a Concentration in Health Law, Ethics, and Policy
- LLM with a Concentration in Legal Theory.

Students accepted into a concentration will receive a designation on their transcript. There are a limited number of spots available for students in each concentration, and acceptance into the concentrations will be competitive.

The program is completed on a full-time basis. Part-time registration may be considered in exceptional circumstances.

Law: Law LLM (No Concentration): Thesis Option

LLM Program (No Concentration): Thesis Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law's additional admission requirements stated below.
• Applicants must have obtained a Bachelor of Laws or Juris Doctor degree, or the international equivalent of a law degree, from a recognized university. Applicants must have a minimum B+ average in the final year of their legal studies. Preference will be given to applicants who maintain this average throughout their legal studies, i.e., throughout their entire law degree.

• Applicants whose primary language is not English and who obtained their admitting degree (Bachelor of Laws, Juris Doctor, or equivalent) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests:
  o The Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    ▪ Paper-based TOEFL: minimum overall score of 600, and 5 on the Test of Written English (TWE)
    ▪ Internet-based TOEFL: minimum overall score of 100/120, and 24/30 on each section.
  o IELTS, Academic module: overall score of 7.5 with at least 7.0 in each component.
  o The University of Toronto Academic English preparation course: overall grade of A in Level 60.
  o Canadian Academic English Language (CAEL) Online: overall score of 70 with at least 70 in each component.
  o Cambridge English Qualifications: overall score of 191 with at least 185 on each section.
• No conditional offers of admission will be given based on successful completion of an English language test.

Program Requirements

• Students must complete a course of studies and a thesis which, combined, are valued at 24 credit hours (equivalent to 6.0 full-course equivalents [FCEs]).

• Students writing a short thesis must:
  o Complete 20 credit hours of coursework (equivalent to 5.0 FCEs); and
  o Write a thesis worth 4 credit hours (equivalent to 1.0 FCE), and approximately 45 pages or 13,000 words, under the supervision of a graduate faculty member.

• Students writing a long thesis must:
  o Complete 8 credit hours (equivalent to 2.0 FCEs) of coursework; and
  o Write a thesis worth 16 credit hours (equivalent to 4.0 FCEs), and approximately 175 pages or 52,000 words, under the supervision of a graduate faculty member.

• All thesis students must complete:
  o The mandatory graduate seminar for all LLM students who are writing a thesis: LAW1000H Alternative Approaches to Legal Scholarship (3 credits, or 0.75 FCE); and
  o The mandatory graduate seminar for all LLM students: LAW7572H LLM Seminar (1 credit, or 0.25 FCE).

• All coursework and the student's thesis are graded using the graduating grade scale as outlined in the University Assessment and Grading Practices Policy.

• The Faculty offers thesis students some flexibility regarding the number of credits allocated to their thesis. Students writing a short thesis can choose to write a slightly longer thesis for additional credit, and students writing a long thesis can choose to write a slightly shorter thesis for fewer credits. Students who wish to reduce or increase their thesis credits should contact the graduate program coordinator before the Fall add/drop deadline.

• The coursework requirements must be completed by the Faculty’s Winter sessional deadline of the academic year of attendance; the thesis must be completed by July 31 of the academic year of attendance.

• With approval of the Associate Dean, Graduate Studies at the Faculty of Law, the program may be taken on a part-time basis over two years, in which case the coursework requirements must be completed by the Faculty’s Winter sessional deadlines of the second academic year of attendance; the thesis must be completed by July 31 of the second academic year of attendance.

• Residence. Full-time students must be in attendance for at least two academic sessions (eight months, September to April). Part-time students must be in attendance for at least four academic sessions (September to April of both years of study).

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time (exceptional circumstances only)

Time Limit

3 years full-time; 6 years part-time (exceptional circumstances only)

Law: Law LLM (No Concentration): Coursework-Only Option

LLM Program (No Concentration): Coursework-Only Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law’s additional admission requirements stated below.

• Applicants must have obtained a Bachelor of Laws or Juris Doctor degree, or the international equivalent of a law degree, from a recognized university. Applicants must have a minimum B+ average in the final year of their legal studies. Preference will be given to applicants who maintain this average throughout their legal studies, i.e., throughout their entire law degree.

• Applicants whose primary language is not English and who obtained their admitting degree (Bachelor of Laws, Juris Doctor, or equivalent) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests:
  o The Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    ▪ Paper-based TOEFL: minimum overall score of 600, and 5 on the Test of Written English (TWE)
- Internet-based TOEFL: minimum overall score of 100/120, and 24/30 on each section.
  - IELTS, Academic module: overall score of 7.5 with at least 7.0 in each component.
  - The University of Toronto Academic English preparation course: overall grade of A in Level 60.
  - Canadian Academic English Language (CAEL) Online: overall score of 70 with at least 70 in each component.
  - Cambridge English Qualifications: overall score of 191 with at least 185 on each section.
- No conditional offers of admission will be given based on successful completion of an English language test.

Program Requirements

- Students must complete a course of studies valued at 28 credit hours (equivalent to 7.0 full-course equivalents [FCEs]).
  - Writing requirement. Students pursuing the coursework-only option must satisfy the writing requirement by July 31 by either:
    - Designating one course (3 or 4 credits) as a writing requirement course. Only courses requiring a written assignment of at least 5,000 words (approximately 20 pages) will qualify as a designated writing requirement course. LAW1000H *Alternative Approaches to Legal Scholarship* and LAW7572H *LLM Seminar* do not qualify as a designated writing requirement course. or
    - Completing the directed research project course (2 or 3 credits; LAW8002H or LAW8003H) requiring a written assignment of 7,000 or 10,500 words, respectively.
- All students in the LLM program must complete the mandatory graduate seminar: LAW7572H *LLM Seminar* (1 credit, or 0.25 FCE);
- All coursework is graded using the graduate grading scale as outlined in the *University Assessment and Grading Practices Policy*.
- The coursework requirements for all courses apart from the designated writing requirement course must be completed by the Faculty’s Winter sessional deadlines of the academic year of attendance; the writing requirement must be fulfilled by July 31 of the academic year of attendance.
- With approval of the Associate Dean, Graduate Studies at the Faculty of Law, the program may be taken on a part-time basis over two years, in which case the coursework requirements must be completed by the Faculty’s Winter sessional deadlines of the second academic year of attendance; the writing requirement must be completed by July 31 of the second academic year of attendance.
- Continuation in Year 2 of the part-time LLM program is subject to the Faculty of Law’s determination that the student has made satisfactory progress in Year 1 of the part-time LLM.
- Residence. Full-time students must be in attendance for at least two academic sessions (eight months, September to April). Part-time students must be in attendance for at least four academic sessions (September to April of both years of study).

Program Length

- 3 sessions full-time (typical registration sequence: F/W/S);
- 6 sessions part-time (exceptional circumstances only)
Program Requirements

- Students must complete a total of 24 credits (6.0 full-course equivalents [FCEs]) through a combination of coursework and the thesis. The thesis must be in the area of concentration into which the student was accepted.
- Students writing a short thesis and pursuing a concentration must:
  - Complete 20 credit hours of coursework (equivalent to 5.0 FCEs), at least 8 credits (equivalent to 2.0 FCEs) of which must be taken from a list of courses in the area of concentration, which will be provided annually on the program website. The remaining required credits can be satisfied with courses either within or outside the area of concentration.
  - Write a 4-credit hours thesis (equivalent to 1.0 FCE); that is, approximately 45 pages or 13,000 words in length, in the area of concentration under the supervision of a graduate faculty member.
- Students writing a long thesis and pursuing a concentration must:
  - Complete 8 credit hours of coursework (equivalent to 2.0 FCEs).
  - Write a thesis worth 16 credit hours (equivalent to 4.0 FCEs) and approximately 175 pages or 52,000 words in length, in the area of concentration under the supervision of a graduate faculty member.
- Students pursuing the concentration in Legal Theory must complete the mandatory 3-credit course LAW7081H Foundations of Legal Theory (3 credits, or 0.75 FCE). This course will count towards the credits required for the area of concentration.
- All thesis students must complete:
  - The mandatory graduate seminar for all LLM students writing a thesis: LAW1000H Alternative Approaches to Legal Scholarship (3 credits, or 0.75 FCE).
  - The mandatory graduate seminar for all LLM students: LAW7572H LLM Seminar (1 credit, or 0.25 FCE).
- All coursework and the student's thesis are graded using the graduate grading scale as outlined in the University Assessment and Grading Practices Policy.
- The Faculty offers thesis students some flexibility regarding the number of credits allocated to their thesis. Students writing a short thesis can choose to write a slightly longer thesis for additional credit, and students writing a long thesis can choose to write a slightly shorter thesis for fewer credits. Students who wish to reduce or increase their thesis credits should contact the graduate program coordinator before the Fall add/drop deadline.
- The coursework requirements must be completed by the Faculty's Winter sessional deadline of the academic year of attendance; the thesis must be completed by July 31 of the academic year of attendance.
- With approval of the Associate Dean, Graduate Studies at the Faculty of Law, the program may be taken on a part-time basis over two years, in which case the coursework requirements must be completed by the Faculty's Winter sessional deadlines of the second academic year of attendance; the thesis must be completed by July 31 of the second academic year of attendance.
- Residence. Full-time students must be in attendance for at least two academic sessions (eight months, September to April). Part-time students must be in attendance for at least four academic sessions (September to April of both years of study).

Program Length

- 3 sessions full-time (typical registration sequence: F/W/S);
- 6 sessions part-time (exceptional circumstances only)

Time Limit

- 3 years full-time;
- 6 years part-time (exceptional circumstances only)

Law: Law LLM (With a Concentration):
Coursework-Only Option

LLM Program (With a Concentration):
Coursework-Only Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law's additional admission requirements stated below.
- Applicants must have obtained a Bachelor of Laws or Juris Doctor degree, or the international equivalent of a law degree, from a recognized university. Applicants must have a minimum B+ average in the final year of their legal studies. Preference will be given to applicants who maintain this average throughout their legal studies, i.e., throughout their entire law degree.
- Applicants whose primary language is not English and who obtained their admitting degree (Bachelor of Laws, Juris Doctor, or equivalent) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests:
  - The Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - Paper-based TOEFL: minimum overall score of 600, and 5 on the Test of Written English (TWE)
    - Internet-based TOEFL: minimum overall score of 100/120, and 24/30 on each section.
  - IELTS, Academic module: overall score of 7.5 with at least 7.0 in each component.
  - The University of Toronto Academic English preparation course: overall grade of A in Level 60.
  - Cambridge English Qualifications: overall score of 191 with at least 185 on each section.
- No conditional offers of admission will be given based on successful completion of an English language test.
- Applicants applying to one of the four areas of concentration must substantiate their interest in and suitability for the concentration in their statement of interest. Applicants may only apply to one of the areas of concentration. Applicants may be admitted into the LLM program without a concentration.
Program Requirements

- Students must complete a course of studies valued at 28 credit hours (equivalent to 7.0 full-course equivalents [FCEs]).
  - Writing requirement. Students pursuing the coursework-only option must satisfy the writing requirement by July 31 by either:
    - Designating one course (3 or 4 credits) as a writing requirement course, which must be in the area of concentration. Only courses requiring a written assignment of at least 5,000 words (approximately 20 pages) will qualify as a designated writing requirement course. LAW1000H Alternative Approaches to Legal Scholarship, LAW7572H LLM Seminar, and LAW7077H Introduction to the Canadian Legal System do not qualify as a designated writing requirement course.
    - Completing the directed research project course (2 or 3 credits; LAW8002H or LAW8003H) requiring a written assignment of 7,000 or 10,500 words, respectively.
  - At least 12 of the credits (equivalent to 4.0 FCEs) must be completed from a list of courses in the area of concentration into which the student was accepted. A list of eligible courses will be provided annually on the program website.
  - Students pursuing the concentration in Legal Theory must complete the mandatory 3-credit course, LAW7081H Foundations of Legal Theory (3 credits, or 0.75 FCE). This course will count towards the credits required for the area of concentration.
  - All students in the LLM program must complete the mandatory graduate seminar: LAW7572H LLM Seminar (1 credit, or 0.25 FCE).
  - All coursework is graded using the graduate grading scale as outlined in the University Assessment and Grading Practices Policy.
  - The coursework requirements for all courses apart from the designated writing requirement course must be completed by the Faculty’s Winter sessional deadlines of the academic year of attendance; the writing requirement must be fulfilled by July 31 of the academic year of attendance.
  - With approval of the Associate Dean, Graduate Studies at the Faculty of Law, the program may be taken on a part-time basis over two years, in which case the coursework requirements must be completed by the Faculty’s Winter sessional deadlines of the second academic year of attendance; the writing requirement must be completed by July 31 of the second academic year of attendance.
  - Continuation in Year 2 of the part-time LLM program is subject to the Faculty of Law’s determination that the student has made satisfactory progress in Year 1 of the part-time LLM studies.
  - Residence. Full-time students must be in attendance for at least two academic sessions (eight months, September to April). Part-time students must be in attendance for at least four academic sessions (September to April of both years of study). Students must be in attendance for at least two academic sessions (eight months, September to April).

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time (exceptional circumstances only)

Time Limit

3 years full-time;
6 years part-time (exceptional circumstances only)

Law: Law LLM (Dual Degree: LLB National University of Singapore / LLM)

Dual Degree Program: Bachelor of Laws (National University of Singapore) / Master of Laws (University of Toronto)

Program Description

This dual degree program is offered as part of the Master of Laws (LLM)'s coursework-only option, with or without a concentration. Students are not eligible to take the thesis option.

Students complete three years of a Bachelor of Laws (LLB) from the National University of Singapore (NUS), and in Year 4 complete the LLM degree at the University of Toronto. Students complete the LLB and LLM degrees in four years rather than the five years it would take to attain them separately. See the LLM coursework requirements (with or without a concentration) above.

Upon successful completion of the degree requirements of both programs, students receive a Bachelor of Laws degree and a Master of Laws degree.

Contact

Bachelor of Laws Program
Faculty of Law, National University of Singapore
Email: lawUGadm@nus.edu.sg

Master of Laws Program
Faculty of Law, University of Toronto
Email: gradadmissions.law@utoronto.ca

Application Process

- Initial consideration for admission to the dual degree program will be based on the applicant’s performance during the first three terms of the NUS LLB program.
- All offers of admission to the dual degree program will be conditional upon successful completion of all Year 1, 2, and 3 requirements of the LLB program before starting the LLM program.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law’s additional admission requirements stated below.
- Successful completion of the first three years of the NUS LLB program, with the equivalent of a B+ average. Preference will
be given to those who maintain this average throughout their legal studies.

- Applicants applying to one of the four areas of concentration must substantiate their interest in and suitability for the particular area of concentration in their statement of interest. Applicants may only apply to one of the areas of concentration. Applicants may be admitted into the LLM program without a concentration.

- Residence. Students must be in attendance for at least two academic sessions (eight months, September to April).

**Law: Law LLM (Dual Degree: LLB Torcuato Di Tella University / LLM)**

**Dual Degree Program: Bachelor of Laws (Torcuato Di Tella University) / Master of Laws (University of Toronto)**

**Program Description**

This dual degree program is offered as part of the Master of Laws (LLM)’s coursework-only option, with or without a concentration. Students are not eligible to take the thesis option. Students complete nine sessions (four and a half years) of a Bachelor of Laws (LLB) from Torcuato Di Tella University (UTDT). In the Fall session of Year 5, students register in the University of Toronto LLM degree program and complete three sessions (September through August). Students complete the LLB and LLM degrees in five and a half years (11 sessions) rather than the six years it would take to attain them separately. See the LLM coursework requirements (with or without a concentration).

Upon successful completion of the degree requirements of both programs, students receive a Bachelor of Laws degree and a Master of Laws degree.

**Contact**

- Bachelor of Laws Program
  Faculty of Law, Torcuato Di Tella University
  Email: alexm@utdt.edu

- Master of Laws Program
  Faculty of Law, University of Toronto
  Email: gradadmissions.law@utoronto.ca

**Application Process**

- Initial consideration for admission to the dual degree program will be based on the applicant’s performance during the first eight sessions of the UTDT LLB program.

- All offers of admission to the dual degree program will be conditional upon successful completion of all Year 1, 2, 3, and 4 requirements of the LLB program before starting the LLM program.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law’s additional admission requirements stated below.

- Successful completion of the first nine sessions (four and a half years) of the UTDT LLB program, with the equivalent of a B+ average. Preference will be given to those who maintain this average throughout their legal studies.

- Applicants applying to one of the four areas of concentration must substantiate their interest in and suitability for the area of concentration in their statement of interest. Applicants may only apply to one of the areas of concentration. Applicants may be admitted into the LLM program without a concentration.

- Residence. Students must be in attendance for at least two academic sessions (eight months, September to April).

**Law: Law LLM (Dual Degree: LLB Tsinghua University / LLM)**

**Dual Degree Program: Bachelor of Laws (Tsinghua University) / Master of Laws (University of Toronto)**

**Admissions to this dual degree are suspended for the 2024-25 admissions cycle.**

**Program Description**

This dual degree program is offered as part of the Master of Laws (LLM)’s coursework-only option, with or without a concentration. Students are not eligible to take the thesis option. Students complete two years of a Bachelor of Laws (LLB) from Tsinghua University, and in Year 3 complete the LLM degree at the University of Toronto.

Students complete the LLB and LLM degrees in four years rather than the five years it would take to attain them separately. See the LLM coursework requirements (with or without a concentration) above.

Upon successful completion of the degree requirements of both programs, students receive a Bachelor of Laws degree and a Master of Laws degree.

**Contact**

- Bachelor of Laws Program
  Law School, Tsinghua University
  Email: to be confirmed

- Master of Laws Program
  Faculty of Law, University of Toronto
  Email: gradadmissions.law@utoronto.ca
Law: Law LLM (Dual Degree: LLM / JM Tsinghua University)

Dual Degree Program: Master of Laws (University of Toronto) / Juris Master (Tsinghua University)

Admissions to this dual degree are suspended for the 2024-25 admissions cycle.

Program Description

This dual degree program is offered as part of the Master of Laws (LLM)'s coursework-only option, with or without a concentration. Students are not eligible to take the thesis option.

Students complete the LLM and Juris Master (JM) degrees in three years and one session rather than the four years it would take to attain them separately. See the LLM coursework requirements (with or without a concentration) above.

- Year 1 and 2: students register in the Tsinghua University JM program.
- Fall session of Year 3: students register in the University of Toronto LLM program.
- Winter session of Year 3: students return to the Tsinghua University JM program.
- Fall session of Year 4: students register in the University of Toronto LLM program and complete the dual degree by the end of that session.

Upon successful completion of the degree requirements of both programs, students receive a Master of Laws degree and a Juris Master degree.

Contact

Juris Master Program
Law School, Tsinghua University
Email: to be confirmed

Master of Laws Program
Faculty of Law, University of Toronto
Email: gradadmissions.law@utoronto.ca

Law: Law MSL

Master of Studies in Law

Program Description

The Master of Studies in Law (MSL) program is designed for scholars with no prior training in law who wish to acquire a legal education and knowledge of law in order to add a legal dimension to scholarship in their own discipline.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law's additional admission requirements stated below.
- Applicants must have completed at least a master's degree, and preferably a doctorate, from a recognized university with a demonstrated high level of scholarship in a discipline related to law. Applicants must have a least a B+ average in their final year of study. Preference will be given to applicants who have maintained this average throughout their studies.
- Applicants whose primary language is not English and who obtained their admitting degree (Bachelor of Laws, Juris Doctor, or equivalent) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests: Students complete the two LLM degrees in two years and one session rather than the three years it would take to attain them separately. See the LLM coursework requirements (with or without a concentration) above.

- Year 1: students register in the Tsinghua University LLM program.
- Fall session of Year 2: students register in the University of Toronto LLM program.
- Winter session of Year 2: students return to the Tsinghua University LLM program.
- Fall session of Year 3: students register in the University of Toronto LLM program and complete the dual degree program by the end of that session.

Upon successful completion of the degree requirements of both programs, students receive the University of Toronto and Tsinghua University Master of Laws degree.

Contact

Master of Laws Program
Law School, Tsinghua University
Email: to be confirmed

Master of Laws Program
Faculty of Law, University of Toronto
Email: gradadmissions.law@utoronto.ca

Law: Law MSL

Master of Studies in Law

Program Description

The Master of Studies in Law (MSL) program is designed for scholars with no prior training in law who wish to acquire a legal education and knowledge of law in order to add a legal dimension to scholarship in their own discipline.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law's additional admission requirements stated below.
- Applicants must have completed at least a master's degree, and preferably a doctorate, from a recognized university with a demonstrated high level of scholarship in a discipline related to law. Applicants must have a least a B+ average in their final year of study. Preference will be given to applicants who have maintained this average throughout their studies.
- Applicants whose primary language is not English and who obtained their admitting degree (Bachelor of Laws, Juris Doctor, or equivalent) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests: Students complete the two LLM degrees in two years and one session rather than the three years it would take to attain them separately. See the LLM coursework requirements (with or without a concentration) above.

- Year 1: students register in the Tsinghua University LLM program.
- Fall session of Year 2: students register in the University of Toronto LLM program.
- Winter session of Year 2: students return to the Tsinghua University LLM program.
- Fall session of Year 3: students register in the University of Toronto LLM program and complete the dual degree program by the end of that session.

Upon successful completion of the degree requirements of both programs, students receive the University of Toronto and Tsinghua University Master of Laws degree.

Contact

Master of Laws Program
Law School, Tsinghua University
Email: to be confirmed

Master of Laws Program
Faculty of Law, University of Toronto
Email: gradadmissions.law@utoronto.ca
The Doctor of Juridical Science (SJD) is a thesis degree program for outstanding law students seeking to pursue careers in teaching, policy, and research. Students receive a guaranteed funding package for three years. Inquiries should be directed to the Graduate Program Coordinator, Graduate Program, Faculty of Law at the address above.

Applicants may enter the SJD program via one of two routes: 1) following completion of an appropriate Bachelor of Laws or Juris Doctor degree and a Master of Laws; or 2) direct entry following completion of an appropriate Bachelor of Laws or Juris Doctor degree.

SJD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law's additional admission requirements stated below.
- Applicants must have obtained a Bachelor of Laws or Juris Doctor degree and a Master of Laws, or the equivalent of each degree, from a recognized university. Applicants must have a minimum B+ average in their Master of Laws. Preference will be given to applicants who maintain this average throughout their legal studies.
- Applicants whose primary language is not English and who obtained their admitting degree (Bachelor of Laws, Juris Doctor, or equivalent) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests:
  - The Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - Paper-based TOEFL: minimum overall score of 600, and 5 on the Test of Written English (TWE)
    - Internet-based TOEFL: minimum overall score of 100/120, and 24/30 on each section.
  - IELTS, Academic module: overall score of 7.5 with at least 7.0 in each component.
  - The University of Toronto Academic English preparation course: overall grade of A in Level 60.
  - Canadian Academic English Language (CAEL) Online: overall score of 70 with at least 70 in each component.
  - Cambridge English Qualifications: overall score of 191 with at least 185 on each section.
- No conditional offers of admission will be given based on successful completion of an English language test.

Program Requirements

- MSL students must pursue a course of studies approved by the Faculty.
  - The course of studies will comprise at least 28 credit hours (7.0 full-course equivalents [FCEs]), and not more than 32 credit hours (equivalent to 8.0 FCEs), and will include at least three of the following subjects: contracts, torts, property, criminal law, constitutional law, and civil procedure.
  - Students must complete a research project of an interdisciplinary nature during their studies at the Faculty of Law. The project must be completed in the context of one of the courses that students are completing for credit.
  - A mandatory graduate seminar: LAW1000H Alternative Approaches to Legal Scholarship (3 credits, or 0.75 FCE).
  - In no circumstance will courses taken in the MSL program be accredited for the Juris Doctor (JD) program.
- Residence. Full-time students must be in attendance for at least two academic sessions (eight months, September to April).

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Law: Law SJD

Doctor of Juridical Science

Program Description

The Doctor of Juridical Science (SJD) is a thesis degree program for outstanding law students seeking to pursue careers in teaching, policy, and research. Students receive a guaranteed funding package for three years. Inquiries should be directed to the Graduate Program Coordinator, Graduate Program, Faculty of Law at the address above.
The research undertaken by the student either culminates in a written exam, based on the reading list, or a research project, which is either a draft of a chapter of the thesis or an overview of the general argument. Both paths lead to an oral exam based on the written work and the reading list (the "area exam"). Unless approved by the Associate Dean of Graduate of Graduate Studies, a student must satisfy the area requirement by the end of Year 1 of registration.

- **Research and writing.** A student will not be allowed to continue in the doctoral program, where, in the opinion of the Area Committee, the student is not capable of demonstrating the capacity for independent legal research and writing at an advanced level, including through the satisfaction of the area exam.

- **Year 2 presentation.** At the end of Year 2 of registration, students must present an abstract of their work in progress or a draft chapter to an audience of their peers and interested faculty. The purpose of the meeting is to provide the student with a forum to collect feedback from a broad audience.

- **Annual meetings.** Students must meet with their entire supervisory committee at least once a year.

- **Thesis.** Following completion of the requirements above, a thesis must be prepared which, in the opinion of the Faculty of Law, constitutes a distinct contribution to legal research or scholarship, and the student must pass a Doctoral Final Oral Examination based on the thesis.
  - The thesis must be completed within five years from the date of enrolment in the program.
  - No candidate will be recommended for the degree until the thesis has been approved by the Faculty of Law and is presented in publishable form, as described in the PhD regulations in this calendar.

- **Residence.** Students must be in full-time attendance for at least two academic sessions (eight months):
  - September to April for those starting the program in September; or
  - January to April and September to December for those starting the program in January.

### Program Length

- 3 years

### Time Limit

- 5 years

### SJD Program (Direct-Entry)

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law's additional admission requirements stated below.

- Applicants must have obtained a Bachelor of Laws or Juris Doctor degree, or the equivalent of a law degree, from a recognized university. A minimum A– average is required in the final year of their legal studies. Preference will be given to applicants who maintain this average throughout their legal studies, i.e., during the course of their entire law degree.

- The Associate Dean, Graduate Studies at the Faculty of Law has the discretion to permit direct entry into the SJD following completion of the Bachelor of Laws or Juris Doctor degree where the Graduate Admissions Committee is satisfied that the applicant demonstrates excellent potential for independent legal research and writing at an advanced level.

- Applicants whose primary language is not English and who obtained their admitting degree (Bachelor of Laws, Juris Doctor, or equivalent) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests:
  - The Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - Paper-based TOEFL: minimum overall score of 600, and 5 on the Test of Written English (TWE)
    - Internet-based TOEFL: minimum overall score of 100/120, and 24/30 on each section.
  - IELTS, Academic module: overall score of 7.5 with at least 7.0 in each component.
  - The University of Toronto Academic English preparation course: overall grade of A in Level 60.
  - Canadian Academic English Language (CAEL) Online: overall score of 70 with at least 70 in each component.
  - Cambridge English Qualifications: overall score of 191 with at least 185 on each section.

- No conditional offers of admission will be given based on successful completion of an English language test.

### Program Requirements

- **Coursework.** Students must complete at least 8 credit hours (2.0 full-course equivalents [FCEs]) including the mandatory graduate seminar: LAW1000H Alternative Approaches to Legal Scholarship (3 credits, or 0.75 FCE).
  - All coursework shall be subject to the approval of the Associate Dean, Graduate Studies at the Faculty of Law.

- **Area requirement.** Before being allowed to proceed with formal research on a thesis topic, a student must demonstrate competence in a broader area within which the topic falls. The student's supervisory committee (established by the student and approved by the Associate Dean of Graduate Studies at the Faculty of Law) assists in framing that area and compiling an appropriate plan for carrying out the research. The research undertaken by the student either culminates in a written exam, based on the reading list, or a research project, which is either a draft of a chapter of the thesis or an overview of the general argument. Both paths lead to an oral exam based on the written work and the reading list (the "area exam"). Unless approved by the Associate Dean of Graduate Studies, a student must satisfy the area requirement by the end of Year 1 of registration.

- **Research and writing.** A student will not be allowed to continue in the doctoral program, where, in the opinion of the Area Committee, the student is not capable of demonstrating the capacity for independent legal research and writing at an advanced level, including through the satisfaction of the area exam.

- **Year 2 presentation.** At the end of Year 2 of registration, students must present an abstract of their work in progress or a draft chapter to an audience of their peers and interested faculty. The purpose of the meeting is to provide the student with a forum to collect feedback from a broad audience.
• **Annual meetings.** Students must meet with their entire supervisory committee at least once a year.

• **Thesis.** Following completion of the area requirements, a thesis must be prepared which, in the opinion of the Faculty of Law, constitutes a distinct contribution to legal research or scholarship, and the student must pass a Doctoral Final Oral Examination based on the thesis.
  - The thesis must be completed within six years from the date of enrolment in the program.
  - No candidate will be recommended for the degree until the thesis has been approved by the Faculty of Law and is presented in publishable form, as described in the PhD regulations in this calendar.

• **Residence.** Students must be in full-time attendance for at least two academic sessions (eight months):
  - September to April for those starting the program in September;
  - January to April and September to December for those starting the program in January.

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**Program Length**

5 years

**Time Limit**

6 years

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**Law: Law LLM, MSL, SJD Courses**

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<td>LAW8000Y</td>
<td>Thesis</td>
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<tr>
<td>LAW8001H</td>
<td>Directed Research Program (Graduate Students Only)</td>
</tr>
<tr>
<td>CHL5704H</td>
<td>International Human Rights Law and Global Health: The Right to Health in Theory and Practice</td>
</tr>
<tr>
<td>HAD5765H</td>
<td>Case Studies in Health Policy</td>
</tr>
<tr>
<td>HAD5775H</td>
<td>Competition, Cooperation, and Strategy in Health Care</td>
</tr>
<tr>
<td>HAD6762H</td>
<td>Organization and Management Studies Comprehensive Course</td>
</tr>
<tr>
<td>JDM3619H</td>
<td>Digital Media Distribution (Credit/No Credit)</td>
</tr>
</tbody>
</table>
Law: Global Professional Law GPLLM

Global Professional Master of Laws

Program Description

The Global Professional Master of Laws (GPLLM) program is an executive graduate degree in law designed for (1) executives who wish to become more conversant in the substance and methodology of law; and (2) internationally trained lawyers who wish to become licensed to practise law in Canada. Courses are offered on alternating weekends: Friday evenings and all-day Saturday.

The program may be completed in one year (three sessions with a F/W/S registration sequence) or through an extended full-time program requirements over two years (six sessions with a F/W/S/F/W/S registration sequence).

The GPLLM offers the following concentrations:

- Business Law
- Canadian Law in a Global Context
- Innovation, Law and Technology

Law: Global Professional Law GPLLM (Concentration: Business Law)

Concentration: Business Law

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law's additional admission requirements stated below.
- Applicants must have completed a Juris Doctor (JD), Bachelor of Laws (LLB), or a bachelor's degree (in law or another discipline) from a recognized university, with a minimum mid-B average or equivalent in their final year of study.
- Applicants must demonstrate a minimum of five years of full-time work experience.
- Applicants whose primary language is not English and who obtained their admitting degree (bachelor's degree) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests:
  - TOEFL with the following minimum scores:
    - Paper-based TOEFL: minimum overall score of 600, and 5 on the Test of Written English (TWE)
    - Internet-based TOEFL: minimum overall score of 100/120, and 24/30 on each section.
  - IELTS, Academic module: overall score of 7.5 with at least 7.0 in each component.
- The Certificate of Proficiency in English (COPE): overall score of 86 with at least 22 in both the listening and reading components, 40 in the writing component, and 7 in the speaking component (Test of Oral Proficiency).
- The University of Toronto Academic English preparation course: overall grade of A in Level 60.
- Canadian Academic English Language (CAEL) Online: overall score of 70 with at least 70 in each component.
- Cambridge English Qualifications: overall score of 191 with at least 185 on each section.
- No conditional offers of admission will be given based on successful completion of an English-language test.

Program Requirements

- Coursework: 30 credits (7.5 full-course equivalents [FCEs]), as follows:
  - One required 3-credit course (equivalent to 0.75 FCE) as follows:
    - LAW4001H Law and Business in a Global Economy
  - 12 credits (equivalent to 3.0 FCEs) consisting of four courses within this concentration worth 3 credits each (0.75 FCE total) from this list:
    - LAW4002H Comparative Corporate Governance
    - LAW4003H Securities Regulation and Corporate Finance
    - LAW4004H Mergers and Acquisitions
    - LAW4005H Canadian and Cross-Border Issues in Corporate Tax
    - LAW4006H International Dispute Resolution
    - LAW4011H Law and Policy of Public Private Partnerships
    - LAW4012H Intellectual Property Law
    - LAW4013H Economic and Social Regulation and Competition Law
    - LAW4014H International Insolvency Law
    - LAW4015H Organization of Transactional Legal Practice
    - LAW4018H Foundations of Legal Theory
    - LAW4019H Anti-Corruption Law: International, Domestic, and Practical Perspectives
    - LAW4022H Contract Law
    - LAW4032H Intellectual Property and Strategy
    - LAW4036H Applied Contract Law
    - LAW4053H Law and Regulation of Banks and Financial Institutions
    - LAW4057H Cannabis Law and Regulation
    - LAW4058H Competition Law
    - LAW4059H Digital Trade
    - LAW4061H Issues in Tax Law and Policy
    - LAW4062H Bankruptcy and Insolvency Law
  - 15 credits (equivalent to 3.75 FCEs) consisting of five courses worth 3 credits each (0.75 FCE total) from any concentration. Not all courses will necessarily be available every year. The program reserves the discretion to decline student requests to complete certain electives based on course enrolment or otherwise.

Full-Time Program Length

3 sessions full-time (typical registration sequence: F/W/S)
Program Requirements

- **Coursework:** 30 credits (7.5 full-course equivalents [FCEs]), as follows:
  - One required 3-credit course (equivalent to 0.75 FCE) as follows:
    - LAW4010H Foundations of Canadian Law
  - 12 credits (equivalent to 3.0 FCEs) consisting of four seminar courses within this concentration worth 3 credits each (0.75 FCE total) from this list:
    - LAW4007H Canadian Administrative Law
    - LAW4008H Canadian Constitutional Law
    - LAW4009H Canadian Criminal Law
    - LAW4017H Professional Responsibility
    - LAW4020H Property Law
    - LAW4021H Tort Law
    - LAW4022H Contract Law
    - LAW4023H Business Organizations
    - LAW4024H Applied Legal Research and Writing
    - LAW4051H Evidence Law
  - 15 credits (3.75 FCEs) consisting of five courses worth 3 credits each (0.75 FCE) from any concentration. Not all elective courses will necessarily be available every year. The program reserves the discretion to decline student requests to complete certain electives based on course enrolment or otherwise.

Note: Canadian Law in a Global Context students without the minimum five years of full-time work experience may only select electives from within their concentration.

Full-Time Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Extended Full-Time Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Law: Global Professional Law GPLLM
(Concentration: Innovation, Law and Technology)

Concentration: Innovation, Law and Technology

Minimum Admission Requirements
Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Law’s additional admission requirements stated below.

- Applicants must have completed a bachelor’s degree (in law or another discipline) from a recognized university, with a minimum mid-B average or equivalent in their final year of study.
- Applicants must demonstrate a minimum of five years of full-time work experience.
- Applicants should demonstrate an interest in technology and entrepreneurship in their application materials.
- Applicants whose primary language is not English and who obtained their admitting degree (bachelor’s degree) from a university where the language of instruction and examination was not English must show evidence of English proficiency by submitting English-language test scores. Several English-language testing services are acceptable. The Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are the most common tests:
  - TOEFL with the following minimum scores:
    - Paper-based TOEFL: minimum overall score of 600, and 5 on the Test of Written English (TWE)
    - Internet-based TOEFL: minimum overall score of 100/120, and 24/30 on each section.
  - IELTS, Academic module: overall score of 7.5 with at least 7.0 in each component.
  - The Certificate of Proficiency in English (COPE): overall score of 86 with at least 22 in both the listening and reading components, 40 in the writing component, and 7 in the speaking component (Test of Oral Proficiency).
  - The University of Toronto Academic English preparation course: overall grade of A in Level 60.
  - Canadian Academic English Language (CAEL) Online: overall score of 70 with at least 70 in each component.
  - Cambridge English Qualifications: overall score of 191 with at least 185 on each section.
- No conditional offers of admission will be given based on successful completion of an English-language test.

**Program Requirements**

- **Coursework:** 30 credits (7.5 full-course equivalents [FCEs]), as follows:
  - One required 3-credit course (equivalent to 0.75 FCE) as follows:
    - LAW4026H *Introduction to Law and Technology*
  - 12 credits (equivalent to 3.0 FCEs) consisting of four courses within this concentration worth 3 credits each (0.75 FCE total) from this list:
    - LAW4012H *Intellectual Property Law*
    - LAW4027H *Legal Technology and Informatics*
    - LAW4028H *Blockchain, Digital Assets, and the Law*
    - LAW4030H *Financing Technological Innovation*
    - LAW4031H *Cybersecurity and Data Protection in a Global Information Economy*
    - LAW4032H *Intellectual Property and Strategy*
    - LAW4033H *Design Thinking*
    - LAW4034H *Launching Technology Ventures*
    - LAW4035H *The Internet of Things*
    - LAW4036H *Applied Contract Law*
    - LAW4046H *Privacy and Data Governance*
    - LAW4047H *The Legal Challenges of Digital Environments*

- LAW4052H *Law of Software Development and Commercialization*
- LAW4055H *Disruptive Innovations and Legal Infrastructure*
- LAW4063H *Regulation of Artificial Intelligence: A Legal and Practical Study*

- 15 credits (equivalent to 3.75 FCEs) consisting of five courses worth 3 credits each (0.75 FCE total) from any concentration. Not all elective courses will necessarily be available every year. The program reserves the discretion to decline student requests to complete certain electives based on course enrolment or otherwise.

### Full-Time Program Length

3 sessions full-time (typical registration sequence: F/W/S)

### Extended Full-Time Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

### Time Limit

3 years full-time

**Law: Global Professional Law GPLLM Courses**

All courses are offered in modules, each worth 0.75 full-course equivalent (FCE). A module will be approximately four months in length. Courses will be offered during the evening and on the weekend. A large portion of the learning for the modules will take place outside of class through carefully designed reading, assignments, projects, and group study.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LAW4001H</td>
<td>Law and Business in a Global Economy</td>
</tr>
<tr>
<td>LAW4002H</td>
<td>Comparative Corporate Governance</td>
</tr>
<tr>
<td>LAW4003H</td>
<td>Securities Regulation and Corporate Finance</td>
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<td>LAW4004H</td>
<td>Mergers and Acquisitions</td>
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<td>LAW4005H</td>
<td>Canadian and Cross-Border Issues in Corporate Tax</td>
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<td>LAW4006H</td>
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<td>LAW4010H</td>
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<td>LAW4011H</td>
<td>Law and Policy of Public Private Partnerships</td>
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<td>LAW4012H</td>
<td>Intellectual Property Law</td>
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<td>LAW4013H</td>
<td>Economic and Social Regulation and Competition Law</td>
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<td>LAW4014H</td>
<td>International Insolvency Law</td>
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<td>LAW4015H</td>
<td>Organization of Transactional Legal Practice</td>
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<td>LAW4016H</td>
<td>Corporate Social Responsibility, Ethics, and the Law</td>
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<td>LAW4017H</td>
<td>Professional Responsibility</td>
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<td>Foundations of Legal Theory</td>
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<tr>
<td>LAW4019H</td>
<td>Anti-Corruption Law: International, Domestic, and Practical Perspectives</td>
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<td>LAW4037H</td>
<td>Procedural Fairness in Decision Making</td>
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<td>LAW4038H</td>
<td>Dispute Resolution and Negotiations</td>
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<td>LAW4039H</td>
<td>Law of the Workplace</td>
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<td>LAW4040H</td>
<td>Harassment, Discrimination, and the Duty to Accommodate</td>
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<td>LAW4041H</td>
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<td>LAW4042H</td>
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<td>LAW4043H</td>
<td>Privacy and Expression in the Digital Age</td>
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<td>LAW4044H</td>
<td>Education Law</td>
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<td>LAW4045H</td>
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<td>LAW4046H</td>
<td>Privacy and Data Governance</td>
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<td>LAW4047H</td>
<td>The Legal Challenges of Digital Environments</td>
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<td>LAW4049H</td>
<td>Privacy and Freedom of Information</td>
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<td>LAW4050H</td>
<td>Perspectives on Leadership and the Law</td>
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<td>Law and Regulation of Banks and Financial Institutions</td>
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<td>LAW4054H</td>
<td>Management and Resolution of Legal Disputes</td>
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<td>Disruptive Innovations and Legal Infrastructure</td>
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<td>LAW4056H</td>
<td>Crisis Management and Leadership</td>
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<td>LAW4057H</td>
<td>Cannabis Law and Regulation</td>
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<td>Regulation of Artificial Intelligence: A Legal and Practical Study</td>
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<td>LAW4064H</td>
<td>Negotiation (Credit/No Credit)</td>
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<td>The Emergence of LegalTech</td>
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<td>Trial Advocacy (Credit/No Credit)</td>
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<tr>
<td>LAW4067H</td>
<td>Employment Law</td>
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</tbody>
</table>
Leadership, Higher and Adult Education

LHAE: Introduction

Faculty Affiliation

Ontario Institute for Studies in Education (OISE)

Degree Programs

Adult Education and Community Development

MA, MEd, and PhD

Educational Leadership and Policy

MA, MEd, EdD, and PhD

- Fields:
  - Educational Leadership and Policy;
  - International Educational Leadership and Policy (EdD only)

Higher Education

MA

- Field:
  - Higher Education

MEd

- Fields:
  - Education in the Professions;
  - Higher Education;
  - Higher Education Leadership;
  - Student Development and Student Services in Higher Education

EdD

- Field:
  - Higher Education

PhD

- Field:
  - Higher Education

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Community Development (admissions have been administratively suspended)
  - Adult Education and Community Development, MA, MEd

- Comparative, International and Development Education
  - Adult Education and Community Development, MA, MEd, PhD
  - Educational Leadership and Policy, MA, MEd, EdD, PhD
  - Higher Education, MA, MEd, EdD, PhD

- Educational Policy (admissions have been administratively suspended)
  - Adult Education and Community Development, MA, MEd, PhD
  - Educational Leadership and Policy, MA, MEd, EdD, PhD
  - Higher Education, MA, MEd, EdD, PhD

- Engineering Education
  - Higher Education, MA, MEd, PhD

- Environmental Studies
  - Adult Education and Community Development, MA, MEd, PhD

- Environment and Health
  - Adult Education and Community Development, MA, MEd, PhD

- Ethnic, Immigration and Pluralism Studies
  - Educational Leadership and Policy, MA, MEd, EdD, PhD

- Sexual Diversity Studies
  - Adult Education and Community Development, MA, MEd, PhD
  - Educational Leadership and Policy, MA, MEd, EdD, PhD
  - Higher Education, MA, MEd, EdD, PhD

- Women and Gender Studies
  - Adult Education and Community Development, MA, MEd, PhD
  - Educational Leadership and Policy, MA, MEd, EdD, PhD
  - Higher Education, MA, MEd, EdD, PhD

- Workplace Learning and Social Change
  - Adult Education and Community Development, MA, MEd, PhD

Overview

Scholars in the Department of Leadership, Higher and Adult Education (LHAE) are engaged in a range of theoretical and practical areas: primary, secondary, and higher education leadership and administration; adult education; policy and change; social diversity; and community engagement. LHAE develops and organizes collaborative specializations in support of particular research areas of interest including those in policy, international development education, and workplace learning. These collaborative specializations can be taken in conjunction with most OISE graduate programs.

Contact and Address

Admissions

Initial inquiries regarding admission to graduate studies in the Department of Leadership, Higher and Adult Education should be made directly to:

Web: [www.oise.utoronto.ca/registrar-students](http://www.oise.utoronto.ca/registrar-students)
Email: admissions.oise@utoronto.ca
Tel: (416) 978-4300
Fax: (416) 323-9964

Registrar’s Office and Student Experience
Ontario Institute for Studies in Education (OISE)
LHAE: Graduate Faculty

Full Members

Bakan, Abigail - BA, MA, PhD
Bascia, Nina - PhD
Bisaillon, Laura - BA, MA, PhD
Boler, Megan - BA, PhD
Campbell, Carol - BA, PhD
Childs, Ruth - BS, MA, PhD
Chmielewski, Anna Katyn - BA, MA, PhD
Davies, Scott - BA, MA, PhD
Dhuey, Elizabeth Ann - BA, MEc, PhD
Flessa, Joseph - BA, MA, PhD
Garrett-Walker, Whitnee - BA, MAT, MA
Georgis, Dina - PhD
Hayhoe, Ruth - BA, MA, PhD
Janzen, Katharine - BS, BN, MEd, EdD
Jones, Glen - BA, BEd, MEd, PhD
Kuk, Hye-Su - BA, MA, PhD
Lopez, Ann - BA, BEd, MEd, PhD
Magnusson, Jamie-Lynn - BA, MA, PhD
McCready, Lance - BA, MA, PhD
Menashy, Francine - BA, BEd, MEd, PhD
Mirchandani, Kiran - BA, MPH, PhD
Mojab, Shahrzad - BA, MEd, EdD
Mundy, Karen - BA, MA, PhD
Sá, Creso - BA, MA, DPhil (Chair and Graduate Chair)
Sawchuk, Peter - BSc, BEd, MA, PhD
Vieta, Marcelo A. - BA, MA, PhD
Waterman, Stephanie - BA, MA, PhD
Wemigwans, Jennifer - BA, MFA, DPhil
Wheelahan, Leesa - BA, MA, PhD
Zuker, Marvin - BA, LLB, MEd

Members Emeriti

Anderson, Stephen - BA, MA, PhD
Gaskell, Jane - BA, EdD
Joshee, Reva - BLitt, MA, PhD
Leithwood, Kenneth - BA, BPHE, MPE, PhD
Muzzin, Linda - BA, MA, MPsy, PhD
Ryan, James - BEd, MEd, PhD
Stiegelbauer, Suzanne - BS, MA, MA, PhD

Associate Members

Blaauw-Hara, Mark - BA, MA, PhD
Corral, Daniel - AB, MS, MSc
Desai, Chandni - PhD
Drinkwater, Mary - BA, BEd, MPA, PhD
Entigar, Katherine - BA, MA, PhD
Evans-Tokaryk, Tyler - PhD
Gingras, Jacqui - PhD
Karram Stephenson, Grace L. - PhD
Knight, Jane - PhD
Lavigne, Eric - BE, MEd, PhD
Malik, Sofya - PhD
Manion, Caroline - BA, MA, PhD
Mayes-Tang, Sarah - BSc, MS, PhD
Moodie, Gavin - PhD
Parzen, Maurine - BNSc, MS, PhD
Rawle, Fiona - PhD
Scully-Stewart, Coleen - BA, MEd, PhD
Sharratt, Lyn - BA, MEd, EdD
Stickel, Micah - BAssc, MAssc, PhD
Sumner, Jennifer - BA, PhD
Tuters, Stephanie Diane - BA, MEd, PhD
Williams, Andrea - MA, PhD

LHAE: Adult Education and Community Development MA

Master of Arts

Program Description

The MA is a research-based thesis degree program which can be taken on a full-time or part-time basis. The MA program focuses on learning that happens individually and collectively among adults in communities, workplaces, social movements, the street, and the virtual world — any place where people come together to create social change. The program serves individuals seeking to develop skills for education, community, and organizational roles in a wide range of settings in public, private, and voluntary sectors. Graduates work with newcomers, youth, women’s groups, LGBTQ agencies, organized labour, racialized people, and disenfranchised communities in positions that involve community engagement and education, policy development, leadership, mentorship, and organizational development. The department welcomes applicants with diverse but relevant backgrounds.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- An appropriate bachelor's degree in a relevant discipline or professional program from a recognized university, with a grade equivalent to a University of Toronto mid-B or better in the final year.
Program Requirements

• **Coursework.** Students must complete 4.0 full-course equivalents (FCEs) as follows:
  - Either LHA1100H *Introduction to Adult Education* (0.5 FCE) or LHA1102H *Introduction to Community Development* (0.5 FCE), to be taken at the beginning of the program.
  - LHA1183H *Master's Thesis Seminar* (0.5 FCE).
  - At least one research methods course (0.5 FCE).
  - At least 2.0 FCEs must be from the Adult Education and Community Development program. Additional courses may be required of some students.
• A **thesis** based on original research, which may lay the groundwork for doctoral research.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
10 sessions part-time

Time Limit

3 years full-time;
6 years part-time

LHAE: Adult Education and Community Development MEd

Master of Education

Program Description

The MEd is a non-thesis, course-based professional degree program which can be taken on a full-time or part-time basis. The MEd program focuses on learning that happens individually and collectively among adults in communities, workplaces, social movements, the street, and the virtual world — any place where people come together to create social change. It serves individuals seeking to develop skills for education, community, and organizational development roles in a wide range of settings in public, private, and voluntary sectors. Graduates work with newcomers, youth, women’s groups, LGBTQ agencies, organized labour, racialized people, and disenfranchised communities in positions that involve community engagement and education, policy development, leadership, mentorship, and organizational development. The department welcomes applicants with diverse but relevant backgrounds.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
• An appropriate bachelor’s degree in a relevant discipline or professional program from a recognized university, with a grade equivalent to a University of Toronto mid-B or better in the final year.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education's additional admission requirements stated below.
- An appropriate master's degree from a recognized university in a relevant discipline or professional program, with a minimum standing equivalent to a University of Toronto B+
- In addition to responses to the Faculty questions in the online admissions application, a sample of written work is required, which will help the admissions committee to assess an applicant's readiness to succeed in rigorous coursework and to conduct systematic research for the PhD. Applicants typically submit a master's-level Major Research Paper or thesis as their sample of written work. Applicants who do not have a Major Research Paper or thesis must provide a sample of written work that showcases their ability to write clearly and analytically about issues related to adult education and community development. The admissions committee will look for evidence that applicants understand how to craft an academic document, define a research problem, devise an appropriate focus for an inquiry, assemble and analyze evidence and/or academic literatures, and develop conclusions in a rigorous manner. Examples include a master's-level course paper or professional publication.

Program Requirements

- **Coursework.** Students must complete 3.0 full-course equivalents (FCEs) as follows:
  - LHA3102H+ Doctoral Thesis Seminar (0.5 FCE), recommended to be taken in the first session of the program.
  - At least 1.5 FCEs must be from the Adult Education and Community Development program. Students with little background in the area of Adult Education and Community Development may be required to complete an additional 0.5 FCE providing such background.
  - At least one research methods course (0.5 FCE).
- **Comprehensive requirement.** Normally, a major paper between 7,000 and 12,000 words in length (including tables, figures, and references), which consists of a comprehensive discussion of one or more literatures and/or debates of significance to Adult Education and Community Development.
- **Thesis.** Students must register continuously and pay the full-time fee until all degree requirements have been fulfilled.
- Students cannot transfer between the full-time and flexible-time PhD options.
- Students cannot transfer between the EdD and PhD programs.

Program Length

4 years

Time Limit

6 years

**Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.**

PhD Program (Flexible-Time Option)

Applicants to the flexible-time option should be active professionals who demonstrate connections between their professional work and their proposed course program, and/or between their professional work and their proposed research. Capacity to secure blocks of time to enable concentrated study is required.

Program Length

6 years
Time Limit
8 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

LHAE: Adult Education and Community Development MA, MEd, PhD Courses

Not all courses are offered every year. Please review the course schedule on the Registrar’s Office and Student Experience website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHA1100H</td>
<td>Introduction to Adult Education</td>
</tr>
<tr>
<td>LHA1101H</td>
<td>Program Planning in Adult Education</td>
</tr>
<tr>
<td>LHA1102H</td>
<td>Introduction to Community Development</td>
</tr>
<tr>
<td>LHA1103H</td>
<td>Introduction to Research Methods in Adult Education (RM)</td>
</tr>
<tr>
<td>LHA1105H</td>
<td>Introduction to Qualitative Research: Part I (RM)</td>
</tr>
<tr>
<td>LHA1106H</td>
<td>Introduction to Qualitative Research: Part II (RM)</td>
</tr>
<tr>
<td>LHA1107H</td>
<td>Developing and Leading High Performing Teams: Theory and Practice</td>
</tr>
<tr>
<td>LHA1108H</td>
<td>Adult Learning</td>
</tr>
<tr>
<td>LHA1109H</td>
<td>Creative Empowerment Work with the Disenfranchised</td>
</tr>
<tr>
<td>LHA1110H</td>
<td>Approaches to Teaching Adults</td>
</tr>
<tr>
<td>LHA1111H</td>
<td>Working with Survivors of Trauma</td>
</tr>
<tr>
<td>LHA1113H</td>
<td>Gender and Race at Work</td>
</tr>
<tr>
<td>LHA1114H</td>
<td>Commons, Community and Social Justice</td>
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<tr>
<td>LHA1115H</td>
<td>Learning for the Global Economy</td>
</tr>
<tr>
<td>LHA1119H</td>
<td>Creating a Learning Organization</td>
</tr>
<tr>
<td>LHA1120H</td>
<td>Professions, Learning, and Work (Exclusion: LHA5105H, LHA5106H)</td>
</tr>
<tr>
<td>LHA1122H</td>
<td>Practicum in Adult Education and Community Development (Credit/No Credit)</td>
</tr>
<tr>
<td>LHA1142H</td>
<td>Young Adulthood in Crisis: Learning, Transitions, and Activism</td>
</tr>
<tr>
<td>LHA1143H</td>
<td>Introduction to Feminist Perspectives on Society and Education</td>
</tr>
<tr>
<td>LHA1144H</td>
<td>Queer Interventions: Tools for Community Organizing</td>
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</tbody>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LHA1145H</td>
<td>Participatory Research in the Community and the Workplace (RM)</td>
</tr>
<tr>
<td>LHA1146H</td>
<td>Women, War, and Learning</td>
</tr>
<tr>
<td>LHA1147H</td>
<td>Women, Migration, and Work</td>
</tr>
<tr>
<td>LHA1148H</td>
<td>Introduction to Workplace, Organizational, and Economic Democracy</td>
</tr>
<tr>
<td>LHA1149H</td>
<td>Precarity and Dispossession: Urban Poverty and Rebel Cities</td>
</tr>
<tr>
<td>LHA1150H</td>
<td>Critical Perspectives on Organizational Change</td>
</tr>
<tr>
<td>LHA1152H</td>
<td>Individual Reading and Research in Adult Education: Master’s Level</td>
</tr>
<tr>
<td>LHA1180H</td>
<td>Indigenous Worldviews: Implications for Education</td>
</tr>
<tr>
<td>LHA1181H</td>
<td>Embodied Learning and Alternative Approaches to Community Wellness</td>
</tr>
<tr>
<td>LHA1182H</td>
<td>Nonprofits, Co-operatives, and the Social Economy: An Overview</td>
</tr>
<tr>
<td>LHA1183H*</td>
<td>Master’s Research Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>LHA1184H</td>
<td>Indigenous Knowledge: Implications for Education</td>
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<tr>
<td>LHA1190H</td>
<td>Community Healing and Peacebuilding</td>
</tr>
<tr>
<td>LHA1193H</td>
<td>Adult Education for Sustainability</td>
</tr>
<tr>
<td>LHA1194H</td>
<td>Cyberliteracy and Adult Education</td>
</tr>
<tr>
<td>LHA1195H</td>
<td>Technology @Work: The Internet in Workplace Learning and Change</td>
</tr>
<tr>
<td>LHA1196H</td>
<td>Walking Together, Talking Together: The Praxis of Reconciliation</td>
</tr>
<tr>
<td>LHA1197H</td>
<td>The Pedagogy of Food</td>
</tr>
<tr>
<td>LHA3102H*</td>
<td>Doctoral Thesis Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>LHA3152H</td>
<td>Individual Reading and Research in Adult Education: Doctoral Level</td>
</tr>
<tr>
<td>LHA3182H</td>
<td>Participatory Democracy, Activism, and Citizenship Learning</td>
</tr>
<tr>
<td>LHA3183H</td>
<td>Introduction to Institutional Ethnography (RM)</td>
</tr>
<tr>
<td>LHA3184H</td>
<td>Indigenous Research Methodologies (RM)</td>
</tr>
<tr>
<td>LHA5100H</td>
<td>Special Topics in Adult Education and Community Development: Master’s Level</td>
</tr>
<tr>
<td>LHA5120H</td>
<td>Special Topics in Adult Education and Community Development: Doctoral Level</td>
</tr>
<tr>
<td>LHA6100H</td>
<td>Special Topics in Adult Education and Community Development: Master’s Level</td>
</tr>
<tr>
<td>LHA6110H</td>
<td>Special Topics in Adult Education and Community Development: Doctoral Level</td>
</tr>
<tr>
<td>CIE1001H</td>
<td>Introduction to Comparative, International, and Development Education</td>
</tr>
<tr>
<td>CIE1002H</td>
<td>Practicum in Comparative, International, and Development Education</td>
</tr>
</tbody>
</table>
**CIE1006H** Transnational Perspectives on Democracy, Human Rights, and Democratic Education in an Era of Globalization

**CIE6000H** Special Topics in Comparative, International, and Development Education

**WPL1131H** Introduction to Workplace Learning and Social Change

**WPL3930H** Practitioner Communities in Workplace Learning (Credit/No Credit) (Prerequisite: WPL1131H or by permission of the instructor.)

**WPL3931H** Advanced Studies in Workplace Learning and Social Change

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

**Interprogram Courses**

The following course is accepted for credit in the Adult Education and Community Development program and will satisfy the program’s requirement. For descriptions, see the relevant programs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJE1925H</td>
<td>Indigenous Knowledge and Decolonization: Pedagogical Implications</td>
</tr>
</tbody>
</table>

**LHAE: Educational Leadership and Policy**

**MA** Master of Arts

**Program Description**

The MA program in Educational Leadership and Policy fosters the study of problems in leadership and policy with respect to educational programs, with an emphasis on elementary and secondary schools. It will best serve students who have a commitment to scholarship and research as a means of deepening their understanding of leadership action in schools or in other educational and service institutions.

The MA is available through both full-time and part-time studies. While experience in teaching and administration is not an essential prerequisite for admission, such experience provides a desirable background. The department welcomes applicants with diverse but relevant backgrounds.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.

- An appropriate bachelor’s degree from a recognized university in a relevant discipline or professional program, with a grade equivalent to a University of Toronto B+ or better in the final year.

- Two letters of reference: one academic, the other either academic or professional.

**Program Requirements**

- **Coursework.** Students must complete 4.0 full-course equivalents (FCEs) as follows:
  - LHA1003H Designing Master’s Research Proposals (0.5 FCE).
  - LHA1004H Research Literacy in Educational Leadership and Policy (0.5 FCE).
  - LHA1040H Introduction to Educational Leadership and Policy: Policy, Leadership, Change, and Diversity (0.5 FCE).
  - 0.5 FCE in research methods, to be selected in consultation with the thesis supervisor.
  - 2.0 elective FCEs, of which 0.5 must be from the Educational Leadership and Policy program courses typically have a “0” in the second digit, for example “LHA10XX” and “LHA50XX.” The following courses also count as Educational Leadership and Policy program courses: EDP3045H, EDP3145H, JOI3043H, JOI3048H, and JOI3049H. Additional courses may be required of some students.

- **Thesis,** to be developed under the guidance of a faculty member.

**Program Length**

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
10 sessions part-time

**Time Limit**

3 years full-time;
6 years part-time

**LHAE: Educational Leadership and Policy**

**MEd** Master of Education

**Program Description**

The MEd program in Educational Leadership and Policy is designed primarily for students who are interested in learning the nature and practice of leadership and policy, especially with respect to social diversity and change in elementary and secondary schools. The MEd degree can be pursued on a part-time or full-time basis. The department welcomes applicants with diverse but relevant backgrounds.

The MEd program in Educational Leadership and Policy is designed primarily for students who are interested in learning the nature and practice of leadership and policy, especially with respect to social diversity and change in elementary and secondary schools. The MEd degree can be pursued on a part-time or full-time basis. The department welcomes applicants with diverse but relevant backgrounds.
There are two MEd options available:

1. **Coursework Only Option** and
2. **Coursework Plus Major Research Paper Option**.

Students initially apply to and register in the Coursework Only Option. For registration in the Coursework Plus Major Research Paper Option, department permission is required.

The Coursework Only Option is available in two delivery models:

1. Regular MEd stream: students are accepted every year and can register on a full-time or part-time basis.
2. Online/Hybrid (part-time) Cohort-based stream: available in select years. Students move through the program as a cohort and register part-time. Applicants who are interested in the Online/Hybrid Cohort must specify their interest in this cohort in their responses to the Faculty questions in the online admissions application. However, due to limited space, admission to the MEd degree program does not guarantee membership in this cohort.

**MEd Program (Coursework Only Option [Regular Delivery])**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in a relevant discipline with a grade equivalent to a University of Toronto mid-B or better in the final year.
- Two letters of reference. Whenever possible, one should be written by an educational professional for whom the applicant has worked. The second should be by a referee who can attest to the applicant's academic ability.
- Applicants must have the equivalent of 12 months of successful, relevant, professional experience.

**Program Requirements**

- **Coursework.** Students must complete **5.0 full-course equivalents (FCEs)** as follows:
  - LHA1004H *Research Literacy in Educational Leadership and Policy* (0.5 FCE), to be taken at the beginning of the program.
  - LHA1040H *Introduction to Educational Leadership and Policy: Policy, Leadership, Change, and Diversity* (0.5 FCE), to be taken at the beginning of the program.
  - 4.0 other FCEs, of which at least 2.0 FCEs must be from the Educational Leadership and Policy program, normally at the 1000 level or 5000 special topics level. Educational Leadership and Policy program course codes typically have a "0" in the second digit, for example "LHA10XX" and "LHA50XX." The following courses also count as Educational Leadership and Policy program courses: EDP3045H, EDP3145H, JOI3043H, JOI3048H, and JOI3049H. Students may choose to focus on one of the four research areas: Policy, Leadership, Change, or Social Diversity.

**Program Length**

4 sessions full-time (typical registration sequence: F/W/S/F); 10 sessions part-time

**Time Limit**

3 years full-time; 6 years part-time

**MEd Program (Coursework Only Option [Online/Hybrid Delivery, Part-Time Only])**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in a relevant discipline with a grade equivalent to a University of Toronto mid-B or better in the final year.
- Two letters of reference. Whenever possible, one should be written by an educational professional for whom the applicant has worked. The second should be by a referee who can attest to the applicant's academic ability.
- Applicants must have the equivalent of 12 months of successful, relevant, professional experience.

**Program Requirements**

- **Coursework.** Students must complete **5.0 full-course equivalents (FCEs)** as follows:
  - LHA1004H *Research Literacy in Educational Leadership and Policy* (0.5 FCE), to be taken at the beginning of the program.
  - LHA1040H *Introduction to Educational Leadership and Policy: Policy, Leadership, Change, and Diversity* (0.5 FCE), to be taken at the beginning of the program.
  - 4.0 other FCEs, of which at least 2.0 FCEs must be from the Educational Leadership and Policy program, normally at the 1000 level or 5000 special topics level. Educational Leadership and Policy program course codes typically have a "0" in the second digit, for example "LHA10XX" and "LHA50XX." The following courses also count as Educational Leadership and Policy program courses: EDP3045H, EDP3145H, JOI3043H, JOI3048H, and JOI3049H. Students may choose to focus on one of the four research areas: Policy, Leadership, Change, or Social Diversity.

**Program Length**

10 sessions part-time

**Time Limit**

6 years part-time
**MEd Program (Coursework Plus Major Research Paper Option)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university in a relevant discipline with a grade equivalent to a University of Toronto mid-B or better in the final year.
- Two letters of reference. Whenever possible, one should be written by an educational professional for whom the applicant has worked. The second should be by a referee who can attest to the applicant's academic ability.
- Applicants must have the equivalent of 12 months of successful, relevant, professional experience.

**Program Requirements**

- **Coursework.** Students must complete 4.0 full-course equivalents (FCEs) as follows:
  - LHA1003H Designing Master's Research Proposals (0.5 FCE). Part-time students are recommended to take this course towards the end of their program; full-time students are recommended to take it in Year 1.
  - LHA1040H Introduction to Educational Leadership and Policy: Policy, Leadership, Change, and Diversity (0.5 FCE), to be taken at the beginning of the program.
  - 3.0 other FCEs, of which at least 1.5 FCEs must be from the Educational Leadership and Policy program, normally at the 1000 level or 5000 special topics level. Educational Leadership and Policy program course codes typically have a "0" in the second digit, for example "LHA10XX" and "LHA50XX." The following courses also count as Educational Leadership and Policy program courses: EDP3045H, EDP3145H, JOI3043H, JOI3048H, and JOI3049H. Students may choose to focus on one of the four program strands: Policy, Leadership, Change, or Social Diversity. LHA1004H Research Literacy in Educational Leadership and Policy is strongly recommended, as is an appropriate research methods (RM) course selected in consultation with the Faculty MRP supervisor.
- **Major Research Paper (MRP):** LHA2001Y0 Major Research Paper to be carried out under the guidance of a faculty member.

**Program Length**

- 5 sessions full-time (typical registration sequence: F/W/S/F/W);
- 10 sessions part-time

**Time Limit**

- 3 years full-time;
- 6 years part-time

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**LHAE: Educational Leadership and Policy EdD**

**Admissions have been administratively suspended.**

**Doctor of Education**

**Program Description**

The EdD program in Educational Leadership and Policy is intended to shape highly competent leadership positions in school systems and other educational institutions. The program is specifically designed for working professional educators who want to develop the intellectual and research skills that will help them refine their practice as leaders in educational systems.

The EdD program is offered full-time in a cohort format. The department welcomes applicants with diverse but relevant backgrounds.

**EdD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education's additional admission requirements stated below.
- Master's degree in the area of Educational Leadership and Policy or an equivalent degree with high academic standing from a recognized university.
- In addition to responses to the Faculty questions in the online admissions application, a supplementary writing sample is required, which will help the admissions committee to assess an applicant's readiness to succeed in rigorous coursework and to conduct systematic research for the EdD. Applicants typically submit a master's-level Major Research Paper or thesis as their writing sample. Applicants who do not have a Major Research Paper or thesis must provide a writing sample that showcases their ability to write clearly and analytically about educational issues. Examples include a master's-level course paper, a policy document, and a professional publication.
- The applicant must be in a leadership position in education, or must have held a leadership position, or must demonstrate potential for leadership.

**Program Requirements**

- **Coursework.** Students must complete 4.0 core full-course equivalents (FCEs) as follows:
  - LHA3003H Designing Research Proposals in Educational Leadership and Policy (Credit/No Credit; 0.5 FCE).
  - LHA3004H Research and Literacy for the EdD Program (0.5 FCE).
  - LHA3005H Introduction to Research Methods for the EdD (RM) (0.5 FCE) or another research methods course.
  - LHA3006H Data Analysis for the Education Doctorate (RM) (0.5 FCE) or another research methods course.
  - LHA3007H Literature Reviews for the EdD Program (0.5 FCE).
• Comprehensive examination. Successful oral defence of a written paper that critically reviews and synthesizes the literature related to the problem of practice to be addressed in the student’s dissertation in practice, selected by the student in consultation with the supervisor/advisor. The comprehensive exam is normally taken at the end of Year 2, and must be taken no later than the end of Year 3. Students will be informed of their status (pass or fail) at the end of the oral exam. Students who are not successful in their first attempt will be permitted one additional attempt to pass.

• Thesis (dissertation in practice) proposal hearing.

• Thesis (dissertation in practice): The thesis (dissertation in practice) is the culminating component of the Doctor of Education degree in Educational Leadership and Policy that shall include an identification and investigation of a problem of practice, the application of theory and research to the problem of practice, and a design for action to address the problem of practice. Specifically, the thesis (dissertation in practice) consists of original research in the form of a written proposal or plan for innovative and impactful educational policy, guideline, advocacy, development project, or activism within or beyond a traditional educational setting, aimed at improving practice at local, regional, national, or international levels.

• Students are full-time and must maintain continuous registration full-time and pay full-time fees until all degree requirements, including the thesis (dissertation in practice), are completed.

• Students cannot transfer between the EdD and PhD programs.

Program Length

4 years

Time Limit

6 years

LHAE: Educational Leadership and Policy

EdD; Field: International Educational Leadership and Policy

Doctor of Education (Field: International Education Leadership and Policy)

Program Description

Within the Educational Leadership and Policy EdD program, the field in International Education Leadership and Policy offers a robust, world-class program of study structured for professionals working within international settings in positions of leadership and policymaking who want to create impact in their field and mobilize new solutions to real-world problems.

The EdD program is offered full-time in a cohort format and will be delivered in a hybrid modality with short on-campus Institutes. The majority of courses will be offered online. The department welcomes applicants with diverse but relevant backgrounds.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.

• Master’s degree in the area of Educational Leadership and Policy or an equivalent degree with high academic standing from a recognized university.

• Responses to the Faculty questions in the online admissions application: applicants will demonstrate experience and interest in studying international issues in education policy and leadership. In addition, a supplementary writing sample is required, which will help the admissions committee to assess an applicant’s readiness to succeed in rigorous coursework and to conduct systematic research for the EdD. Applicants typically submit a master’s-level Major Research Paper or thesis as their writing sample. Applicants who do not have a Major Research Paper or thesis must provide a writing sample that showcases their ability to write clearly and analytically about educational issues. Examples include a master’s-level course paper, a policy document, and a professional publication.

• The applicant must be in a leadership position in education in an international setting, or must have held a leadership position, or must demonstrate the relevance of the program to their position or professional development in international education policy.

Program Requirements

• Coursework. Students must complete 4.0 core full-course equivalents (FCEs) as follows:
  o LHA3003H Designing Research Proposals in Educational Leadership and Policy (0.5 FCE; Credit/No Credit)
  o LHA3005H Introduction to Research Methods for the EdD (RM) (0.5 FCE)
  o LHA3006H Data Analysis for the Education Doctorate-RM (0.5 FCE)
  o LHA3007H Literature Reviews for the EdD Program (0.5 FCE)
  o LHA3040H People and Power in Organizations (0.5 FCE)
  o LHA3041H Doctoral Seminar on Policy Issues in Education (0.5 FCE)
  o 0.5 elective FCE chosen from 1000, 3000, or 6000-level courses as available online or
    • individual reading course (LHA3052H) or
    • practicum course (CIE1002H) (0.5 FCE)
  o LHA3008H+ Professional Seminar and Dissertation Workshop in International Educational Leadership and Policy (0.5 FCE)
  o Courses will be offered in specialized sections for the International Educational Leadership and Policy field cohort with course syllabi adapted to reflect the international educational policy focus.
  o Attendance in an on-campus Institute will be required to allow face-to-face delivery of one course in each of Years 1, 2, and 3. The Institute will foster cohort engagement and exchange; orientation to the OISE professors, the University of Toronto, and the program.
Extended into session following academic session in which course is offered.

Educational programs. It best serves students who are the study of problems in the administration and leadership of The PhD program in Educational Leadership and Policy fosters Doctor of Philosophy (PhD) LHAE: Educational Leadership and Policy + Extended course. For academic reasons, coursework is 6 years Time Limit Program Length 4 years 6 years * Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

LHAE: Educational Leadership and Policy PhD Doctor of Philosophy The PhD program in Educational Leadership and Policy fosters the study of problems in the administration and leadership of educational programs. It best serves students who are committed to scholarship and research as a means for deepening their understanding of leadership in schools or in other educational and service institutions.

The program offers both full-time and flexible-time options. While experience in teaching and leadership is not an essential prerequisite for admission, such experience provides a desirable background. The department welcomes applicants with diverse but relevant backgrounds.

PhD Program Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education's additional admission requirements stated below.
- An appropriate master's degree, from a recognized university in a relevant discipline or professional program, with a minimum standing equivalent to a University of Toronto A–.
- In addition to responses to the Faculty questions in the online admissions application, a supplementary writing sample is required, which will help the admissions committee to assess an applicant's readiness to succeed in rigorous coursework and to conduct systematic research for the PhD. Applicants typically submit a master's-level Major Research Paper or thesis as their writing sample. Applicants who do not have a Major Research Paper or thesis must provide a writing sample that showcases their ability to write clearly and analytically about educational issues. The admissions committee will look for evidence that applicants understand how to, or have the potential to, craft an academic document, display an ability to define a research problem, devise an appropriate focus for an inquiry, assemble and analyze evidence, and develop conclusions in a rigorous manner. Examples include a master's-level course paper, a policy document, and a professional publication.
- Two letters of reference: one academic, the other either academic or professional.

Program Requirements

- Coursework. Students must complete a minimum of 3.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE.
  - 1.0 FCE in research methods, to be chosen in consultation with the faculty advisor (excluding LHA1003H and LHA1004H, which may not be counted towards this requirement). Students who have already attained an acceptable level of competence in research methodology may be authorized to choose a course in a different area of study.
  - At least 0.5 FCE at the 3000 level or the 6000 Special Topics level from the Educational Leadership and Policy program. Educational Leadership and Policy program course codes typically have a "0" in the second digit, for example "LHA30XX" and "LHA60XX." The following courses also count as Educational Leadership and Policy program courses: EDP3045H, EDP3145H, JOI3043H, JOI3048H, and JOI3049H.
- Comprehensive examination. Successful oral defence of a written paper that critically reviews and synthesizes the literature in the student's proposed thesis area, selected by the student in consultation with the supervisor/advisor. The comprehensive exam is normally taken at the end of Year 2, and must be taken no later than the end of Year 3. Students will be informed of their status (pass or fail) at the end of the oral exam. Students who are not successful in their first attempt will be permitted one additional attempt to pass.
- Thesis proposal hearing.
- Thesis.
Students must register continuously and pay the full-time fee until all degree requirements have been fulfilled.

Students cannot transfer between the full-time and flexible-time PhD options.

Students cannot transfer between the EdD and PhD programs.

Program Length

4 years

Time Limit

6 years

PhD Program (Flexible-Time)

Minimum Admission Requirements

Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education's additional admission requirements stated below.

An appropriate master's degree, from a recognized university in a relevant discipline or professional program, with a minimum standing equivalent to a University of Toronto A–.

In addition to responses to the Faculty questions in the online admissions application, a supplementary writing sample is required, which will help the admissions committee to assess an applicant's readiness to succeed in rigorous coursework and to conduct systematic research for the PhD. Applicants typically submit a master's-level Major Research Paper or thesis as their writing sample. Applicants who do not have a Major Research Paper or thesis must provide a writing sample that showcases their ability to write clearly and analytically about educational issues. The admissions committee will look for evidence that applicants understand how to, or have the potential to, craft an academic document, display an ability to define a research problem, devise an appropriate focus for an inquiry, assemble and analyze evidence, and develop conclusions in a rigorous manner. Examples include a master's-level course paper, a policy document, and a professional publication.

Two letters of reference: one academic, one professional.

Applicants must demonstrate that they are active professionals engaged in activities related to their proposed program of study. Capacity to secure blocks of time to enable concentrated study is required.

Program Requirements

Coursework. Students must complete a minimum of 3.0 full-course equivalents (FCEs) as follows:

- LHA3040H People and Power in Organizations (0.5 FCE).
- 1.0 FCE in research methods, to be chosen in consultation with the faculty advisor (excluding LHA1003H and LHA1004H, which may not be counted towards this requirement). Students who have already attained an acceptable level of competence in research methodology may be authorized to choose a course in a different area of study.

At least 0.5 FCE at the 3000 level or the 6000 Special Topics level from the Educational Leadership and Policy program. Educational Leadership and Policy program course codes typically have a "0" in the second digit, for example "LHA30XX" and "LHA60XX." The following courses also count as Educational Leadership and Policy program courses: EDP3045H, EDP3145H, JOI3043H, JOI3048H, and JOI3049H.

Comprehensive examination. Successful oral defence of a written paper that critically reviews and synthesizes the literature in the student's proposed thesis area, selected by the student in consultation with the supervisor/advisor. The comprehensive exam is normally taken at the end of Year 2, and must be taken no later than the end of Year 3. Students will be informed of their status (pass or fail) at the end of the oral exam. Students who are not successful in their first attempt will be permitted one additional attempt to pass.

Thesis proposal hearing.

Thesis.

Students must register continuously until all degree requirements have been fulfilled. They register full-time during the first four years and may continue as part-time thereafter, with their department's approval.

Students cannot transfer between the full-time and flexible-time PhD options.

Students cannot transfer between the EdD and PhD programs.

Program Length

6 years

Time Limit

6 years

LHAIE: Educational Leadership and Policy MA, MEd, EdD, PhD Courses

Some sections of existing courses are offered off campus and online in order to make them available to students in localities far from Toronto.

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<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>EDP3045H</td>
<td>Educational Policy and Program Evaluation</td>
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<tr>
<td>EDP3145H</td>
<td>Methodological Approaches for Researching Education Policy (RM) (Exclusions: LHA3145H, TPS3145H.)</td>
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<tr>
<td>JOI3043H</td>
<td>Development and Use of Surveys in Education Research (RM)</td>
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<td>JOI3048H</td>
<td>Intermediate Statistics in Educational Research: Multiple Regression Analysis (RM)</td>
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<td>JOI3049H</td>
<td>Multilevel and Longitudinal Modelling in Educational Research (RM)</td>
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<tr>
<td>LHA1003H</td>
<td>Designing Master's Research Proposals</td>
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<td>LHA1013H</td>
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<td>LHA1016H</td>
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<td>LHA1018H</td>
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<td>LHA1019H</td>
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<td>LHA1040H</td>
<td>Introduction to Educational Leadership and Policy: Policy, Leadership, Change, and Diversity</td>
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<tr>
<td>LHA1041H</td>
<td>Educational Administration II: Social and Policy Contexts of Schooling</td>
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<td>LHA1042H</td>
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<td>LHA1043H</td>
<td>Decolonizing and Antiracist Approaches to Educational Leadership (Exclusion: LHA5009H.)</td>
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<td>LHA1047H</td>
<td>Managing Changes in Classroom Practice</td>
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<td>LHA1048H</td>
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<td>LHA1050H</td>
<td>Themes and Issues in Policy, Leadership, Change, and Social Diversity</td>
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<td>LHA1052H</td>
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<tr>
<td>LHA1060H</td>
<td>School Leadership Seminar 1</td>
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<td>LHA1061H</td>
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<td>LHA1065H</td>
<td>Global Educational Equity and Quantitative Policy Research</td>
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<td>LHA1066H</td>
<td>Comparative and International Perspectives on Gender and Education Policy and Practice (Exclusion: CIE6000H.)</td>
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<tr>
<td>LHA2001Y</td>
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<tr>
<td>LHA3003H</td>
<td>Designing Research Proposals in Educational Leadership and Policy (Credit/No Credit)</td>
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<tr>
<td>LHA3004H</td>
<td>Research Literacy for the EdD Program</td>
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<tr>
<td>LHA3005H</td>
<td>Introduction to Research Methods for the EdD (RM) (Prerequisite: LHA3004H; applies to regular ELP EdD students only.)</td>
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<tr>
<td>LHA3006H</td>
<td>Data Analysis for the Education Doctorate (RM) (Prerequisite: LHA3005H.)</td>
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<tr>
<td>LHA3007H</td>
<td>Literature Reviews for the EdD Program (Prerequisite: LHA3004H.)</td>
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<tr>
<td>LHA3008H</td>
<td>Professional Seminar and Dissertation Workshop in International Educational Leadership and Policy (Exclusion: LHA6011H.)</td>
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<tr>
<td>LHA3030H</td>
<td>Advanced Legal Issues in Education</td>
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<tr>
<td>LHA3040H</td>
<td>People and Power in Organizations</td>
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<tr>
<td>LHA3041H</td>
<td>Administrative Theory and Educational Problems II: Doctoral Seminar on Policy Issues in Education</td>
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<td>LHA3042H</td>
<td>Field Research in Educational Leadership and Policy (RM)</td>
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<td>LHA3044H</td>
<td>Internship/Practicum in Educational Leadership and Policy</td>
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<tr>
<td>LHA3047H</td>
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<td>LHA3052H</td>
<td>Individual Reading and Research in Educational Leadership and Policy: Doctoral Level</td>
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<tr>
<td>LHA3055H</td>
<td>Democratic Values, Student Engagement, and Democratic Leadership</td>
</tr>
<tr>
<td>LHA3064H</td>
<td>Global Governance and Educational Change: the Politics of International Cooperation in Education (Prerequisite: CIE1001H. Exclusion: LHA3180H.)</td>
</tr>
<tr>
<td>LHA5000H to LHA5020H</td>
<td>Special Topics in Educational Leadership and Policy: Master's Level</td>
</tr>
<tr>
<td>LHA6000H to LHA6021H</td>
<td>Special Topics in Educational Leadership and Policy: Doctoral Level</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

### Interprogram Courses

The following course is accepted for credit in the Educational Leadership and Policy program and will satisfy that program's requirement. For a description, see the relevant program.
### LHA1815H: Economics and Finance of Higher Education (Exclusion: LHA2006H.)

### LHA: Higher Education MEd

**Master of Education**

#### Program Description

The Master of Education is a course-based, professional degree designed primarily for higher education professionals seeking to advance their understanding of the issues confronting their institution and the postsecondary system. It best serves students seeking research-informed knowledge on how colleges and universities work in order to pursue or advance administrative and policy careers related to higher education.

The program can be pursued on a full-time or part-time basis. Note that the field in Higher Education Leadership is offered part-time only.

**The Master of Education is offered in four fields:**

1. Education in the Professions
2. Higher Education
3. Higher Education Leadership
4. Student Development and Student Services in Higher Education

#### Field: Education in the Professions

The Education in the Professions field is a course-based professional master’s designed for individuals working in areas such as the health professions, law and law enforcement, engineering, and public services, who are planning a career in educational administration, teaching, and leadership. This field introduces the broader area of higher education as well as current issues and research methods in education research in the professions.

Two options are offered: 1) Coursework Only Option; and 2) Coursework Plus Major Research Paper Option. Students initially apply to and register in the Coursework Only Option. For registration in the Coursework Plus Major Research Paper Option, departmental permission is required.

#### Field: Higher Education

The Higher Education field is focused on the issues confronting higher education institutions and the postsecondary education system. It is intended for students seeking research-informed knowledge on how colleges and universities work in order to pursue and advance their administrative and policy careers in higher education. Students are accepted every year and can register on a full-time or part-time basis.

#### Field: Higher Education Leadership

The Higher Education Leadership field is specifically designed for professionals working in higher education at entry to mid-levels, who seek to build their careers in higher education. With a focus on leadership skills for both the college and university contexts, the field is aimed to bridge the understanding and collaboration of leaders across both sectors. Students move through the Higher Education field as a cohort and register part-time. Classes are generally offered in a compressed format to suit working professionals. Applicants are accepted to the field every other year.

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university with a grade equivalent to a University of Toronto mid-B or better in the final year.

#### Program Requirements

- **Coursework.** Students must complete 4.0 full-course equivalents (FCEs) as follows:
  - LHA3803H Doctoral Seminar: Recurring Issues in Postsecondary Education (0.5 FCE), to be taken at the beginning of the program.
  - 0.5 FCE in research methods approved by the faculty advisor.
  - 3.0 other FCEs, of which 1.5 FCEs must be from the Higher Education program.
- **Thesis.**

#### Program Length

- 6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
- 10 sessions part-time

#### Time Limit

- 3 years full-time;
- 6 years part-time
Field: Student Development and Student Services in Higher Education

The Student Development and Student Services in Higher Education field is designed for student development and student services professionals who are seeking to acquire the knowledge and skills that are evidence- and experientially based to provide leadership in various types of postsecondary institutions.

LHAE: Higher Education MEd; Field: Education in the Professions

Master of Education (Field: Education in the Professions)

Program Description

The Master of Education in Higher Education is a course-based, professional degree designed primarily for higher education professionals seeking to advance their understanding of the issues confronting their institution and the postsecondary system. It best serves students seeking research-informed knowledge on how colleges and universities work in order to pursue or advance administrative and policy careers related to higher education. The program can be pursued on a full-time or part-time basis.

Within the MEd program, the field in Education in the Professions is a course-based professional master’s designed for individuals working in areas such as the health professions, law and law enforcement, engineering, and public services, who are planning a career in educational administration, teaching, and leadership. This field introduces the broader area of higher education as well as current issues and research methods in education research in the professions.

The required courses in this field are offered online.

Application Requirements

- Current resumé.
- Transcript(s) from each postsecondary institution attended.
- One academic and one professional reference letter.
- Responses to Faculty questions in the online admissions application describing the applicant’s motivation for wishing to take the program, as well as how previous qualifications and professional work experience support their interest in the program and the field.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university with a grade equivalent to a University of Toronto mid-B or better in the final year.

Program Requirements

- **Coursework.** Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - LHA1803H Recurring Issues in Postsecondary Education (0.5 FCE)
  - LHA1812H Education and the Professions (0.5 FCE)
  - LHA1819H Governance in Higher Education (0.5 FCE)
  - LHA1823H Scholarship of Teaching and Learning (0.5 FCE)
  - LHA1844H The Student Experience in Postsecondary Education (0.5 FCE)
  - LHA1848H Innovative Curricula in Higher Education and Professional Programs (0.5 FCE)
  - 0.5 FCE in research methods (RM). Course will vary according to instructor availability.
  - 1.5 elective FCEs in the general Higher Education program.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F); 10 sessions part-time

Time Limit

3 years full-time; 6 years part-time

LHAE: Higher Education MEd; Field: Higher Education

Master of Education (Field: Higher Education)

Program Description

The Master of Education in Higher Education is a course-based, professional degree designed primarily for higher education professionals seeking to advance their understanding of the issues confronting their institution and the postsecondary system. It best serves students seeking research-informed knowledge on how colleges and universities work in order to pursue or advance administrative and policy careers related to higher education. The program can be pursued on a full-time or part-time basis.

Within the MEd program, the field in Higher Education focuses on the issues confronting higher education institutions and the postsecondary education system. It is intended for students seeking research-informed knowledge on how colleges and universities work in order to pursue and advance administrative and policy careers related to higher education. Students are accepted every year and can register on a full-time or part-time basis.

Application Requirements

- Current resumé.
- Transcript(s) from each postsecondary institution attended.
- One academic and one professional reference letter.
• Responses to Faculty questions in the online admissions application describing the applicant’s motivation for wishing to take the program, as well as how previous qualifications and professional work experience support their interest in the program and the field.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
• An appropriate bachelor’s degree from a recognized university with a grade equivalent to a University of Toronto mid-B or better in the final year.

Program Requirements

• Coursework. Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  o LHA1803H Recurring Issues in Postsecondary Education (0.5 FCE), to be taken at the beginning of the program.
  o 0.5 FCE in research methods.
  o 4.0 FCEs in electives, of which 1.5 FCEs must be from the Higher Education field.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F);
10 sessions part-time

Time Limit

3 years full-time;
6 years part-time

LHAE: Higher Education MEd; Field: Higher Education Leadership

Master of Education (Field: Higher Education Leadership)

Program Description

The Master of Education in Higher Education is a course-based, professional degree designed primarily for higher education professionals seeking to advance their understanding of the issues confronting their institution and the postsecondary system. It best serves students seeking research-informed knowledge on how colleges and universities work in order to pursue or advance administrative and policy careers related to higher education.

Within the MEd program, the field in Higher Education Leadership is specifically designed for professionals working in higher education at entry to mid-levels, who seek to build their careers in higher education. With a focus on leadership skills for both the college and university contexts, the field is aimed to bridge the understanding and collaboration of leaders across both sectors. Students move through the Higher Education field as a cohort and register part-time. Classes are generally offered in a compressed format to suit working professionals.

Applicants are accepted every other year. This field is offered part-time only.

Application Requirements

• Current resumé.
• Transcript(s) from each postsecondary institution attended.
• One academic and one professional reference letter.
• Responses to Faculty questions in the online admissions application describing the applicant’s motivation for wishing to take the program, as well as how previous qualifications and professional work experience support their interest in the program and the field.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
• An appropriate bachelor’s degree from a recognized university with a grade equivalent to a University of Toronto mid-B or better in the final year.

Program Requirements

• Coursework. Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  o LHA1803H Recurring Issues in Postsecondary Education (0.5 FCE), to be taken at the beginning of the program.
  o LHA1811H Organizational Change in Higher Education.
  o LHA1815H Economics and Finance of Higher Education.
  o LHA1836H Critical Analysis of Research in Higher Education.
  o LHA1847H Human Resource and Diversity Issues in Higher Education.
  o LHA1854H Student Development Theory.
  o LHA1860H Capstone Project for Higher Education Leadership Cohort Option.
  o 1.5 FCEs in elective courses.

Program Length

10 sessions part-time

Time Limit

6 years part-time
LHAE: Higher Education MEd; Field: Student Development and Student Services in Higher Education

Master of Education (Field: Student Development and Student Services in Higher Education)

Program Description

The Master of Education in Higher Education is a course-based, professional degree designed primarily for higher education professionals seeking to advance their understanding of the issues confronting their institution and the postsecondary system. It best serves students seeking research-informed knowledge on how colleges and universities work in order to pursue or advance administrative and policy careers related to higher education. The program can be pursued on a full-time or part-time basis.

Within the MEd program, the field in Student Development and Student Services in Higher Education is designed for student development and student services professionals who are seeking to acquire the knowledge and skills that are evidence- and experientially based to provide leadership in various types of postsecondary institutions.

Application Requirements

- Current resumé.
- Transcript(s) from each postsecondary institution attended.
- One academic and one professional reference letter.
- Responses to Faculty questions in the online admissions application describing the applicant’s motivation for wishing to take the program, as well as how previous qualifications and professional work experience support their interest in the program and the field.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university with a grade equivalent to a University of Toronto mid-B or better in the final year.

Program Requirements

- Coursework. Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - LHA1803H Recurring Issues in Postsecondary Education (0.5 FCE), to be taken at the beginning of the program.
  - 1.5 FCEs in Student Development and Student Services:
    - LHA1844H The Student Experience in Postsecondary Education (0.5 FCE).
    - LHA1854H Student Development Theory (0.5 FCE).
    - LHA1856H Advanced Student Development Theories in Higher Education (0.5 FCE).
  - 3.0 FCEs including:
    - 0.5 FCE from the Higher Education field.
    - 0.5 FCE in research methods.
  - Depending on an individual student’s professional experience, students may be advised to take LHA1853H Introduction to Student Services (0.5 FCE).

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F); 10 sessions part-time

Time Limit

3 years full-time; 6 years part-time

LHAE: Higher Education EdD

Doctor of Education

Program Description

The EdD Program in Higher Education is intended to shape highly competent professionals in leadership positions in higher education administration or policy. It best serves students seeking the knowledge and research skills needed to pursue research-grounded professional careers in colleges, universities, government agencies, professional associations, and international organizations.

The EdD program can be pursued either on a part-time or full-time basis. The department welcomes applicants with diverse but relevant backgrounds.

Students cannot transfer between the EdD and PhD programs.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- Relevant and acceptable MEd or MA. In individual cases, students with a highly relevant master’s degree or other equivalent graduate degree may be admitted, but additional courses in Higher Education will be required.

Program Requirements

- Coursework. Students must complete a minimum of 4.0 full-course equivalents (FCEs) as follows:
  - LHA1803H Recurring Issues in Postsecondary Education (0.5 FCE).
  - At least 1.0 other FCE in Higher Education.
  - 0.5 FCE in research methods approved by the faculty advisor.
  - 1.0 FCE selected either in Higher Education or in another graduate program at OISE or, with the approval of the faculty advisor, in another graduate department at the University of Toronto.
• Supervised applied research practicum (0.5 FCE).
• Collaborative proseminar (0.5 FCE).

• Comprehensive examination. The objective of the doctoral comprehensive examination is to ensure that all students master at least one substantive research area in Higher Education and have the capacity to develop their own written analysis of selected issues within this area. The examination is designed to ensure that students are familiar with the literature and concepts associated with their special area of study within the field of Higher Education.

• Thesis reporting the results of original research on an applied topic in postsecondary education.

• Students may begin their EdD degree on a full-time or a part-time basis but must maintain continuous registration. They must register full-time for a minimum of two consecutive sessions, not including Summer, of on-campus study. Once enrolled full-time, students must maintain continuous registration full-time and pay full-time fees until all degree requirements, including the thesis, are completed.

PhD Program (Full-Time Option)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education's additional admission requirements stated below.

• Relevant and acceptable MEd or MA. In individual cases, students with a highly relevant master's degree or other equivalent graduate degree may be admitted, but additional courses in Higher Education may be required.

Program Requirements

• Coursework. Students must complete a minimum 3.0 full-course equivalents (FCEs) as follows:
  o LHA3803H Doctoral Seminar: Recurring Issues in Postsecondary Education (0.5 FCE), to be taken at the beginning of the program.
  o LHA3804H Doctoral Research Seminar in Postsecondary Education (0.5 FCE), to be taken at the beginning of the program.
  o At least 1.0 other FCE in Higher Education.
  o 0.5 FCE in research methods approved by the faculty advisor.
  o 0.5 FCE selected either in Higher Education or in another graduate program at OISE, or, with the approval of the faculty advisor, in another graduate department at the University of Toronto.

• Comprehensive examination. The objective of the doctoral comprehensive examination is to ensure that all students master at least one substantive research area in Higher Education and have the capacity to develop their own written analysis of selected issues within this area. The examination is designed to ensure that students are familiar with the literature and concepts associated with their special area of study within the field of Higher Education.

• Thesis reporting the results of original research in postsecondary education.

• Students must register continuously and pay the full-time fee until all degree requirements have been fulfilled.

• Students cannot transfer between the full-time and flexible-time PhD options.

• Students cannot transfer between the EdD and PhD programs.

Program Length

4 years

Time Limit

6 years
PhD Program (Flexible-Time Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Leadership, Higher and Adult Education’s additional admission requirements stated below.
- Relevant and acceptable MEd or MA. In individual cases, students with a highly relevant master’s degree or other equivalent graduate degree may be admitted, but additional courses in Higher Education may be required.
- Applicants must demonstrate that they are currently employed and are active professionals engaged in activities related to their proposed program of study. Applicants should have capacity to secure blocks of time to enable concentrated study.

Program Requirements

- **Coursework.** Students must complete a minimum 3.0 full-course equivalents (FCEs) as follows:
  - LHA3803H *Doctoral Seminar: Recurring Issues in Postsecondary Education* (0.5 FCE), to be taken at the beginning of the program.
  - LHA3804H *Doctoral Research Seminar in Postsecondary Education* (0.5 FCE), to be taken at the beginning of the program.
  - At least 1.0 other FCE in Higher Education.
  - 0.5 FCE in research methods approved by the faculty advisor.
  - 0.5 FCE selected either in Higher Education or in another graduate program at OISE, or, with the approval of the faculty advisor, in another graduate department at the University of Toronto.

- **Comprehensive examination.** The objective of the doctoral comprehensive examination is to ensure that all students master at least one substantive research area in Higher Education and have the capacity to develop their own written analysis of selected issues within this area. The examination is designed to ensure that students are familiar with the literature and concepts associated with their special area of study within the field of Higher Education.

- **Thesis** reporting the results of original research in postsecondary education.

- Students must register continuously until all degree requirements have been fulfilled. They must register full-time during the first four years and may continue as part-time thereafter, with their department’s approval.

- Students cannot transfer between the full-time and flexible-time PhD options.

- Students cannot transfer between the EdD and PhD programs.

Program Length

6 years

Time Limit

6 years

LHA: Higher Education MA, MEd, EdD, PhD Courses

Not all courses are offered every year. Please review the course schedule on the Registrar’s Office and Student Experience website.

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<td>LHA1803H</td>
<td>Recurring Issues in Postsecondary Education</td>
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<td>LHA1804H</td>
<td>Issues in Medical/Health Professional Education</td>
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<td>LHA1805H</td>
<td>The College Sector</td>
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<td>LHA1806H</td>
<td>Systems of Higher Education</td>
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<tr>
<td>LHA1807H</td>
<td>System-Wide Planning and Policy for Higher Education</td>
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<tr>
<td>LHA1809H</td>
<td>Administration of Colleges and Universities</td>
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<tr>
<td>LHA1811H</td>
<td>Organizational Change in Higher Education</td>
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<tr>
<td>LHA1812H</td>
<td>Education and the Professions</td>
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<tr>
<td>LHA1814H</td>
<td>Lifelong Learning and Professional and Vocational Education (Exclusion: LHA5807H Special Topics in Higher Education: Master’s Level.)</td>
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<tr>
<td>LHA1816H</td>
<td>Sociology of Higher Education (Exclusion: LHA5807H Special Topics in Higher Education: Master’s Level.)</td>
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<tr>
<td>LHA1818H</td>
<td>Politics of Higher Education (Exclusion: LHA5806H Special Topics in Higher Education: Master’s Level.)</td>
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<tr>
<td>LHA1819H</td>
<td>Governance in Higher Education</td>
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<tr>
<td>LHA1822H</td>
<td>Teaching and Learning in Higher Education (Exclusion: LHA5809H Special Topics in Higher Education: Master’s Level.)</td>
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<td>LHA1823H</td>
<td>Scholarship of Teaching and Learning (Exclusion: LHA5814H Special Topics in Higher Education: Master’s Level.)</td>
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<td>LHA1825H</td>
<td>Comparative Education Theory and Methodology (RM)</td>
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<td>Comparative Higher Education</td>
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<td>LHA1828H</td>
<td>Evaluation in Higher Education (RM)</td>
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<td>LHA1834H</td>
<td>Qualitative Research in Higher Education (RM)</td>
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<tr>
<td>LHA1835H</td>
<td>Logics and Strategies of Case Study Research (RM)</td>
</tr>
<tr>
<td>LHA1836H</td>
<td>Critical Analysis of Research in Higher Education (RM)</td>
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<tr>
<td>LHA1844H</td>
<td>The Student Experience in Postsecondary Education</td>
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<tr>
<td>LHA1845H</td>
<td>Indigenous Students in Higher Education (Exclusion: LHA5804.)</td>
</tr>
<tr>
<td>LHA1846H</td>
<td>Internationalization of Higher Education in a Comparative Perspective</td>
</tr>
<tr>
<td>LHA1847H</td>
<td>Human Resource and Diversity Issues in Higher Education</td>
</tr>
<tr>
<td>LHA1848H</td>
<td>Innovative Curricula in Higher Education and Professional Programs</td>
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<tr>
<td>LHA1849H</td>
<td>Faculty in Colleges and Universities</td>
</tr>
<tr>
<td>LHA1852H</td>
<td>Individual Reading and Research in Higher Education: Master's Level</td>
</tr>
<tr>
<td>LHA1853H</td>
<td>Introduction to Student Services</td>
</tr>
<tr>
<td>LHA1854H</td>
<td>Student Development Theory</td>
</tr>
<tr>
<td>LHA1855H</td>
<td>Capstone in Student Development and Student Services</td>
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<tr>
<td>LHA1856H</td>
<td>Advanced Student Development Theories in Higher Education</td>
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<tr>
<td>LHA1858H</td>
<td>Internship in Student Services 1 (Prerequisite: LHA1854H. Exclusion: LHA5812H.)</td>
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<tr>
<td>LHA1859H</td>
<td>Internship in Student Services 2 (Prerequisite: LHA1858H. Exclusion: LHA5813H.)</td>
</tr>
<tr>
<td>LHA1860H</td>
<td>Capstone Project for Higher Education Leadership Cohort Option (Exclusion: LHA5805H Special Topics in Higher Education: Master's Level.)</td>
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<tr>
<td>LHA3803H</td>
<td>Doctoral Seminar: Recurring Issues in Postsecondary Education</td>
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<tr>
<td>LHA3804H</td>
<td>Doctoral Research Seminar in Higher Education</td>
</tr>
<tr>
<td>LHA3810H</td>
<td>International Academic Relations</td>
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<tr>
<td>LHA3852H</td>
<td>Individual Reading and Research in Higher Education: Doctoral Level</td>
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<tr>
<td>LHA5800H to LHA5825H</td>
<td>Special Topics in Higher Education: Master's Level</td>
</tr>
<tr>
<td>LHA6800H to LHA6810H</td>
<td>Special Topics in Higher Education: Doctoral Level</td>
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</table>

**Interprogram Course**

The following course is accepted for credit in the Higher Education program and will satisfy that program’s requirement. For a description, see the relevant program.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>SJE2941H</td>
<td>Bourdieu: Theory of Practice in Social Sciences</td>
</tr>
</tbody>
</table>
Linguistics

Linguistics: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Linguistics

MA and PhD

- Fields:
  - Language Variation;
  - Psycholinguistics;
  - Theoretical Linguistics

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Jewish Studies
  - Linguistics, PhD

- Sexual Diversity Studies
  - Linguistics, MA, PhD

Overview

The discipline of linguistics focuses on the nature of human language and how its many systems can be accounted for. The Department of Linguistics focuses on three major areas — theoretical linguistics, language variation and change, and psycholinguistics — with an emphasis on the intersections between these areas.

The core areas of research and teaching in the MA and PhD are:

- Theoretical Linguistics (generative grammar: phonetics, phonology, morphology, syntax, semantics)
- Language Variation (sociolinguistics, dialectology, language variation, language change)
- Psycholinguistics (comprehension and production, language acquisition, both in relation to linguistic theory)

Contact and Address

Web: www.linguistics.utoronto.ca
Email: linguistics@utoronto.ca
Telephone: (416) 978-4029
Fax: (416) 971-2688

Department of Linguistics
University of Toronto
Sidney Smith Hall
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Toronto, Ontario M5S 3G3
Canada

Linguistics: Graduate Faculty

Full Members

Atkinson, Emily - BA, MA, MS, PhD
Beekhuizen, Barend - BA, MA, PhD
Bejar, Susana - BA, MA, PhD
Chambers, Craig - BA, MA, MA, PhD
Cuervo, M. Cristina - PhD
Grigoroglou, Myrto - PhD, PhD
Hachimi, Atiq - BA, MA, PhD
Heller, Daphna - PhD
Ippolito, Michela - BA, MPH, PhD
Jurgec, Peter - BA, PhD, ScD
Kahnemuyipour, Arsalan - PhD
Kang, Yoonjung - BA, PhD
Kochetov, Alexei - BA, MA, PhD
Kush, Dave W. - BA, PhD
Monahan, Philip Joseph - BPhil, MPH, PhD
Moulton, Keir - PhD (Graduate Chair)
Nagy, Naomi - BA, PhD
Oliveira de Lima, Suzi - PhD
Ozburn, Avery - BMath, MA, PhD
Perez-Leroux, Ana Teresa - MA, PhD
Roberge, Yves - BA, MA, PhD
Tagliamonte, Sali - AB, MA, DPhil (Chair)
Thomas, Guillaume - PhD

Members Emeriti

Chambers, J. - DipEd, BA, MA, PhD
Cowper, Elizabeth - BA, AM, PhD
Dresher, B. Elan - BA, PhD
Johns, Alana - BA, MA, PhD
Massam, Diane - BA, MA, PhD

Associate Members

Bhatt, Parth - BA, MA, PhD
Brant, Tahohtarayte Joe - MA
Brousseau, Anne-Marie - PhD
Chasin, Marshall - BSc, MSc
Colantoni, Laura - MA, PhD
DeCaire, Ryan - MA
Dunbar, Ewan - BS, MA, PhD
Ehrlich, Susan - PhD
Helms-Park, Rena - BA, MA, AM, DPhil
Johnson, Elizabeth - BA, MA, PhD
Mateo Pedro, Pedro - PhD
Nikiema, Emmanuel - PhD
Pirvulescu, Mihaela - MA, PhD
Sanders, Nathan - PhD
Sidnell, Jack - BA, MA, PhD
Steele, Jeffrey - BA, MA, PhD
Tamminga, Meredith - PhD
Taniguchi, Ai - BA, MA, PhD
Tieu, Lyn - BS, MA, MA, PhD
Todorovic, Neda - PhD
Troberg, Michelle - BE, BA, MA, PhD
Linguistics: Linguistics MA

Master of Arts

Program Description

The MA program in Linguistics offers comprehensive training in three areas of strength: theoretical linguistics, language variation and change, and psycholinguistics. Students complete rigorous coursework with research training in their preferred area of study. By the time of graduation, students are equipped with professional-level skills in interpretation of data, analysis, and argumentation.

The department offers one- and two-year MA options. The majority of students are admitted to the one-year MA option.

MA Program (One-Year Advanced-Standing Option — Standard Admission)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Linguistics' additional admission requirements stated below.
- Applicants with a bachelor's degree, with a minimum B+ average, may be admitted to the one-year program. Admission requires a strong background in linguistics with at least courses in introductory phonetics, phonology, morphology, and syntax.

Program Requirements

- **Coursework.** Students must normally complete a total of 3.5 full-course equivalents (FCEs) as follows:
  - 1.0 FCE of the following, if not already taken: JAL1145H, LIN1121H, LIN1131H, or their equivalents.
  - 1.5 FCEs from other Linguistics course offerings determined by the Graduate Coordinator.
  - 1.0 FCE: LIN2100Y Linguistic Forum including regular class meetings in which students discuss and present their research topics and a final paper, completed under the supervision of a faculty member working in the same research area.
- All students must demonstrate an ability to read professionally in one language other than English. The choice of language must be approved by the Graduate Coordinator, having regard to the student's field of research. In some circumstances, demonstrated competence in computer programming may satisfy the requirement.

Program Length

3 sessions (typical registration sequence: F/W/S)

Time Limit

3 years

Linguistics: Linguistics PhD

Doctor of Philosophy

Program Description

The PhD program in Linguistics offers comprehensive and rigorous training in an environment that encourages collaboration across the fields of Theoretical Linguistics, Language Variation and Change, and Psycholinguistics. Students achieve an advanced understanding of language and are equipped with professional-level skills in analysis, argumentation, interpretation, and quantitative reasoning. While many graduates choose academic positions, many others
choose to pursue careers in fields such as education, publishing, and data science.

Applicants may enter the PhD program via one of two routes: 1) following completion of an MA degree; 2) direct entry following completion of a bachelor's degree.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Linguistics' additional admission requirements stated below.
- Applicants with a bachelor's degree, with a minimum A– average, may be admitted to the direct-entry PhD option. Admission requires a strong background in linguistics with courses in introductory phonetics, phonology, morphology, syntax, and a demonstration of capacity for original research.

**Program Requirements**

- **Coursework.** By the end of Year 2, students must successfully complete a total of 5.5 full-course equivalents (FCEs) with a minimum median grade of A–:
  - 2.5 FCEs or their equivalents must be completed if they have not been taken previously: JAL1145H, LIN1104H, LIN1121H, LIN1131H, LIN1145H.
  - If these have been previously taken, a balance of electives must be taken to fulfill the 2.5 FCE requirement, chosen in consultation with the Graduate Coordinator.
  - 0.5 FCE from JLP2451H, JLP2452H, LIN1107H, LIN1106H, LIN1107H, LIN1112H, LIN1156H, LIN1211H, LIN1255H, LIN1256H, LIN1271H, LIN1272H, LIN1276H.
  - Of the above courses, 1.0 FCE must be taken at the 1200 level, with 0.5 FCE in Phonology, Syntax, or Semantics.
  - 0.5 FCE: LIN2101H *Junior Forum* (Credit/No Credit), taken in Year 1.
  - 2.0 FCEs: LIN2201Y *Generals Paper I* and LIN2202Y *Generals Paper II* — completion in two distinct areas of study. Topics must be approved by the Graduate Coordinator.

- **Residency.** During Years 1 and 2, students are normally required to be on campus full-time; i.e., in such geographical proximity as to be able to visit the campus regularly and to participate fully in the department's activities associated with the program.

- **Language.** Students must demonstrate an ability to read professionally in one language other than English. The choice of language must be approved by the Graduate Coordinator, having regard to the student's field of research. In some circumstances, demonstrated competence in computer programming may satisfy the requirement.

- **Thesis.** Candidates are required to present a thesis, which must be an original contribution to linguistic knowledge. Both the preparation for and the writing of the thesis will be carried out under the supervision of members of the department.

**Program Length**

4 years full-time

---

**Time Limit**

6 years full-time

**PhD Program (Direct-Entry)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Linguistics' additional admission requirements stated below.
- Applicants with a bachelor's degree, with a minimum A– average, may be admitted to the direct-entry PhD option. Admission requires a strong background in linguistics with courses in introductory phonetics, phonology, morphology, syntax, and a demonstration of capacity for original research.

**Program Requirements**

- **Coursework.** By the end of Year 3, students must successfully complete a total of 7.5 full-course equivalents (FCEs) with a minimum median grade of A–:
  - 2.5 FCEs or their equivalents must be completed if they have not been taken previously: JAL1145H, LIN1104H, LIN1121H, LIN1131H, LIN1145H.
  - If these have been previously taken, a balance of electives must be taken to fulfill the 3.0 FCE requirement, chosen in consultation with the Graduate Coordinator.
  - 0.5 FCE from JLP2451H, JLP2452H, LIN1107H, LIN1106H, LIN1107H, LIN1112H, LIN1156H, LIN1211H, LIN1255H, LIN1256H, LIN1271H, LIN1272H, LIN1276H.
  - Of the above courses, 1.0 FCE must be taken at the 1200 level, with 0.5 FCE in Phonology, Syntax, or Semantics.
  - 0.5 FCE: LIN2101H *Junior Forum* (Credit/No Credit), taken in Year 1.
  - 2.0 elective FCEs; of these, 0.5 FCE may be taken outside the Department of Linguistics, upon consultation with the Graduate Coordinator.
  - Of the above courses, 1.0 FCE must be taken at the 1200 level, with 0.5 FCE in Phonology, Syntax, or Semantics.
  - 0.5 FCE: LIN2201Y *Generals Paper I* and LIN2202Y *Generals Paper II* — completion in two distinct areas of study. Topics must be approved by the Graduate Coordinator.

- **Residency.** During Years 1, 2, and 3, students are normally required to be on campus full-time; i.e., in such geographical proximity as to be able to visit the campus regularly and to participate fully in the department's activities associated with the program.

- **Language.** Students must demonstrate an ability to read professionally in one language other than English. The choice of language must be approved by the Graduate Coordinator, having regard to the student's field of research. In some circumstances, demonstrated competence in computer programming may satisfy the requirement.

- **Thesis.** Candidates are required to present a thesis, which must be an original contribution to linguistic knowledge. Both the preparation for and the writing of the thesis will be carried out under the supervision of members of the department.

**Program Length**

5 years full-time
Time Limit

7 years full-time

Linguistics: Linguistics MA, PhD Courses

Course descriptions and other information are available each spring from the Coordinator of Graduate Studies. Not all courses are offered in a given year. Students should consult the departmental website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>JAL1145H</td>
<td>Field Methods</td>
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<tr>
<td>JFL1107H</td>
<td>Computational Methods for Linguists</td>
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<tr>
<td>JFL1207H</td>
<td>Advanced Computational Methods for Linguists (prerequisite: JFL1107H or equivalent; exclusions: CSC2501/485 and CSC2511/401)</td>
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<tr>
<td>JLP2450H</td>
<td>Psycholinguistics</td>
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<tr>
<td>JLP2451H</td>
<td>Language Acquisition</td>
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<tr>
<td>JLP2452H</td>
<td>Language Acquisition and Linguistic Theory</td>
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<tr>
<td>LIN1001H</td>
<td>Introduction to Linguistics: Sound Structure</td>
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<td>LIN1002H</td>
<td>Introduction to Linguistics: Sentence Structure and Meaning</td>
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<td>LIN1028H</td>
<td>Phonetics</td>
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<td>LIN1029H</td>
<td>Sound Patterns in Language</td>
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<td>LIN1032H</td>
<td>Syntactic Patterns</td>
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<td>LIN1041H</td>
<td>Introduction to Semantics</td>
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<td>LIN1070H</td>
<td>Language Processing</td>
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<td>LIN1103H</td>
<td>Introduction to Analysis and Argumentation</td>
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<td>LIN1104H</td>
<td>Quantitative Methods in Linguistics (Credit/No Credit)</td>
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<td>LIN1105H</td>
<td>Advanced Quantitative Methods in Linguistics (prerequisite: LIN1104H)</td>
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<tr>
<td>LIN1106H</td>
<td>Introduction to Experimental Design</td>
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<tr>
<td>LIN1107H</td>
<td>Computational Methods in Linguistics (exclusions: CSC2501H/485 Computational Linguistics and CSC2511H/401 Natural Language Computing)</td>
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<td>LIN1111H</td>
<td>Acoustic Phonetics</td>
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<td>LIN1112H</td>
<td>Phonetic Analysis</td>
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<td>LIN1121H</td>
<td>Phonological Theory</td>
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<td>LIN1131H</td>
<td>Introduction to Syntactic Theory</td>
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<td>LIN1133H</td>
<td>Morphology: Morphosyntactic Issues</td>
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<td>LIN1145H</td>
<td>Semantics</td>
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<td>LIN1151H</td>
<td>Urban Dialectology</td>
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<tr>
<td>LIN1156H</td>
<td>Language Variation and Change: Theory and Analysis</td>
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<td>LIN1211H</td>
<td>Advanced Phonetics (prerequisite: LIN220H, LIN323H, or permission of the instructor)</td>
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<td>Advanced Language Variation and Change I</td>
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<td>LIN1256H</td>
<td>Advanced Language Variation and Change II</td>
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<td>LIN1271H</td>
<td>Advanced Psycholinguistics I</td>
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<td>LIN1272H</td>
<td>Advanced Psycholinguistics II</td>
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<td>LIN1276H</td>
<td>Topics in Speech Perception</td>
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<td>LIN1505H</td>
<td>Research Seminar</td>
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<td>LIN2100Y</td>
<td>Linguistic Forum</td>
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<td>LIN2101H</td>
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<td>LIN2201Y</td>
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<tr>
<td>LIN2202Y</td>
<td>Generals Paper II</td>
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Management & Innovation

Management & Innovation: Introduction

Faculty Affiliation

University of Toronto Mississauga (UTM)

Degree Programs

Biotechnology

MBiotech

- Fields:
  - Biopharmaceutical;
  - Digital Health Technologies

Forensic Accounting

MFAcc

Management & Professional Accounting

MMPA

Management of Innovation

MMI

Sustainability Management

MScSM

- Concentrations:
  - Management;
  - Science

Urban Innovation

MUI

Combined Degree Programs

- UTM, Environmental Management (Major) Honours BA / MScSM
- UTM, Environmental Management (Specialist) Honours BA / MScSM
- UTM, Environmental Science (Major) Honours BSc / MScSM
- UTM, Environmental Science (Specialist) Honours BSc / MScSM

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Environmental Studies
  - Sustainability Management, MScSM

- Sexual Diversity Studies
  - Sustainability Management, MScSM

Overview

The Institute for Management & Innovation (IMI) is a hub that fosters inter- and transdisciplinary research and scholarship in the area of innovations of human, social, and organizational processes and transformational leadership, and develops high-calibre programs that are informed by and reflective of these activities. IMI produces transformational leaders with breadth and depth in one or more chosen fields of science, social science, humanities, and the professions and a focus on innovation as it applies to human interaction and relationships with society and technology, all closely linked to the external community.

IMI provides students with a platform to explore their scholarship in an environment that introduces them to different forms of analyses and critical thinking, solidifying their understanding of the questions and issues at hand. At the heart of IMI is a dedication to experiential education and work-integrated learning in academic programming. IMI offers professional master’s programs in professional and forensic accounting, biotechnology, innovation management, urban innovation, and sustainability, and an undergraduate minor in business, science, and entrepreneurship. IMI is also home to the BIGDataAIHUB and executive education (IMIx) and entrepreneurship support (ICUBE) programs.

Contact and Address

Institute for Management & Innovation

Web: www.utm.utoronto.ca/imi
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Telephone: (905) 569-4565
Fax: (905) 569-4302

University of Toronto Mississauga
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3359 Mississauga Road
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Biotechnology

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Master of Biotechnology Program
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Forensic Accounting

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Management & Innovation: Graduate Faculty

Full Members

Aggarwal, Pankaj - BEc, MBA, MBA, PhD
Aivazian, Varouj - BS, MA, PhD
Berrey, Ellen - AB, PhD
Brail, Shauna - BA, MA, PhD
Brooks, Leonard - BCom, MBA, CA, CPA
Caraway, Brett - BA, MA, PhD
Daniere, Amrita - AB, PhD
Galasso, Alberto - PhD
Hirsh, Jacob - BSc, MA, PhD
Hossain, Tanjim - BA, BS, PhD
Kang, Sonia - BSc, MA, PhD
Kant, Shashi - BE, MA, PhD
Krull, Ulrich - BSc, MSc, PhD
Lacetera, Nicola - PhD
Li, Yue - BSc, MBA, PhD
Park, Andreas - MEng, MPH, PhD
Prosser, Scott - BSc, MSc, DPhil
Rotenberg, Wendy - BA, MBA, PhD
Scharper, Stephen - BA, MA, PhD
Smiejauskas, Waldemar - BS, MS, PhD
Toh, Soo Min - BBA, PhD
Tombak, Mihkel - BS, MBA, AM, PhD
Vinodrai, Tara - BA, MA, PhD (Master of Urban Innovation Program Director)
Vyas, Dushyantkumar - PhD
Wensley, Anthony - MA, MA, MBA, PhD
Ye, Minlei - PhD
Zweig, David - BA, MASc, DPhil

Associate Members

Allen, Guy - BA, MA, PhD
Corrin, Michael - BFA, BA, BSc, MSc
Currie, Mark Allister - BSc, PhD
Gaetani, Ruben - BA, MA, MSc, PhD
Innocente, Nathan - BA, MA, MA
Iqbal, Abraham - BCom, MA, CPA
Kirsch, Tanya - BCom
Kitunen, Joan - BBM, CA, CPA
Parker, Jayson - PhD, PhD
Parkinson, Jack - BA, MA, PhD
Radhakrishnan, Phanikiran - DPhil
Revers, Leigh - MA, PhD
Schneider, Manfred - BCom, JD, MBA, CA, CPA
Schumann, Eckhard - BComm, CA, CPA
Trippen, Gerhard - MCS, PhD
Wiecek, Irene - BComm, CA, CPA
Yousie, Kevin - BBA, MBA
Yung, Otto - BASc, BComm, MA, MBA
Zuliani, Elisa - BBM, CA

Management & Innovation: Non-program Elective Courses

Institute for Management & Innovation

The following courses may be taken as electives by students enrolled in any U of T graduate program.
Management & Innovation: Biotechnology
MBiotech
Master of Biotechnology

Program Description

The MBiotech is a 24-month interdisciplinary, course-based professional degree program. Students come from various science and/or engineering backgrounds with the common goal of pursuing a career in the biotechnology, medical device, and pharmaceutical industries.

The program meets the evolving needs of students and this global industry sector. Faculty and instructors from various University of Toronto Faculties, biotechnology and pharmaceutical industries, and governmental agencies provide a truly interdisciplinary learning experience. Introductory laboratory courses and a year-long work internship round out the broad-based learning environment.

The program is a full-time, course-based master's degree which is launched in May each year.

Field: Biopharmaceutical

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation's additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in any area of biological sciences, chemistry, engineering, or related field with a minimum mid-B standing in the final two years of study.
- Applicants who have completed their studies outside of Canada must also submit their Graduate Record Examination (GRE) Subject Test scores and meet the SGS minimum standards for English proficiency.
- The MBiotech program also evaluates applicants on their letter of intent, CV, three references, and both a science and business interview.

Program Requirements

- Students must complete [9.5 graduate full-course equivalents (FCEs)](course) over a 24-month period:
  - 4.5 FCEs in MBiotech courses (includes credits for Seminar and Work Term Placement)
  - 3.5 FCEs in Biopharmaceutical courses
  - 1.5 FCEs in elective courses.
- An ongoing seminar series led by university, industry, and government specialists links all the participants with the academic, practical, and applied aspects of the program.

Program Length

6 sessions full-time (typical registration sequence: S/F/W/S/F/W)

Time Limit

3 years full-time

Required Courses

A general description of each required course is posted on the Biotechnology website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>BTC1600H</td>
<td>Biopartnering I</td>
</tr>
<tr>
<td>BTC1610H</td>
<td>Biopartnering II</td>
</tr>
<tr>
<td>BTC1700H</td>
<td>Molecular Biology Laboratory</td>
</tr>
<tr>
<td>BTC1710H</td>
<td>Biomaterials and Protein Chemistry Theory</td>
</tr>
<tr>
<td>BTC1720H</td>
<td>Biomaterials and Protein Chemistry Lab</td>
</tr>
<tr>
<td>BTC1800H</td>
<td>Biotechnology in Medicine</td>
</tr>
<tr>
<td>BTC1810H</td>
<td>Biotechnology and Drug Manufacturing</td>
</tr>
<tr>
<td>BTC1820H</td>
<td>Biotechnology in Agriculture and Natural Products</td>
</tr>
<tr>
<td>BTC1900Y</td>
<td>Work Term I (Internship)</td>
</tr>
<tr>
<td>BTC1910Y</td>
<td>Work Term II (Internship)</td>
</tr>
<tr>
<td>BTC2000H*</td>
<td>Effective Management Practices</td>
</tr>
<tr>
<td>BTC2010H</td>
<td>Fundamentals of Managerial Concepts</td>
</tr>
<tr>
<td>BTC2020H</td>
<td>Society, Organizations, and Technology</td>
</tr>
<tr>
<td>BTC2030H</td>
<td>Management of Technological Innovation</td>
</tr>
</tbody>
</table>

* Course that may continue over a program. The course is graded when completed.
* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTC1860H</td>
<td>Generations of Advanced Medicine: Biologics in Therapy (GAMBiT)</td>
</tr>
<tr>
<td>BTC1920Y</td>
<td>Work Term III (Internship)</td>
</tr>
<tr>
<td>IMI3002H</td>
<td>Change Management</td>
</tr>
<tr>
<td>BTC2100Y</td>
<td>Thesis Project in Biotechnology</td>
</tr>
<tr>
<td>BTC2110H</td>
<td>Topics in Biotechnology</td>
</tr>
<tr>
<td>BTC2120H</td>
<td>Topics in Biotechnology</td>
</tr>
</tbody>
</table>

Other graduate courses approved by Program Directors.

Field: Digital Health Technologies

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in any area of biology, chemistry, computer science, engineering, epidemiology, psychology, public health, sociology, statistics, or related field with a minimum mid-B standing in the final two years of study.
- A minimum 1.0 credit of university-level statistics (or equivalent) with at least a mid-B standing.
- Applicants who have completed their studies outside of Canada must also submit their Graduate Record Examination (GRE) Subject Test scores and meet the SGS minimum standards for English proficiency.
- The MBiotech program also evaluates applicants on their letter of intent, CV, three references and both a science and business interview.

Program Requirements

- Students must complete 9.5 **graduate full-course equivalents (FCEs)** over a 24-month period:
  - 4.5 FCEs in MBiotech courses (includes credits for Seminar and Placement)
  - 4.0 FCEs in Digital Health Technologies courses
  - 1.0 FCE in elective courses.
- An ongoing seminar series led by university, industry, and government specialists links all the participants with the academic, practical, and applied aspects of the program.

Program Length

6 sessions full-time (typical registration sequence: S/F/W/S/F/W)

Time Limit

3 years full-time

Required Courses

A general description of each required course is posted on the Biotechnology website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTC1600H</td>
<td>Biopartnering I</td>
</tr>
<tr>
<td>BTC1610H</td>
<td>Biopartnering II</td>
</tr>
<tr>
<td>BTC1842H</td>
<td>Medical Device Reimbursement</td>
</tr>
<tr>
<td>BTC1855H</td>
<td>Coding in R Language</td>
</tr>
<tr>
<td>BTC1859H</td>
<td>Data Science in Health I</td>
</tr>
<tr>
<td>BTC1877H</td>
<td>Data Science in Health II (Prerequisite: BTC1859H.)</td>
</tr>
<tr>
<td>BTC1878H</td>
<td>Health Data Visualization with Tableau (Prerequisites: BTC1855H and BTC1859H.)</td>
</tr>
<tr>
<td>BTC1882H</td>
<td>Digital Ethnography in Health</td>
</tr>
<tr>
<td>BTC1895H</td>
<td>Digital Health Marketing and Regulatory Compliance</td>
</tr>
<tr>
<td>BTC1899H</td>
<td>Digital Health Technology</td>
</tr>
<tr>
<td>BTC1900Y</td>
<td>Work Term I (Internship)</td>
</tr>
<tr>
<td>BTC1910Y</td>
<td>Work Term II (Internship)</td>
</tr>
<tr>
<td>BTC2000H</td>
<td>Effective Management Practices</td>
</tr>
<tr>
<td>BTC2010H</td>
<td>Fundamentals of Managerial Concepts</td>
</tr>
<tr>
<td>BTC2030H</td>
<td>Management of Technological Innovation</td>
</tr>
</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTC1860H</td>
<td>Generations of Advanced Medicine: Biologics in Therapy (GAMBiT)</td>
</tr>
<tr>
<td>BTC1889H</td>
<td>Deep Learning in Health (Prerequisites: BTC1859H and BTC1877H or 1.5 credits in statistics [undergraduate or graduate]. 1.0 credit of undergraduate/graduate</td>
</tr>
</tbody>
</table>
Management & Innovation: Forensic Accounting MFAcc

Master of Forensic Accounting

Admissions to the advanced-standing option of this program have been administratively suspended.

Program Description

The Master of Forensic Accounting (MFAcc) has been designed to provide graduates with the most thorough and rigorous preparation available in the investigative and forensic accounting field. Consequently, MFAcc graduates are expected to become recognized as the foremost forensic professionals in their chosen fields, whether those are in forensic accounting practice; in compliance functions in banks, insurance companies, and brokerages; business valuation; fraud investigation in law enforcement; securities enforcement; or in international forensic roles for the World Bank, the United Nations and its programs, and others.

MFAcc Program (Two-Year)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation’s additional admission requirements stated below.
• An appropriate bachelor’s degree from a recognized university in commerce, business administration, or accounting, with standing equivalent to at least a University of Toronto mid-B in the final year.
• Two years of relevant experience in business.
• Submission of an official MFAcc application via the SGS online application system.

Program Requirements

• Completion of a total of 5.0 required full-course equivalents (FCEs) or 10 half courses, taken sequentially.
• This is a part-time program which uses a combination of a one-week intensive in-residence session and e-learning modules with group discussions, assignments, and formal examinations. It is possible for students to participate from anywhere in the world.

Program Path

Year 1: Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA1900H</td>
<td>Forensic Accounting and Investigation, Fraud and Cybercrime</td>
</tr>
<tr>
<td>IFA1905H</td>
<td>Fraud Prevention, Risk Assessment and Investigation, Data Analytics and Security</td>
</tr>
</tbody>
</table>

Year 1: Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA1901H</td>
<td>Forensic Accounting Professional and Practice Issues</td>
</tr>
<tr>
<td>IFA1906H</td>
<td>Money Laundering, Asset Tracing and Recovery, and International Aspects of Fraud</td>
</tr>
</tbody>
</table>

Year 1: Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA1907H</td>
<td>Legal and Legal Process Issues for Forensic Accountants</td>
</tr>
</tbody>
</table>

Year 2: Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA2900H</td>
<td>Loss Quantification</td>
</tr>
<tr>
<td>IFA2905H</td>
<td>Advanced Forensic Investigation and Psychological Aspects of White Collar Crime</td>
</tr>
</tbody>
</table>

Year 2: Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA2903H</td>
<td>Research Project on Emerging Issues/Advanced Topics</td>
</tr>
<tr>
<td>IFA2906H</td>
<td>Business Valuation, Bankruptcy and Insolvency, and Advanced Loss Quantification</td>
</tr>
</tbody>
</table>
Year 2: Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA2904H</td>
<td>Integrative Capstone</td>
</tr>
</tbody>
</table>

Program Length

6 sessions part-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

6 years part-time

MFAcc Program (Eight-Month Advanced-Standing Option)

Admissions have been administratively suspended.

Minimum Admission Requirements

- Only applicants who graduated from the University of Toronto’s graduate Diploma in Investigative & Forensic Accounting (DIFA) program are eligible to apply. Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation's additional admission requirements stated below.
- Submission of an official MFAcc application via the SGS online application system.
- Two letters of reference.

Program Requirements

- **Coursework.** Students must successfully complete 2.0 full-course equivalents (FCEs) in required courses as follows:
  - 0.5 FCE: IFA1905H involves weekly online sessions, beginning in January for nine weeks
  - 0.5 FCE: IFA1906H involves weekly online sessions, beginning in March for nine weeks
  - 0.5 FCE: IFA2905H involves weekly online and residency sessions, beginning in May*
  - 0.5 FCE: IFA2906H involves weekly online and residency sessions, beginning in June*

*Involves an intensive, mandatory six-day in-residence session, held in August at the University of Toronto Mississauga.

Management & Innovation: Forensic Accounting MFAcc Courses

Required Courses

Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA1900H</td>
<td>Forensic Accounting and Investigation, Fraud and Cybercrime</td>
</tr>
<tr>
<td>IFA1901H</td>
<td>Forensic Accounting Professional and Practice Issues</td>
</tr>
<tr>
<td>IFA1905H</td>
<td>Fraud Prevention, Risk Assessment and Investigation, Data Analytics and Security</td>
</tr>
<tr>
<td>IFA1906H</td>
<td>Money Laundering, Asset Tracing and Recovery, and International Aspects of Fraud</td>
</tr>
<tr>
<td>IFA1907H</td>
<td>Legal and Legal Process Issues for Forensic Accountants</td>
</tr>
</tbody>
</table>

Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFA2900H</td>
<td>Loss Quantification</td>
</tr>
<tr>
<td>IFA2903H</td>
<td>Research Project on Emerging Issues/Advanced Topics</td>
</tr>
<tr>
<td>IFA2904H</td>
<td>Integrative Capstone</td>
</tr>
<tr>
<td>IFA2905H</td>
<td>Advanced Forensic Investigation and Psychological Aspects of White Collar Crime</td>
</tr>
<tr>
<td>IFA2906H</td>
<td>Business Valuation, Bankruptcy and Insolvency, and Advanced Loss Quantification</td>
</tr>
</tbody>
</table>

Management & Innovation: Management & Professional Accounting MMPA

Master of Management & Professional Accounting

Program Description

The Master of Management & Professional Accounting (MMPA) program is designed to educate future leaders of the accounting profession at the master’s level in management and at the professional level in accounting and related subjects. The curriculum is organized to provide an excellent understanding of:

- the challenges, functions, and needs of management;
- accounting, finance, auditing, and tax;
- essential professional subjects;
- management skills; and
- professional capabilities.
Students from any undergraduate background may apply. The MMPA is offered as a 27-month program, a 24-month advanced-standing option, and a 12-month advanced-standing option.

### MMPA Program (27-Month)

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation’s additional admission requirements stated below.
- An appropriate bachelor's degree with a standing equivalent to at least a University of Toronto mid-B.
- Satisfactory Graduate Management Admission Test (GMAT) score. Note: the GMAT requirement will be waived for applicants who meet the following criteria:
  - have studied for four years at a North American university and graduated with a four-year degree, or
  - have graduated from one of the following programs: the University of Toronto Mississauga’s BCom (Accounting specialist), the Rotman School’s BCom (Accounting specialist), or the University of Toronto Scarborough’s BBA (specialist in Management and Accounting).
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must also demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

#### Program Requirements

The program runs for 27 months covering seven sessions of full-time study.

- **Coursework.** Students must successfully complete a total of 18.0 full-course equivalents (FCEs) in required courses, as listed below.
- **Co-op work placements.** Students will also complete two co-op work placements (MGT1090H and MGT2090H) in accounting or finance-related areas.

#### Required Course List

Notations for all courses are indicated in parentheses following the course code and are determined as follows:

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>CR/NCR (Credit/No Credit)</td>
</tr>
<tr>
<td>1</td>
<td>one module</td>
</tr>
<tr>
<td>2</td>
<td>two modules</td>
</tr>
<tr>
<td>3</td>
<td>three modules</td>
</tr>
</tbody>
</table>

One module equals five weeks with three contact hours per week. One module equals 0.25 FCE.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT1090H(0)</td>
<td>Accounting Work-Term Course I</td>
</tr>
<tr>
<td>MGT1160H(1)</td>
<td>Communications</td>
</tr>
<tr>
<td>MGT1181H(1)</td>
<td>Introduction to Integration and Professional Decision Making</td>
</tr>
<tr>
<td>MGT1202H(2)</td>
<td>Ethics and Governance</td>
</tr>
<tr>
<td>MGT1210H(2)</td>
<td>Managerial Economics</td>
</tr>
<tr>
<td>MGT1211H(2)</td>
<td>Economic Environment of Business</td>
</tr>
<tr>
<td>MGT1221H(2)</td>
<td>Financial Accounting I</td>
</tr>
<tr>
<td>MGT1222H(2)</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>MGT1241H(2)</td>
<td>Operations Management</td>
</tr>
<tr>
<td>MGT1250H(2)</td>
<td>Marketing</td>
</tr>
<tr>
<td>MGT1272H(2)</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>MGT1301H(3)</td>
<td>Fundamentals of Strategic Management</td>
</tr>
<tr>
<td>MGT1323H(3)</td>
<td>Auditing and Reporting</td>
</tr>
<tr>
<td>MGT1330H(3)</td>
<td>Business Finance</td>
</tr>
<tr>
<td>MGT1362H(3)</td>
<td>Managing People in Organizations</td>
</tr>
<tr>
<td>MGT1382H(3)</td>
<td>Statistics for Management</td>
</tr>
<tr>
<td>MGT2004H(2)</td>
<td>Advanced Concepts in Strategic Management</td>
</tr>
<tr>
<td>MGT2014H(2)</td>
<td>The Legal Environment of Professions and Corporations</td>
</tr>
<tr>
<td>MGT2090H(0)</td>
<td>Accounting Work-Term Course II</td>
</tr>
<tr>
<td>MGT2200H(1)</td>
<td>Government and Not-for-Profit Accounting, Reporting, and Control</td>
</tr>
<tr>
<td>MGT2205H(3)</td>
<td>Advanced Financial Accounting</td>
</tr>
<tr>
<td>MGT2206H(3)</td>
<td>Taxation I</td>
</tr>
<tr>
<td>MGT2207H(3)</td>
<td>Taxation II</td>
</tr>
<tr>
<td>MGT2224H(2)</td>
<td>Computer Auditing</td>
</tr>
<tr>
<td>MGT2225H(2)</td>
<td>Advanced Auditing Topics</td>
</tr>
<tr>
<td>MGT2250H(3)</td>
<td>Financial Reporting I</td>
</tr>
<tr>
<td>MGT2251H(3)</td>
<td>Financial Reporting II</td>
</tr>
<tr>
<td>MGT2252H(3)</td>
<td>Financial Reporting 2</td>
</tr>
<tr>
<td>MGT2260H(2)</td>
<td>Management Control</td>
</tr>
<tr>
<td>MGT2261H(2)</td>
<td>Advanced Management Accounting</td>
</tr>
<tr>
<td>MGT2280H(2)</td>
<td>Accounting Theory and Research</td>
</tr>
<tr>
<td>MGT2281H(1)</td>
<td>Mergers, Acquisitions, and Valuations</td>
</tr>
<tr>
<td>MGT2282H(1)</td>
<td>Integration and Professional Decision Making Initiatives I</td>
</tr>
<tr>
<td>MGT2283H(1)</td>
<td>Integration and Professional Decision Making Initiatives II</td>
</tr>
</tbody>
</table>
Program Requirements

The program runs for 24 months, covering six sessions of full-time study, as follows:


- **Co-op work placements.** Two co-op work placements (MGT1090H and MGT2090H) in accounting or finance-related areas.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

MMPA Program (12-Month Advanced-Standing Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation's additional admission requirements stated below.

- An appropriate bachelor's degree with a standing equivalent to a University of Toronto B+.

- Satisfactory Graduate Management Admission Test (GMAT) score. Note: the GMAT requirement will be waived for applicants who meet the following criteria:
  - have studied for four years at a North American university and graduated with a four-year degree, or
  - have graduated from one of the following programs: the University of Toronto Mississauga's BCom (Accounting specialist), the Rotman School's BCom (Accounting specialist), or the University of Toronto Scarborough's BBA (specialist in Management and Accounting).

- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must also demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

- Applicants from a BCom (Accounting specialist) program, with a CGPA of B+ or higher, who have previously completed MGT1210H, MGT1211H, MGT1221H, MGT1222H, MGT1250H, and MGT1382H, or equivalent, with a grade of B- or better, may be eligible for admission to the 24-month option.
Applicants to the 12-month option must have completed the courses listed while in a program accredited by the Chartered Professional Accountants of Canada.

Program Requirements

The program runs for 12 months, covering three sessions of full-time study, as follows:

- **Coursework.** Students must successfully complete a total of 6.5 full-course equivalents (FCEs) in required courses as follows: MGT1160H, MGT1181H, MGT1202H, MGT1241H, MGT1250H, MGT1301H, MGT1362H, MGT2004H, MGT2200H, MGT2208H, MGT2280H, MGT2281H, MGT2282H, MGT2283H, MGT2284H, MGT2285H, and MGT2286H.
- **Co-op work placement.** One co-op work placement (MGT2090H) in accounting or finance-related areas taken in the Winter session.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years

Management & Innovation: Management of Innovation MMI

Master of Management of Innovation

Program Description

The Master of Management of Innovation (MMI) program is designed for students with a background in science and engineering. It is an accelerated 12-month professional degree for individuals pursuing management careers in technology-focused organizations. The MMI curriculum provides a strong foundation in economic analysis, technology management, business strategy, finance, accounting, marketing, and policy. The required academic nine core courses focus on management and economics, and students select three electives tailored to their interests and goals. A four-month mandatory internship requirement allows students to gain valuable, real-world work experience and an opportunity to demonstrate the key competencies they learn in the MMI program.

The program is a full-time, course-based master's degree that starts in September each year.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation's additional admission requirements stated below.

Program Requirements

- Bachelor's degree in sciences or engineering or equivalent from a recognized university. Minimum overall average grade of B+ over the last two years of full-time academic study.
- Prerequisites or their equivalents are set by the MMI program.
- Resumé/curriculum vitae (CV), two pages maximum.
- Letter of intent outlining the applicant's interest in Management and Innovation, one page (500 words).
- Two academic letters of reference must be submitted by the applicant (or at least one academic and one professional reference). One reference must be provided directly from a faculty member familiar with the applicant's work and who holds an appointment in the program where the applicant most recently graduated.
- Applicants who obtained a degree outside North America must submit a competitive GMAT or GRE (General) examination result to be sent to the department.
- Attend an interview where fit, problem-solving capabilities, and communication skills are assessed.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Management & Innovation: Management of Innovation MMI Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMI1010H</td>
<td>Prices and Markets</td>
</tr>
<tr>
<td>MMI1020H</td>
<td>Introduction to Big Data Analysis</td>
</tr>
<tr>
<td>MMI1030H</td>
<td>Marketing Science</td>
</tr>
<tr>
<td>MMI1040H</td>
<td>Accounting</td>
</tr>
<tr>
<td>MMI1050H</td>
<td>Negotiations</td>
</tr>
<tr>
<td>MMI1060H</td>
<td>Finance</td>
</tr>
<tr>
<td>MMI1070H</td>
<td>Economics of Business Strategy</td>
</tr>
<tr>
<td>MMI1080H</td>
<td>Management of Technology</td>
</tr>
</tbody>
</table>
Students are encouraged to select electives that allow them to focus on their individual areas of interest. Students are free to choose from all graduate courses across all disciplines at the University of Toronto including the MMI elective. All selections are subject to approval in advance by the Program Director.

### Management & Innovation: Sustainability Management MScSM

**Master of Science in Sustainability Management**

**Program Description**

The Master of Science in Sustainability Management (MScSM) is an interdisciplinary, course-based professional program. The program provides education that integrates knowledge from management, social, and natural sciences to address sustainability issues. The MScSM provides a strong foundation in sustainability management while offering an opportunity to specialize in a management or science concentration. The program is designed for students from diverse educational backgrounds such as management, social science, natural science, and engineering. The program was developed in consultation with leaders and prospective employers in business, non-profit, research, and government organizations.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation's additional admission requirements stated below.
- An appropriate undergraduate degree from a recognized university in any area of natural science, social science, management, and engineering or any management, environment, or natural resource-driven background with a standing equivalent to at least a mid-B in the final year of the program.
- Successful completion of an undergraduate statistics or mathematics course (0.5 full-course equivalent [FCE] or equivalent).
- Resumé/curriculum vitae (CV).
- Letter of intent outlining the applicant's interest in sustainability issues (750 words).

### Program Requirements

#### Management Concentration

- **Coursework.** Students must complete a total of 9.0 FCEs as follows:
  - 6.5 FCEs (11 required courses) including:
    - SSM1090H Capstone Course
    - SSM1100Y Research Paper I or SSM1101Y Research Paper II
  - 2.5 FCEs (5 elective courses) selected by chosen concentration as follows:
    - 2.0 FCEs from the Management elective courses
    - 0.5 FCE from the Science elective courses.
- **Internship.** A summer internship placement (two to four months).

#### Science Concentration

- **Coursework.** Students must complete a total of 9.0 FCEs as follows:
  - 6.5 FCEs (11 required courses) including:
    - SSM1090H Capstone Course
    - SSM1100Y Research Paper I or SSM1101Y Research Paper II
  - 2.5 FCEs (5 elective courses) selected by chosen concentration as follows:
    - 2.0 FCEs from the Science elective courses
    - 0.5 FCE from the Management elective courses.
- **Internship.** A summer internship placement (two to four months).

### Program Path

#### Year 1: Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1010Y</td>
<td>Principles of Sustainability Management</td>
</tr>
<tr>
<td>SSM1020H</td>
<td>Decision Making for Sustainability Management</td>
</tr>
<tr>
<td>SSM1050H</td>
<td>Ecosystem Science</td>
</tr>
<tr>
<td>SSM1060H</td>
<td>Managing Sustainable Organizations</td>
</tr>
</tbody>
</table>

#### Year 1: Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1030H</td>
<td>Environmental Science</td>
</tr>
<tr>
<td>SSM1040H</td>
<td>Managerial Economics for Sustainability Management</td>
</tr>
<tr>
<td>SSM1070H</td>
<td>Sustainability Law and Policy</td>
</tr>
<tr>
<td>SSM1080H</td>
<td>Strategies for Sustainability Management</td>
</tr>
<tr>
<td>SSM1120H</td>
<td>Social Dimensions of Sustainability</td>
</tr>
</tbody>
</table>
### Year 1: Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1110H</td>
<td>Sustainability Management Internship</td>
</tr>
</tbody>
</table>

### Year 2: Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1100Y</td>
<td>Research Paper I</td>
</tr>
<tr>
<td>SSM1101Y</td>
<td>Research Paper II</td>
</tr>
<tr>
<td></td>
<td>Plus 1.5 FCE elective</td>
</tr>
</tbody>
</table>

### Year 2: Winter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1090H</td>
<td>Capstone Course — Sustainable Enterprise</td>
</tr>
<tr>
<td>SSM1100Y</td>
<td>Research Paper I</td>
</tr>
<tr>
<td>SSM1101Y</td>
<td>Research Paper II</td>
</tr>
<tr>
<td></td>
<td>Plus 1.0 FCE elective</td>
</tr>
</tbody>
</table>

### Elective Courses

Course selections need to be approved in advance by the Program Director.

### Science Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EES1117H</td>
<td>Climate Change and Impact Assessment</td>
</tr>
<tr>
<td>EES1125H</td>
<td>Contaminated Site Remediation</td>
</tr>
<tr>
<td>ENV1002H</td>
<td>Environmental Policy</td>
</tr>
<tr>
<td>ENV1704H</td>
<td>Environmental Risk Analysis and Management</td>
</tr>
<tr>
<td>SSM2030H</td>
<td>Advanced Sustainability Management</td>
</tr>
<tr>
<td>SSM2050H</td>
<td>Special Topics in Sustainability</td>
</tr>
</tbody>
</table>

### Management Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EES1124H</td>
<td>Environmental Project Management</td>
</tr>
<tr>
<td>ENV1707H</td>
<td>Climate Finance</td>
</tr>
<tr>
<td>SSM2010H</td>
<td>Marketing in Sustainability Management</td>
</tr>
<tr>
<td>SSM2020H</td>
<td>Sustainability Ethics</td>
</tr>
<tr>
<td>SSM2040H</td>
<td>Applied Sustainability Management</td>
</tr>
<tr>
<td>SSM2050H</td>
<td>Special Topics in Sustainability</td>
</tr>
</tbody>
</table>

### Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

### Time Limit

3 years full-time

### Management & Innovation: Sustainability Management MScSM Courses

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1010Y</td>
<td>Principles of Sustainability Management</td>
</tr>
<tr>
<td>SSM1020H</td>
<td>Decision Making for Sustainability Management</td>
</tr>
<tr>
<td>SSM1030H</td>
<td>Environmental Science</td>
</tr>
<tr>
<td>SSM1040H</td>
<td>Managerial Economics for Sustainability Management</td>
</tr>
<tr>
<td>SSM1050H</td>
<td>Ecosystem Science</td>
</tr>
<tr>
<td>SSM1060H</td>
<td>Managing Sustainable Organizations</td>
</tr>
</tbody>
</table>

### Management & Innovation: Urban Innovation MUI

#### Master of Urban Innovation

### Program Description

The Master of Urban Innovation (MUI) is a full-time, professional program that will encompass studies in urban economic development, community capacity building, innovation management, local and regional governance, urban sustainability, and real estate development for innovation.
The MUI will complement the suite of programs in management, innovation, and sustainability currently offered in the Institute for Management & Innovation and will build on the strengths of other key academic units at UTM, including the Departments of Geography, Geomatics and Environment; Economics; Political Science; and the Institute of Communication, Culture, Information and Technology.

The objective of the MUI program is to respond to the growing job opportunities that exist for professionals trained in the fields of urban economic development and innovation through a cross-disciplinary approach. Upon graduation, MUI students will have acquired the analytical tools to enable them to produce effective economic development policies and plans, including a detailed knowledge of strategic management techniques, the role of real estate markets in local economic development, and critical tools for financial analysis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute for Management & Innovation’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in social sciences, management/commerce, or a related field such as architecture or civil engineering, with a standing equivalent to a mid B in the final year of the program.
- Successful completion of 0.5 full-course equivalent (FCE) in an undergraduate statistics course.
- Letter of intent.
- Three letters of reference.
- A writing sample.

Program Requirements

- Students must complete a total of 9.5 FCEs as follows:
  - 4.5 FCEs from core courses (MUI1010H, MUI1020H, MUI1030H, MUI1040H, MUI1050H, MUI1060H, MUI1075H, MUI1080H, MUI1090H)
  - 0.5 FCE summer internship (MUI1100H)
  - 1.0 FCE capstone group project (MUI2095Y)
  - 3.5 FCEs chosen from the elective course list below.

Students are also strongly encouraged to select other electives not included in the list below. Course selections must be approved in advance by the program.

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

Management & Innovation: Urban Innovation MUI Courses

Required Core Courses

Students will complete 6.0 required full-course equivalents (FCEs).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUI1010H</td>
<td>Introduction to Management of Urban Innovation</td>
</tr>
<tr>
<td>MUI1020H</td>
<td>Civic Engagement and Economic Development</td>
</tr>
<tr>
<td>MUI1030H</td>
<td>Urban and Regional Economic Development Theory</td>
</tr>
<tr>
<td>MUI1040H</td>
<td>Socially Sustainable Cities: Theory, Policy, and Practice</td>
</tr>
<tr>
<td>MUI1050H</td>
<td>Urban Politics</td>
</tr>
<tr>
<td>MUI1060H</td>
<td>Local and Regional Government: Management and Policymaking</td>
</tr>
<tr>
<td>MUI1075H</td>
<td>Digital Cities</td>
</tr>
<tr>
<td>MUI1080H</td>
<td>Economic Development Planning</td>
</tr>
<tr>
<td>MUI1090H</td>
<td>Technology, Strategy, Policy</td>
</tr>
<tr>
<td>MUI1100H</td>
<td>Summer Internship</td>
</tr>
<tr>
<td>MUI2095Y</td>
<td>Capstone Course</td>
</tr>
</tbody>
</table>

Elective Courses

Students will complete 3.5 elective FCEs.

MUI students can take any of the following courses as part of fulfilling the program’s elective requirement. Students are also strongly encouraged to select other electives not included in the list below, that will align well with their career goals and interests, subject to the pre-approval of the program. It is recommended that students consult with the program on their elective course options during Year 1. Available course offerings are subject to change.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGR1610H</td>
<td>Geography of Finance and Financial Crisis</td>
</tr>
<tr>
<td>GLA2018H</td>
<td>Innovation and the City</td>
</tr>
<tr>
<td>IMI2001H</td>
<td>Special Topics in Management and Innovation</td>
</tr>
<tr>
<td>JPG1512H</td>
<td>Place, Politics, and the Urban</td>
</tr>
<tr>
<td>JPG1558H</td>
<td>The History and Geography of Cycles and Cycling</td>
</tr>
<tr>
<td>MUI2000H</td>
<td>Special Topics in Urban Innovation</td>
</tr>
<tr>
<td>MUI2010H</td>
<td>Sectoral Analysis</td>
</tr>
<tr>
<td>MUI2020H</td>
<td>Microeconomics of Competitiveness</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>MUI2030H</td>
<td>Planning for Jobs: Labour Market Transformations and Employment in 21st Century Cities</td>
</tr>
<tr>
<td>MUI2040H</td>
<td>Real Estate Development</td>
</tr>
<tr>
<td>MUI2050H</td>
<td>The Economics of Cities and Regions: Productivity, Technology, and Jobs</td>
</tr>
<tr>
<td>MUI2055H</td>
<td>Cities, Industry, and the Environment</td>
</tr>
<tr>
<td>MUI2060H</td>
<td>Comparative Urban Politics</td>
</tr>
<tr>
<td>MUI2070H</td>
<td>Planning and Governing the Metropolis</td>
</tr>
<tr>
<td>MUI2080H</td>
<td>Intelligent Communities/Smart Cities</td>
</tr>
<tr>
<td>MUI2090H</td>
<td>Public Finance in Canadian Cities</td>
</tr>
<tr>
<td>POL2394H</td>
<td>Innovation and Knowledge Transfer in City Regions</td>
</tr>
<tr>
<td>RSM2132H</td>
<td>Business and the City</td>
</tr>
<tr>
<td>SSM2010H</td>
<td>Marketing in Sustainability Management</td>
</tr>
<tr>
<td>SSM2020H</td>
<td>Sustainability Ethics</td>
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</tr>
</tbody>
</table>
Management, Rotman School of Management

Management, Rotman School: Introduction

Faculty Affiliation

Management, Rotman School of Management

Degree Programs

Management

MBA

- Full-Time Master of Business Administration;
  - Emphases (full-time and extended full-time MBA):
    - Data Analytics and Modeling;
    - Finance;
    - Global Management;
    - Innovation, Entrepreneurship, and Business Design;
    - Leadership;
    - Marketing;
    - Strategy;
    - Sustainability and Society
- Extended Full-Time Master of Business Administration (Morning/Evening);
- Executive Master of Business Administration
  - Fields:
    - Global Executive Master of Business Administration (GEMBA): the GEMBA is a field that is only offered as part of the dual degree
      - Dual Degree Program: Global Executive Master of Business Administration (University of Toronto) / Global Executive Master of Business Administration (Universita Commerciale Luigi Bocconi)
    - Global Executive Master of Business Administration for Healthcare and the Life Sciences (GEMBA-HLS)

Finance

MF

Financial Risk Management

MFRM

Management Analytics

MMA

Combined Degree Programs

Medicine, Doctor of / Management, Full-Time Option, MBA
STG, Engineering, BASc / Management, MBA
STG, Law, Juris Doctor / Management, MBA
STG, Management, MBA / MGA
STG, Pharmacy, Doctor of / Management, MBA

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Contemporary East and Southeast Asian Studies
  - Management, MBA
- Environmental Studies
  - Management, MBA

Diploma Programs

Professional Accounting

GDipPA

Overview

The Rotman School of Management is a catalyst for transformative learning, insights, and public engagement, bringing together diverse views and initiatives around a defining purpose: to create value for business and society.

The School is located in Canada's financial, commercial, and cultural capital, and students are trained just blocks from Bay Street, Canada's business centre. The School takes full advantage of its strategic location by drawing on a rich pool of business leaders as teachers, mentors, and speakers. The School's strong academic reputation and close ties to the business community give graduates an edge in their search for a fulfilling career.

In the classroom, top-ranked faculty provide access to the latest research before it filters into consulting firms and major corporations. Learning at Rotman goes deep — combining a rigorous, model-based approach to decision making with a strong emphasis on personal development. The School attracts people from a wide range of countries and backgrounds and provides them with a learning environment that is safe, welcoming, open, inclusive, and respectful to all.

Contact and Address

Rotman School of Management

Web

General
Full-Time MBA
Morning/Evening MBA
Executive MBA
Global Executive MBA
Global Executive MBA for Healthcare and the Life Sciences
Master of Finance
Master of Financial Risk Management
Master of Management Analytics
Graduate Diploma in Professional Accounting

Telephone

MBA: (416) 978-3499
Morning/Evening MBA: (416) 946-5916
Executive MBA: (416) 946-3022
Global Executive MBA: (416) 946-3022
Global Executive MBA for Healthcare and the Life Sciences: (416) 946-3022
Master of Finance: (416) 946-3638
Master of Financial Risk Management: (416) 978-2230
Master of Management Analytics: (416) 946-3638
Graduate Diploma in Professional Accounting: (416) 978-2230

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University of Toronto
105 St. George Street
Toronto, Ontario M5S 3E6
Canada

Management, Rotman School of: Graduate Faculty

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Baron, Opher - BSc, MBA, PhD (Academic Director, Master of Management Analytics Program)
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Baum, Joel - BA, MBA, PhD
Blum, Bernardo - BA, MA, MA, PhD
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Bowers, Anne - BA, MBA, PhD
Bryan, Kevin - BA, MS, MS, PhD
Callen, Jeffrey - BM, MBA, DPhil
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Celerier, Claire - MSc, PhD
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Cunningham, William - BA, MPH, MS, MA, PhD
Dart, Beatrix - MIST, MEng, PhD (Academic Director, Experiential and Global Learning)
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Kaplan, Sarah - BA, MA, PhD
Krashinsky, Harry - MA, PhD
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Lederman, Mara - BA, PhD
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Lee, Spike - MS, PhD
Leonardelli, Geoffrey - BA, MA, PhD
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Mahrt-Smith, Jan - BSc, PhD (Academic Director, Global Executive MBA Program)
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McEvily, Bill - BS, PhD
McGahan, Anita - BA, MA, MBA, PhD
Mehta, Nitin - BTech, MS, MS, PhD
Milner, Joseph - BSc, MS, PhD (Vice-Dean, MBA Programs)
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Mohanram, Partha Sarathy - BTech, MBA, PhD
Moldoveanu, Miheana - BSc, MSc, DBA
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Ornthanalai, Chay - BEng, PhD
Reuber, Becky - BA, MSc, PhD
Richardson, Gordon - BA, MBA, PhD, CA
Rotenberg, Wendy - BA, MBA, PhD
Rotundo, Maria - BA, MA, PhD
Rowley, Timothy - BA, MBA, PhD (Academic Director, Morning and Evening MBA; Executive MBA Programs)
Ryall, Michael - BS, MBA, PhD
Silverman, Brian - AB, BA, MA, PhD
Simutin, Mikhail - BA, PhD
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Soman, Dilip - BE, MBA, PhD
Strange, William - BA, MA, PhD
Tilcsik, András - AB, AM, PhD
Treffler, Daniel - BA, MPH, PhD
Tsai, Claire - BBA, MBA, PhD (Director, Faculty Recruiting)
Wang, Kevin - BS, MA, PhD
Webb, Ryan - BA, MA, PhD
Whyte, Glen - LLB, MA, MPH, MBA, PhD
Wong, Franco - BA, MA, PhD
Xie, Jia Lin - BA, MBA, PhD
Xin, Baohua - PhD
Yang, Liyan - BA, MA, PhD
Zhang, Ping - BA, Macct, MA, PhD
Zhong, Chenbo - BA, MA, PhD (Acting Academic Director, PhD Program)
Members Emeriti

Amburgey, Terry  -  BS, MA, PhD 
Berman, Oded  -  BA, PhD 
Brean, Donald J.S.  -  BA, MBA, MSc, PhD 
D'Cruz, Joseph  -  BA, MBA, PhD 
Dobson, Wendy  -  BScN, MPA, SM, PhD 
Dungan, D. Peter  -  BA, MA, PhD 
Dunne, David  -  BComm, DPhil 
Fisher, James  -  BA, MBA 
Fleck, James  -  BA, DBA 
Halpern, Paul  -  BComm, MBA, PhD 
Horstmann, Ignatius  -  BA, PhD 
Hyatt, Douglas  -  BA, MA, PhD 
Kirzner, Eric  -  BA, MBA 
Kitunen, Joan  -  BBM, CA, CPA 
Kolody, Harvey  -  BEng, MBA, PhD 
Losell, Donna  -  BA, MBA 
Martin, Roger  -  AB, MBA 
Menzefricke, Ulrich  -  MBA, DBA 
Mitchell, Andrew  -  BA, PhD 
Ondrack, Daniel  -  BComm, MBA, PhD 
Oxley, Joanne  -  BSc, MA, MBA, PhD 
Pauly, Peter  -  MA, PhD 
Verma, Anil  -  BTech, MBA, PhD 
White, Alan  -  BEng, MBA, PhD 
Wilson, Thomas  -  BA, AM, PhD 

Richards, Dan  -  MBA 
Roman, Matthew  -  BCom 
Roshanaei, Vahid  -  DE 
Ruttan, Rachel  -  BA, MS, PhD 
Schneider, Manfred  -  BCom, JD, MBA, CA, CPA 
Shin, Jee-Eun  -  BA, MS 
Stapleton, Maureen  -  MBA 
Stojanovic, Dragan  -  BComm, MEd 
Strejcek, Brendan  -  AB, MS, DBA 
Tan, Eugene  -  BS, BS, PhD 
Tassonne, Ralph  -  BComm, MEd 
Tolias, Fotini  -  BComm, MBA 
Trippen, Gerhard  -  MCS, PhD 
Volpe, Luciano  -  MBA 
Wiecek, Irene  -  BComm, CA, CPA 
Xu, Ting  -  MEng 
Yi, Irene  -  BBA, PhD 
Zhong, Zachary  -  PhD 
Zuliani, Elisa  -  BBM, CA (Academic Director, Graduate Diploma in Professional Accounting Program)

Management, Rotman School: Management MBA Full-Time

Full-Time MBA Program

Program Description

The Full-Time Rotman MBA is an intense program that combines 16 months of academic study with a 4-month opportunity for a paid internship. The program begins with a core curriculum that introduces Rotman's unique problem-solving and creative methodology with the fundamental disciplines of business. Students have the opportunity to customize their MBA experience by choosing to complete an emphasis in one of eight areas, develop a broader skill set with over 90 elective courses, and accelerate their career through the experiential learning component of the Flexible Internship program. As the practice of management evolves over time, so do the elective courses and areas that Rotman offers in any given year.

Students are required to complete the course Applied Management: Placement in conjunction with a work placement which may be done in the Summer, Fall, or Winter sessions. Depending on their academic area of study and career objectives, students will be guided on the best work term option to secure a placement with an employer. Throughout their work placement, students will benefit from enhanced communication with their host employers, tracking of project deliverables, and feedback from faculty supervisors.

Rotman offers three core strategic areas — an innovative curriculum, tailored career services, and the Self-Development Lab — to develop the skills and experiences students need to accelerate in their careers as high-value decision makers and business leaders. Whether their aim is to make a career switch, accelerate their current career, or start their own business, the Rotman MBA enables students to reach their professional and personal goals.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university.
- Applicants must obtain a satisfactory score on the Graduate Management Admissions Test (GMAT) or the Graduate Record Examination (GRE; General Test). Test results are valid for five years.
- If required, completion of the following English proficiency tests:
  - Test of English as a Foreign Language (TOEFL) Internet-based format: overall score of 100 with a minimum of 22 on the writing and speaking sections.
  - International English Language Testing System (IELTS) Academic: score of 7.0 with minimum 6.5 required for each component.
- A minimum of two years of full-time work experience is strongly recommended.
- Two professional references.
- The Full-Time MBA program starts annually in August. Applicants for the Full-Time program are encouraged to apply as per the deadline dates (beginning in October with a final deadline in May).
- Exemptions from the GMAT and GRE requirement are granted to applicants who have passed at least the Level II examination of the Chartered Financial Analyst (CFA) designation.

Program Requirements

- Within this 20-month program (two academic years), students must complete a total of 11.3 full-course equivalents (FCEs) as follows:
  - Students must complete a structured sequence of required courses at the 1000 level. Each course has a weighting of one, two, or three modules. Three-module courses are equivalent to three credit hours. No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program.
  - Complete 0.5 FCE:
    - A full-time internship work placement and RSM1380H Applied Management: Placement, which includes in-class lectures and coursework assessments; or
    - If they are not taking an internship, RSM1381H Applied Management: Independent Study.
  - Complete 6.5 elective FCEs at the 2000 level (equivalent to thirteen 2000-level courses).
  - With the permission of the Academic Director, students may take up to four 2000-level courses from another graduate unit or participate in an international exchange program approved by the Rotman School of Management or the University of Toronto. In all cases, courses selected are subject to the approval of the Academic Director.
  - Students can take two experiential courses, as designated by a course number RSM27XX, for credit (1.0 FCE). For students who take more than two experiential courses, these would not be counted towards the MBA degree requirements. Students should be aware that the following restrictions apply:
    - Students can only take RSM2709H Global Practicum for credit one time.
    - Students can only take one from the following for credit: RSM2702H, RSM2703H, or RSM2760H.
    - Students in combined degree programs with other schools or Faculties at the University of Toronto can take one experiential course for credit (0.5 FCE), unless exemption is granted.
    - Students taking part in an exchange with one of the partner schools for four half credits or more cannot take the experiential learning courses for credit. Students taking part in an exchange with one of the partner schools for three half credits or less can take one experiential learning course (0.5 FCE) for credit.
  - Students have the option of completing an emphasis in Data Analytics and Modeling; Finance; Global Management; Innovation, Entrepreneurship, and Business Design; Leadership; Marketing; Strategy; or Sustainability and Society as part of their degree program. Please see details in the Management MBA Emphases section.

Program Length

5 sessions (2 years) full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years

Management, Rotman School: Management MBA Emphases

An emphasis is an identified set and sequence of courses that is completed on an optional basis in partial fulfillment of the requirements for the MBA degree. Emphases will be noted on the student official University transcript and, as such, will be useful for signalling skills and knowledge to potential employers. They will also provide guidance to upper-year students on the courses that define a particular discipline, as well as a community of study for those students taking several courses together.

Emphasis: Data Analytics and Modeling (MBA)

MBA students (Full-Time or Extended Full-Time) must successfully complete five half courses (2.5 full-course equivalents [FCEs]) from the following lists, with at least two half courses (1.0 FCE) from the list of main courses.

Main Courses

RSM2129H, RSM2401H, RSM2408H, RSM2409H, RSM2506H.

Supplemental Courses

RSM2125H, RSM2209H, RSM2215H, RSM2303H, RSM2405H, RSM2513H, RSM2521H.
Emphasis: Finance (MBA)
MBA students (Full-Time or Extended Full-Time) must successfully complete five half courses (2.5 full-course equivalents [FCEs]) from the following lists, with at least two half courses (1.0 FCE) from the list of main courses.

Main Courses
RSM2204H, RSM2209H, RSM2212H, RSM2300H, RSM2302H, RSM2306H, RSM2309H.

Supplemental Courses

Emphasis: Global Management (MBA)
MBA students (Full-Time or Extended Full-Time) must successfully complete five half courses (2.5 full-course equivalents [FCEs]) from the following lists, with at least two half courses (1.0 FCE) from the list of main courses.

Main Courses
RSM2011H, RSM2123H, RSM2127H, RSM2701H, RSM2709H.

Supplemental Courses
RSM2018H, RSM2305H, RSM2612H, RSM2616H.

Emphasis: Innovation, Entrepreneurship, and Business Design (MBA)
MBA students (Full-Time or Extended Full-Time) must successfully complete five half courses (2.5 full-course equivalents [FCEs]) from the following lists, with at least one half course (0.5FCE) from the list of main courses.

Main Courses
RSM2008H, RSM2012H, RSM2523H.

Supplemental Courses

Emphasis: Leadership (MBA)
MBA students (Full-Time or Extended Full-Time) must successfully complete five half courses (2.5 full-course equivalents [FCEs]) from the following lists, with at least two half courses (1.0 FCE) from the list of main courses.

Main Courses
RSM2014H, RSM2081H, RSM2313H, RSM2615H.
**Supplemental Courses**

RSM2019H, RSM2122H, RSM2640H, RSM2702H, RSM2703H, RSM2706H, ENV1707H.

**Management, Rotman School: Management MBA Full-Time Courses**

**Required Courses to be Completed in Year 1**

Weighting for 1000-level courses is determined by the second digit of the four-digit course number as follows:

<table>
<thead>
<tr>
<th>Second Digit</th>
<th>Course Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>two credit hours</td>
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<tr>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RSM1165H</td>
<td>Leveraging Diverse Teams (Credit/No Credit)</td>
</tr>
<tr>
<td>RSM1201H</td>
<td>Foundations of Strategic Management</td>
</tr>
<tr>
<td>RSM1210H</td>
<td>Managerial Economics</td>
</tr>
<tr>
<td>RSM1211H</td>
<td>Economic Environment of Business</td>
</tr>
<tr>
<td>RSM1215H</td>
<td>Decision Making with Models and Data</td>
</tr>
<tr>
<td>RSM1220H</td>
<td>Financial Accounting and Reporting: A Global Perspective</td>
</tr>
<tr>
<td>RSM1222H</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>RSM1231H</td>
<td>Finance I: Global Markets and Valuation</td>
</tr>
<tr>
<td>RSM1232H</td>
<td>Finance II: Corporate Finance</td>
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<tr>
<td>RSM1240H</td>
<td>Operations Management</td>
</tr>
<tr>
<td>RSM1250H</td>
<td>Managing Customer Value</td>
</tr>
<tr>
<td>RSM1260H</td>
<td>Leading People in Organizations</td>
</tr>
<tr>
<td>RSM1282H</td>
<td>Statistics for Management</td>
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</table>

In addition to the above Year 1 courses, **three 2000-level elective courses** must also be taken in Year 1.

**Required Courses to be Completed After Year 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM1160H</td>
<td>Business Ethics</td>
</tr>
<tr>
<td>RSM1380H or RSM1381H</td>
<td>Applied Management: Placement or Applied Management: Independent Study</td>
</tr>
</tbody>
</table>

**Ten 2000-level elective courses**

**Elective Courses for the Full-Time and Morning/Evening MBA Programs**

Not all courses are offered every year. Consult the department each session about course offerings.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM2000H</td>
<td>Multi-disciplinary Special Topics</td>
</tr>
<tr>
<td>RSM2003H</td>
<td>Research Project</td>
</tr>
<tr>
<td>RSM2008H</td>
<td>Creative Destruction Lab Intro</td>
</tr>
<tr>
<td>RSM2011H</td>
<td>International Strategy</td>
</tr>
<tr>
<td>RSM2012H</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>RSM2013Y</td>
<td>Creative Destruction Lab Advanced (prerequisite: RSM2008H)</td>
</tr>
<tr>
<td>RSM2014H</td>
<td>Sustainability Strategy</td>
</tr>
<tr>
<td>RSM2017H</td>
<td>Pharmaceutical Strategy</td>
</tr>
<tr>
<td>RSM2018H</td>
<td>Strategy in Emerging Markets</td>
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<tr>
<td>RSM2019H</td>
<td>Corporation 360</td>
</tr>
<tr>
<td>RSM2020H</td>
<td>Health Sector Strategy and Organizations</td>
</tr>
<tr>
<td>RSM2021H</td>
<td>Corporate Strategy</td>
</tr>
<tr>
<td>RSM2023H</td>
<td>Strategic Change and Implementation</td>
</tr>
<tr>
<td>RSM2030H</td>
<td>Canadian Business History</td>
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<tr>
<td>RSM2040H</td>
<td>Special Topics in Strategy</td>
</tr>
<tr>
<td>RSM2052H</td>
<td>Management Consulting</td>
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<tr>
<td>RSM2054H</td>
<td>Technology Strategy</td>
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<tr>
<td>RSM2057H</td>
<td>Venture Capital Strategy</td>
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<tr>
<td>RSM2058H</td>
<td>Communicating Strategy</td>
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<tr>
<td>RSM2059H</td>
<td>Healthcare and Life Sciences Consulting: Field Application Project</td>
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<tr>
<td>RSM2061H</td>
<td>Strategic Networks</td>
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<tr>
<td>RSM2062H</td>
<td>Management Consulting Practicum</td>
</tr>
<tr>
<td>RSM2063H</td>
<td>Catastrophic Failure in Organizations</td>
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<tr>
<td>RSM2081H</td>
<td>Social Entrepreneurship</td>
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<tr>
<td>RSM2083H</td>
<td>Special Topics in Strategic Management</td>
</tr>
<tr>
<td>RSM2085H</td>
<td>Healthcare Innovation</td>
</tr>
<tr>
<td>RSM2087H</td>
<td>Multi-Disciplinary Special Topics</td>
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<tr>
<td>RSM2088H</td>
<td>Designing for Equality</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<td>------------------------------------------------------------</td>
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<tr>
<td>RSM2098H</td>
<td>Special Topics in Strategic Management</td>
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<tr>
<td>RSM2099H</td>
<td>Special Topics in Strategic Management</td>
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<tr>
<td>RSM2109H</td>
<td>Rotman Study Tour</td>
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<tr>
<td>RSM2113H</td>
<td>Model-Based Decision Making in Practice</td>
</tr>
<tr>
<td>RSM2122H</td>
<td>Clean Energy: Policy Context and Business Opportunities</td>
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<tr>
<td>RSM2123H</td>
<td>International Business in the World Economy</td>
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<tr>
<td>RSM2125H</td>
<td>Game Theory and Applications for Management</td>
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<td>RSM2126H</td>
<td>Real Estate Development</td>
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<td>RSM2127H</td>
<td>Economic Environment of International Business</td>
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<td>RSM2128H</td>
<td>Real Estate Economics</td>
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<td>RSM2129H</td>
<td>Forecasting Models and Econometric Methods</td>
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<td>RSM2130H</td>
<td>Real Estate Investment</td>
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<td>RSM2132H</td>
<td>Business and the City</td>
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<td>RSM2198H</td>
<td>Special Topics in Economic Analysis and Policy</td>
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<tr>
<td>RSM2199H</td>
<td>Special Topics in Economic Analysis and Policy</td>
</tr>
<tr>
<td>RSM2204H</td>
<td>Taxation and Decision-Making</td>
</tr>
<tr>
<td>RSM2209H</td>
<td>Financial Statement Analysis</td>
</tr>
<tr>
<td>RSM2210H</td>
<td>Financial Distress and Insolvency</td>
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<tr>
<td>RSM2211H</td>
<td>Business Law</td>
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<tr>
<td>RSM2212H</td>
<td>Business Analysis and Valuation</td>
</tr>
<tr>
<td>RSM2215H</td>
<td>Special Topics in Accounting</td>
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<tr>
<td>RSM2216H</td>
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<td>RSM2299H</td>
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<tr>
<td>RSM2300H</td>
<td>Corporate Financing</td>
</tr>
<tr>
<td>RSM2301H</td>
<td>Financial Management</td>
</tr>
<tr>
<td>RSM2302H</td>
<td>Security Analysis and Portfolio Management</td>
</tr>
<tr>
<td>RSM2303H</td>
<td>Risk Modelling and Financial Trading Strategies</td>
</tr>
<tr>
<td>RSM2304H</td>
<td>Financial Institutions and Capital Markets</td>
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<tr>
<td>RSM2305H</td>
<td>International Financial Management</td>
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<tr>
<td>RSM2306H</td>
<td>Options and Futures Markets</td>
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<tr>
<td>RSM2307H</td>
<td>Advanced Derivatives</td>
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<tr>
<td>RSM2308H</td>
<td>Financial Risk Management</td>
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<tr>
<td>RSM2309H</td>
<td>Mergers and Acquisitions</td>
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<tr>
<td>RSM2310H</td>
<td>Analysis and Management of Fixed Income Securities</td>
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<tr>
<td>RSM2312H</td>
<td>Value Investing</td>
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<td>RSM2313H</td>
<td>Sustainable Finance</td>
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<td>RSM2314H</td>
<td>Private Equity and Entrepreneurial Finance</td>
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<tr>
<td>RSM2315H</td>
<td>Management of Private Wealth</td>
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<tr>
<td>RSM2316H</td>
<td>Introduction to Hedge Funds and Broker Dealers</td>
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<tr>
<td>RSM2317H</td>
<td>Special Topics in Finance</td>
</tr>
<tr>
<td>RSM2318H</td>
<td>Special Topics in Finance</td>
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<td>RSM2321H</td>
<td>Special Topics in Finance</td>
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<tr>
<td>RSM2322H</td>
<td>Special Topics in Finance</td>
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<tr>
<td>RSM2326H</td>
<td>How Banks Work: Management in a New Technological Age</td>
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<td>RSM2327H</td>
<td>Islamic Finance in Canada</td>
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<tr>
<td>RSM2328H</td>
<td>Machine Learning and Financial Innovation</td>
</tr>
<tr>
<td>RSM2329H</td>
<td>Block Chain and Decentralized Finance</td>
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<td>RSM2398H</td>
<td>Special Topics in Finance</td>
</tr>
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<td>RSM2399H</td>
<td>Special Topics in Finance</td>
</tr>
<tr>
<td>RSM2401H</td>
<td>Data and Information Management for Business Analytics</td>
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<td>RSM2405H</td>
<td>Supply Chain Management</td>
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<td>RSM2406H</td>
<td>Operations Management Strategy</td>
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<td>RSM2407H</td>
<td>Services Operations Management</td>
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<tr>
<td>RSM2408H</td>
<td>Modeling and Optimization for Decision Making</td>
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<tr>
<td>RSM2409H</td>
<td>Management Analytics</td>
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<td>RSM2410H</td>
<td>Analytics and Operations Consulting</td>
</tr>
<tr>
<td>RSM2417H</td>
<td>Special Topics in Operations Management</td>
</tr>
<tr>
<td>RSM2498H</td>
<td>Special Topics in Operations Management and Statistics</td>
</tr>
<tr>
<td>RSM2499H</td>
<td>Special Topics in Operations Management and Statistics</td>
</tr>
<tr>
<td>RSM2500H</td>
<td>Marketing Strategy</td>
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<td>RSM2504H</td>
<td>Consumer Behaviour</td>
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<td>RSM2505H</td>
<td>Strategic Marketing Communications</td>
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<td>RSM2506H</td>
<td>Marketing Research</td>
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<td>RSM2508H</td>
<td>Sales Management</td>
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<td>RSM2511H</td>
<td>Fintech Marketing: Innovation in the Marketing of Financial Services</td>
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<td>RSM2512H</td>
<td>Branding</td>
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<tr>
<td>RSM2513H</td>
<td>Pricing</td>
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</tbody>
</table>
Management, Rotman School: Management MBA Extended Full-Time

Extended Full-Time MBA Program (Morning/Evening)

Program Description

The Rotman Morning/Evening MBA programs are designed for working professionals in the Greater Toronto Area. The 32-month, cohort-based format allows working professionals to continue working while studying for their MBA. Students may explore new directions, expand leadership skills, and build close ties with a lifelong network. There are two program options:

- The Morning MBA allows working professionals to complete their master’s before work — from 7:00 to 9:00 am, two mornings a week.
- The Evening MBA allows students to get a fresh perspective on real-world challenges from globally renowned faculty after work — from 6:30 to 8:30 pm, two evenings a week.

In the second half of the MBA program, students have the choice to specialize in a career path with a range of electives, including those taught during regular working hours.

Minimum Admission Requirements

- Applicants are considered under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School’s additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university.
• Applicants must obtain a satisfactory score on the Graduate Management Admissions Test (GMAT) or the Graduate Record Examination (GRE; General Test).
• A minimum of two years of full-time work experience.
• Two professional references.
• Resumé.
• Essays.
• Interview.
• If required, completion of the following English proficiency tests:
  o Test of English as a Foreign Language (TOEFL) Internet-based format: overall score of 100 with a minimum of 22 on the writing and speaking sections.
  o International English Language Testing System (IELTS) Academic: score of 7.0 with minimum 6.5 required for each component.
• The Extended Full-Time (Morning/Evening) MBA programs start annually in August. Applicants are encouraged to apply as per the deadline dates (beginning in the fall with a final deadline in June). Applicants who meet all of the criteria will be assessed by the admissions committee on the basis of grades, standardized test scores, references, essays, professional experience, and a personal interview.
• Exemptions from the GMAT and GRE requirement are granted to applicants who have passed at least the Level II examination of the Chartered Financial Analyst (CFA) designation.

Program Requirements

• This program, designed for working professionals, covers the equivalent of two academic years delivered over a 32-month period.
• Students complete requirements through either the Morning or Evening program options.
• Coursework: students must complete required and elective courses as follows:
  o Required: Students must complete a structured sequence of required courses at the 1000 level. Each course has a weighting of one, two, or three modules. Three-module courses are equivalent to three credit hours. No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program.
  o Elective: 5.0 full-course equivalents (FCEs) at the 2000 level (equivalent to ten 2000-level courses). With the permission of the Academic Director, Morning/Evening MBA Programs, students may take up to five 2000-level courses from another graduate unit or participate in an international exchange program approved by the Rotman School of Management or the University of Toronto. In all cases, courses selected are subject to the approval of the Academic Director.
• With the permission of the Academic Director, students may take up to four 2000-level courses from another graduate unit or participate in an international exchange program approved by the Rotman School of Management or the University of Toronto. In all cases, courses selected are subject to the approval of the Academic Director.
• Students can take two experiential courses, as designated by a course number RSM27XX, for credit (1.0 FCE). For students who take more than two experiential courses, these would not be counted towards the MBA degree requirements. Students should be aware that the following restrictions apply:
  o Students can only take RSM2709H Global Practicum for credit one time.
  o Students can only take one from the following for credit: RSM2702H, RSM2703H, or RSM2760H.
  o Students taking part in an exchange with one of the partner schools for four half credits or more cannot take the experiential learning courses for credit. Students taking part in an exchange with one of the partner schools for three half credits or less can take one experiential learning course (0.5 FCE) for credit.
• Students are not eligible to take a combined degree program.
• Students have the option of completing an emphasis in Data Analytics and Modeling; Finance; Global Management; Innovation, Entrepreneurship, and Business Design; Leadership; Marketing; Strategy; or Sustainability and Society as part of their degree program. Please see details in the Management MBA Emphasizes section.

Program Length

8 sessions (3 years) (typical registration sequence: F/W/S/F/W/S/F/W)

Time Limit

3 years

Management, Rotman School: Management MBA Extended Full-Time Courses

Required Courses

Weighting for 1000-level courses is determined by the second digit of the four-digit course number as follows:

<table>
<thead>
<tr>
<th>Second Digit</th>
<th>Course Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>one credit hour</td>
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</tr>
<tr>
<td>3</td>
<td>three credit hours</td>
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<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM1160H</td>
<td>Business Ethics</td>
</tr>
<tr>
<td>RSM1165H</td>
<td>Leveraging Diverse Teams (Credit/No Credit)</td>
</tr>
<tr>
<td>RSM1201H</td>
<td>Foundations of Strategic Management</td>
</tr>
<tr>
<td>RSM1210H</td>
<td>Managerial Economics</td>
</tr>
<tr>
<td>RSM1211H</td>
<td>Economic Environment of Business</td>
</tr>
<tr>
<td>RSM1215H</td>
<td>Decision Making with Models and Data</td>
</tr>
<tr>
<td>RSM1220H</td>
<td>Financial Accounting and Reporting: A Global Perspective</td>
</tr>
</tbody>
</table>
Management, Rotman School: Management Executive MBA

Program Description

The Rotman One-Year Executive MBA provides mid-to-senior working professionals and entrepreneurs who have management experience with the business knowledge and leadership skills they need to take their careers to the next level. The innovative 13-month curriculum, taught by world-class faculty, is focused on developing senior management strategy, decision-making, and leadership skills.

Classes take place every other Thursday night, Friday, and Saturday, with four week-long residential modules spread throughout the program so that students maximize the learning experience while minimizing time away from work.

Minimum Admission Requirements

- Applicants are considered under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School's additional admission requirements stated below.
- Admission is restricted to applicants with current full-time employment and significant professional work and managerial experience:
  - 8+ years of full-time work experience.
  - 3+ years in a mid-to-senior management role.
- Demonstrated teamwork and leadership skills.
- People and/or project management experience.
- Admissions interview.
- A recognized undergraduate degree or equivalent.
- Applicants must obtain either a satisfactory score for the Executive MBA Diagnostic Tool (EDT), the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE; General Test).
- If required, completion of the following English proficiency tests:
  - Test of English as a Foreign Language (TOEFL) Internet-based format: overall score of 100 with a minimum of 22 on the writing and speaking sections.
  - International English Language Testing System (IELTS) Academic: score of 7.0 with minimum 6.5 required for each component.
- Applicants who meet all the minimum admission requirements will be assessed by the admissions committee on the basis of grades, standardized test scores, references, essays, professional experience, and a personal interview.

Program Requirements

- Within this 13-month program:
  - Students must complete 23 courses, including the set of 14 core courses, with an accumulated credit weighting of 11.50.
  - Students must complete a structured sequence of courses. No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program.
  - With the permission of the Academic Director, students in good standing may apply to participate and take up to one course in an international exchange program approved by the University of Toronto. Courses selected are subject to the approval of the Academic Director.

Program Length

4 sessions (13 months) full-time (typical registration sequence: F/W/S/F)

Time Limit

3 years

Management, Rotman School: Management Executive MBA Courses

Required Courses

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM5001H</td>
<td>Strategy 1</td>
</tr>
<tr>
<td>RSM5011H</td>
<td>Capstone Project</td>
</tr>
<tr>
<td>RSM5101H</td>
<td>Economics 1</td>
</tr>
<tr>
<td>RSM5102H</td>
<td>Economics 2</td>
</tr>
<tr>
<td>RSM5201H</td>
<td>Accounting 1</td>
</tr>
<tr>
<td>RSM5301H</td>
<td>Finance 1</td>
</tr>
<tr>
<td>RSM5302H</td>
<td>Finance 2</td>
</tr>
</tbody>
</table>
Non-core Courses

At the discretion of the Academic Director and the Vice-Dean, MBA Programs, up to four of the non-core courses may be substituted with elective courses from the list of electives offered for the Full-Time MBA and Extended Full-Time MBA (Morning/Evening) Programs. Students may also substitute up to two of the non-core courses with elective courses offered for the Global Executive Master of Business Administration (GEMBA) field. Note that the GEMBA field is only offered as part of the dual degree with Bocconi University. Available GEMBA electives vary each year. Courses will be communicated to students upon program start.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM2609H</td>
<td>Aligning People with Strategy</td>
</tr>
<tr>
<td>RSM2619H</td>
<td>Power and Influence in Organizations</td>
</tr>
<tr>
<td>RSM5002H</td>
<td>Strategy 2</td>
</tr>
<tr>
<td>RSM5006H</td>
<td>Corporate Governance</td>
</tr>
<tr>
<td>RSM5007H</td>
<td>International Business</td>
</tr>
<tr>
<td>RSM5009H</td>
<td>Topics in Strategic Management</td>
</tr>
<tr>
<td>RSM5202H</td>
<td>Accounting 2</td>
</tr>
<tr>
<td>RSM5291H</td>
<td>Business Problem Solving: A Model-Based Approach</td>
</tr>
<tr>
<td>RSM5502H</td>
<td>Marketing 2</td>
</tr>
<tr>
<td>RSM5601H</td>
<td>Organizational Leadership</td>
</tr>
<tr>
<td>RSM5605H</td>
<td>The Thoughtful Leader</td>
</tr>
<tr>
<td>RSM5609H</td>
<td>Special Topics in Organizational Behaviour</td>
</tr>
</tbody>
</table>

Management, Rotman School: Management Executive MBA; Field: Global (Dual Degree)

Dual Degree Program: Global Executive Master of Business Administration (University of Toronto / Bocconi University)

Program Description

The Global Executive MBA (GEMBA) field may only be taken as part of a dual degree offered by the University of Toronto’s Rotman School of Management and Bocconi University’s SDA Bocconi School of Management. This offering is commonly referred to as the “Rotman-SDA Bocconi Global Executive MBA.”

Spanning 18 months and seven business centers across four continents, the program accepts applications from full-time professionals in for-profit businesses, not-for-profit enterprises, research institutes, and entrepreneurial ventures from around the globe. The Rotman-SDA Bocconi GEMBA will change the way students think, network, and do business in some of the world’s largest markets: North America, East Asia, South Asia, Europe, and Latin America.

Upon successful completion of the degree requirements of both programs, students will receive an MBA from the Rotman School and a Global Executive MBA from SDA Bocconi.

Contact

www.rotman.utoronto.ca/Degrees/MastersPrograms/MBAPrograms/GEMBA
Rotman-SDA Bocconi Global Executive MBA Program
Rotman School of Management, University of Toronto
Email: gemba@rotman.utoronto.ca
Rotman-SDA Bocconi Global Executive MBA Program
SDA Bocconi School of Management, Bocconi University
Email: info@sdabocconi.it

Application Process

- Applicants may apply to either the Rotman School or SDA Bocconi.
- Applicants applying through Rotman must submit their application online.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School’s additional admission requirements stated below.
- Five years of work experience with a minimum of two years at the management level (people, project, and/or budget management experience).
- Recognized undergraduate degree or equivalent.
- Applicants must obtain a satisfactory score for one of the following tests: the Rotman Executive Diagnostic Test (EDT), the SDA Bocconi diagnostic test, the Graduate Management Admission Test (GMAT), or the Graduate Record Examination (GRE; General Test). Test results are valid for five years. For further details, contact the admissions office.
- If required, completion of the following English proficiency tests:
  - Test of English as a Foreign Language (TOEFL) Internet-based format: overall score of 100 with a minimum of 22 on the writing and speaking sections.
International English Language Testing System (IELTS) Academic: score of 7.0 with minimum 6.5 required for each component.

- Current full-time employment.
- Ability to work in international teams and demonstrated leadership skills.

Program Requirements

Students complete 10 modules of between 5.5 and 8.5 days each, held in various cities. Within this 18-month dual degree program:

- Students must complete 26 courses worth **12.25 full-course equivalents (FCEs)** consisting of 24 required courses and 2 electives. The 2 electives may be taken through the Rotman School, or SDA Bocconi, or exchange partner schools (with courses at the latter pre-approved by the program Academic Directors). The available Rotman electives will be communicated approximately 4 to 6 months before the summer elective period (July and August).
- See the list of required Rotman courses.

Program Length

5 sessions (18 months) full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years

Management, Rotman School: Management Executive MBA; Field: Global (Dual Degree) Courses

Courses in this dual degree program follow the approved grading scale of High Honours/Honours/Pass/Low Pass/Fail, unless otherwise noted.

Required Courses for the Dual Degree Program, Global Executive MBA

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM1360H</td>
<td>Leading People in Organizations</td>
</tr>
<tr>
<td>RSM2012H</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>RSM2524H</td>
<td>Business Design Practicum</td>
</tr>
<tr>
<td>RSM2615H</td>
<td>Special Topics in Organizational Behaviour and Human Resource Management</td>
</tr>
<tr>
<td>RSM5001H</td>
<td>Strategy 1</td>
</tr>
<tr>
<td>RSM5002H</td>
<td>Strategy 2</td>
</tr>
<tr>
<td>RSM5007H</td>
<td>International Business</td>
</tr>
<tr>
<td>RSM5008H (0.25 FCE)</td>
<td>Corporate Governance</td>
</tr>
<tr>
<td>RSM5023H</td>
<td>Strategic Change and Implementation</td>
</tr>
<tr>
<td>RSM5101H</td>
<td>Economics 1</td>
</tr>
<tr>
<td>RSM5201H</td>
<td>Accounting 1</td>
</tr>
<tr>
<td>RSM5202H</td>
<td>Accounting 2</td>
</tr>
<tr>
<td>RSM5301H</td>
<td>Finance 1</td>
</tr>
<tr>
<td>RSM5302H</td>
<td>Finance 2</td>
</tr>
<tr>
<td>RSM5304H</td>
<td>Creating Value Through Acquisitions and Private Equity</td>
</tr>
<tr>
<td>RSM5401H</td>
<td>Business Operations</td>
</tr>
<tr>
<td>RSM5501H</td>
<td>Marketing 1</td>
</tr>
<tr>
<td>RSM5602H</td>
<td>Negotiations</td>
</tr>
<tr>
<td>RSM5603H</td>
<td>The Business Environment: Ethics</td>
</tr>
<tr>
<td>RSM5604H</td>
<td>Leadership Development Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>RSM5607H (0.25 FCE)</td>
<td>Leveraging Diverse Teams</td>
</tr>
<tr>
<td>RSM5608H (0.25 FCE)</td>
<td>Business Analytics</td>
</tr>
<tr>
<td>RSM5801H</td>
<td>Quantitative Reasoning for Management</td>
</tr>
<tr>
<td>RSM5901H</td>
<td>Managing Innovation</td>
</tr>
</tbody>
</table>

\* Course that may continue over a program. The course is graded or credit is given when completed.

Elective Courses

The available Rotman electives will be communicated approximately 4 to 6 months before the summer elective period (July and August).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM2698H</td>
<td>Special Topics in Organizational Behaviour</td>
</tr>
</tbody>
</table>

Management, Rotman School: Management Executive MBA; Field: Global Healthcare and the Life Sciences

Field: Global Executive Master of Business Administration for Healthcare and the Life Sciences
Program Description

The intensive 18-month Global Executive MBA for Healthcare and the Life Sciences (GEMBA-HLS) is designed for working professionals in the healthcare and life sciences industries. This field of study immerses students in key healthcare and life sciences clusters around the world. By learning from leading faculty and experienced sector leaders, students gain the knowledge and skills needed for success. While exploring current and future best practices globally, students are guided through an in-depth assessment of their own capabilities with a view to becoming more impactful leaders.

Over the 18 months of the program, students will partake in six international modules in some of the world’s key healthcare and life sciences markets (currently three in Toronto, and one each in the San Francisco Bay area; London, U.K.; and Singapore). The program is delivered in a blended model, primarily face-to-face, supplemented with online learning. It leverages the strengths of the Rotman School, as well as relationships with the University of Toronto and the global healthcare and life sciences communities. Located on the edge of Toronto’s medical discovery district, Rotman is uniquely positioned to play a leading role in the management innovations taking place in pharmaceuticals and biotechnology, medical technology, medical informatics, telemedicine, insurance, patient engagement, long-term care, and health system design.

Minimum Admission Requirements

- Applicants are considered under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School’s additional admission requirements stated below.
- Admission is restricted to applicants with significant professional work and managerial experience in healthcare or the life sciences:
  - 8+ years of full-time work experience.
    - 3+ years in a mid-to-senior leadership, management, or administrative role (or equivalent).
    - Demonstrated teamwork and leadership skills.
- A base of knowledge of healthcare or life sciences organizations.
- Evidence of academic achievement.
- Applicants must obtain either a satisfactory score for the Rotman Executive MBA Diagnostic Tool (EDT), the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE; General Test). Test results are valid for five years. See further details or contact the admissions office.
- If required, completion of the following English proficiency tests:
  - Test of English as a Foreign Language (TOEFL) Internet-based format: overall score of 100 with a minimum of 22 on the writing and speaking sections.
  - International English Language Testing System (IELTS) Academic: score of 7.0 with minimum 6.5 required for each component.
- Applicants who meet all the minimum admission requirements will be assessed by the admissions committee on the basis of grades, standardized test scores, references, essays, professional experience, and a personal interview.
- Please note that special program fees apply for this program.

Program Requirements

- Within this 18-month program, students must successfully complete a structured sequence of 23 courses with an accumulated credit weighting of 11.50. No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program.
- One to four courses may be substituted with course(s) offered in the regular MBA program at the discretion of the Academic Directors.
- The Global Executive MBA for Healthcare and the Life Sciences follows a blended model of delivery; i.e., a mix of face-to-face and online. It is offered during six residential modules (of between 7 and 11 days each) and study periods, held in various cities. Supplemental curriculum hours are delivered online.

Program Length

5 sessions (18 months) full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years

Management, Rotman School: Management Executive MBA; Field: Global Healthcare and the Life Sciences Courses

Required Courses

*At the discretion of the Academic Director and the Vice-Dean, MBA Programs, up to four of these courses may be substituted with courses from the list of electives offered for the Full-Time MBA and Extended Full-Time MBA (Morning/Evening MBA) Programs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM2020H</td>
<td>Health Sector Strategy and Organizations</td>
</tr>
<tr>
<td>RSM2083H</td>
<td>Special Topics in Strategic Management</td>
</tr>
<tr>
<td>RSM2522H</td>
<td>Marketing and Behavioural Economics</td>
</tr>
<tr>
<td>RSM2524H</td>
<td>Business Design Practicum</td>
</tr>
<tr>
<td>RSM5001H</td>
<td>Strategy 1</td>
</tr>
<tr>
<td>RSM5007H</td>
<td>International Business</td>
</tr>
<tr>
<td>RSM5012H</td>
<td>Special Topics in Strategy</td>
</tr>
<tr>
<td>RSM5013H</td>
<td>Digital Health</td>
</tr>
<tr>
<td>RSM5014H</td>
<td>Data Analytics and Strategic Decision-Making in Health and Life Sciences</td>
</tr>
</tbody>
</table>
Management, Rotman School: Finance MF

Master of Finance

Program Description

The Master of Finance (MF) program provides the most in-depth theoretical and applied finance training currently available. Aimed at experienced working professionals, the program is delivered on Wednesday evenings and alternating Saturdays over 20 months. This enables students to advance their career without leaving work, and be able to apply the knowledge learned in the classroom immediately in the workplace. Students come from a variety of backgrounds such as financial risk, portfolio management, corporate finance, equity research, accounting, sales and trading, insurance, pensions, and legal settings.

From September 2021 through June 30, 2024 (two academic years), the MF program is offered via dual delivery. Students may choose to attend class in-person or online.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university.

Program Requirements

- Within this 20-month program (two academic years):
  - Students must complete a structured sequence of 5.75 full-course equivalents (FCEs) (11.5 half-course equivalents) taken over five sessions. No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM4113H</td>
<td>Macroeconomics for Finance Professionals (0.25 FCE)</td>
</tr>
<tr>
<td>RSM4216H</td>
<td>Financial Reporting and Financial Statement Analysis</td>
</tr>
<tr>
<td>RSM4220H</td>
<td>Advanced Accounting Topics for Finance</td>
</tr>
<tr>
<td>RSM4310H</td>
<td>Foundations of Finance</td>
</tr>
<tr>
<td>RSM4314H</td>
<td>Risk Management and Financial Institutions</td>
</tr>
<tr>
<td>RSM4315H</td>
<td>Investment Banking and Corporate Valuation</td>
</tr>
<tr>
<td>RSM4317H</td>
<td>Analysis of Fixed Income Markets</td>
</tr>
<tr>
<td>RSM4318H</td>
<td>Applied Portfolio Management</td>
</tr>
<tr>
<td>RSM4319H</td>
<td>Forecasting Risks and Opportunities for Financial Securities</td>
</tr>
<tr>
<td>RSM4322H</td>
<td>Applications of Derivatives Products</td>
</tr>
<tr>
<td>RSM4323H</td>
<td>Investments</td>
</tr>
<tr>
<td>RSM4324H</td>
<td>Innovations in Financial Technology</td>
</tr>
</tbody>
</table>
Consult the departmental website for course descriptions.

Program Length

5 sessions (2 years) full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years

Management, Rotman School: Financial Risk Management MFRM

Master of Financial Risk Management

Program Description

The Master of Financial Risk Management (MFRM) is designed to prepare students who excel at finance and quantitative analysis for careers in this in-demand sector. A bridge between academic and professional life, this full-time, 10-month program allows students to fast-track into the finance industry — giving them a competitive edge over applicants with only an undergraduate degree.

Students will gain a better understanding of the different types of risk, the regulatory environment, and how different financial institutions manage uncertainty. They consider the ways risk is measured and managed, looking at systems and models currently used within the financial sector.

Students have the opportunity to gain real-world experience during the Risk Management Project which takes place midway through the program. They will work on a real risk issue that is relevant and of interest to financial institutions. During the nine-week project, students will be taken out of the classroom and into industry, working with practising risk management professionals.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School’s additional admission requirements stated below.
- A recognized four-year undergraduate degree or equivalent: A business, commerce, economics, mathematics, engineering, or actuarial science degree is preferred. However, other four-year undergraduate degrees will be considered if there is evidence of strong quantitative skills with a minimum B average in calculus, linear algebra, and statistics or econometrics.
- Quantitative proficiency, usually demonstrated through the completion of university-level courses with a minimum B average, in calculus, linear algebra, and statistics and/or econometrics during the undergraduate degree.
- Two academic references.
- Essays (written essay, video questions, and real-time written response).
- English-language proficiency (if required).
- Prerequisite knowledge in the following areas, usually demonstrated through the completion of university-level courses:
  - Foundations of finance.
  - Financial accounting.
  - Investments.
  - Financial derivatives.
  - Applicants who have not completed courses in one or more of these subject areas may be offered admission conditional on successful completion of one or more qualifying examinations demonstrating equivalent knowledge.
- Demonstrated knowledge of Python coding. All offers of admission will be conditional upon the successful completion of a Python coding online course and examination. Applicants will be given access to online instruction modules in preparation for the examination and will have up to two attempts prior to the start date of the program.
- Applicants who meet all the criteria will be assessed on the basis of their application essays, answers to video questions, grades, and references by the admissions committee. Selected applicants will then be invited for an admission interview. The admission decision will be based on both submitted materials and interview performance.

Program Requirements

Within this 10-month, full-time program (three sessions), students must complete a structured sequence of 12 half courses (6.0 full-course equivalents [FCEs]). No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program. The courses in the program are as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM6301H</td>
<td>Topics in Financial Risk</td>
</tr>
<tr>
<td>RSM6302H</td>
<td>Financial Markets, Risk, and Institutions</td>
</tr>
<tr>
<td>RSM6303H</td>
<td>Regulation of Financial Institutions</td>
</tr>
<tr>
<td>RSM6304H</td>
<td>Operational Risk</td>
</tr>
<tr>
<td>RSM6305H</td>
<td>Credit Risk</td>
</tr>
<tr>
<td>RSM6306H</td>
<td>Probabilistic Modelling for Risk-Informed Decisions</td>
</tr>
<tr>
<td>RSM6307H</td>
<td>Macroeconomics for Financial Risk Management Professionals</td>
</tr>
<tr>
<td>RSM6308H</td>
<td>Advanced Investments</td>
</tr>
<tr>
<td>RSM6310H</td>
<td>Derivative Models for Risk Management</td>
</tr>
<tr>
<td>RSM6311H</td>
<td>Rotman Risk Management Project</td>
</tr>
<tr>
<td>RSM6313H</td>
<td>Innovations in Financial Technology</td>
</tr>
<tr>
<td>RSM6601H</td>
<td>MFRM Self Development Lab (Credit/No Credit)</td>
</tr>
</tbody>
</table>
Program Length
3 sessions full-time (typical registration sequence: F/W/S)

Time Limit
3 years full-time

Management, Rotman School: Management Analytics MMA

Master of Management Analytics

Program Description

The professional Master of Management Analytics (MMA) degree program offers a curriculum that combines analytical depth with a focus on business issues and applications. Analytical depth is provided by courses on acquisition and structuring of data, predictive and prescriptive analytics, machine learning, artificial intelligence (AI) and deep learning, decision analysis, and simulation modelling. Courses applying analytics to business feature the use of analytics in marketing, operations, supply chain management, accounting, and finance. Students are exposed to real-life application of management analytics through the analytics practicum.

The MMA degree program is offered over 11 months using a cohort-based model. Students must complete a sequence of 14 half-course equivalents (7.0 full-course equivalents [FCEs]) on a full-time basis. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program. The MMA is designed for pre-experience graduates.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rotman School’s additional admission requirements stated below.
- Appropriate four-year undergraduate degree or equivalent: Given the nature of the MMA program, degrees in Computer Science, Statistics, Mathematics, Engineering, Physical Science, Economics, and Commerce will be preferred, but degrees from any program where there is a significant quantitative and computational component will be considered.
- Quantitative proficiency: Evidence of a high level of proficiency (a minimum B average) in quantitative subjects is required. Mastery of mathematics is essential including, at a minimum, calculus and linear algebra, as are courses covering probability and statistics. In cases where evidence of quantitative proficiency is not obvious, applicants must provide supplemental evidence. All offers of admission will be conditional on successful completion of a qualifying examination in statistics.
- Computational proficiency: Demonstrated proficiency in Python coding. All offers of admission will be conditional on successful completion of an assessment of Python coding.
- Prerequisite knowledge in foundations of finance and financial accounting, usually demonstrated through the completion of university-level courses. Applicants who have not completed courses in one or both of these subject areas may be offered admission conditional on successful completion of one or more qualifying examinations that will demonstrate the applicant’s equivalent knowledge.
- English-language proficiency: Applicants must demonstrate the ability to communicate in English in one of the following ways:
  - An undergraduate or graduate degree from a university at which the language of instruction and examination was English.
  - Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must achieve a Test of English as a Foreign Language (TOEFL) score of at least 100. The International English Language Testing System (IELTS) may be considered in special circumstances with a minimum score of 7.0 required.
- Two academic references.
- Essays (written essay, video questions, and real-time written response).
- All successful applicants are expected to demonstrate effective oral and written communication skills.
- Demonstration of academic ability: a high Graduate Management Admission (GMAT) or Graduate Record Examination (GRE) score is encouraged, though it is not mandatory.
- Applicants who meet all the criteria will be assessed on the basis of their application essays, answers to the video questions, grades, and references by the admissions committee.
- Selected applicants will then be invited for an admission interview. The admission decision will be based on both submitted materials and interview performance.

Program Requirements

- Students must be on campus by early to mid-August.
- Within this three-session program, students must complete a sequence of **7.0 full-course equivalents (FCEs)** (14 half-course equivalents). No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program.
- 5.5 FCEs (11 half-course equivalents) are mandatory for all MMA students and are completed as a structured sequence of courses as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM8411H</td>
<td>Structuring and Visualizing Data for Analytics</td>
</tr>
<tr>
<td>RSM8413H</td>
<td>Machine Learning Analytics</td>
</tr>
<tr>
<td>RSM8414H</td>
<td>Tools for Probabilistic Models and Prescriptive Analytics</td>
</tr>
<tr>
<td>RSM8431Y0</td>
<td>Analytics Colloquia</td>
</tr>
<tr>
<td>RSM8432H0</td>
<td>Management Analytics Practicum</td>
</tr>
</tbody>
</table>
Management, Rotman School: Professional Accounting GDipPA

Graduate Diploma in Professional Accounting

Program Description

The Rotman Graduate Diploma in Professional Accounting (GDipPA) is an excellent way to gain advanced standing in the pursuit of a Chartered Professional Accountant (CPA) certification. This 12-week summer program deepens knowledge of accounting while satisfying four modules of the CPA Professional Education Program (CPA PEP). The program helps prepare students for the Common Final Examination (CFE) and allows them to advance straight to the Capstone 1 module in the CPA PEP.

The program takes advantage of the depth of accounting expertise at the Rotman School as well as its long-standing commitment to professional accounting education.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy additional admission requirements stated below.
- Admission to the program is available to students in Year 4 or to recent graduates of the following University of Toronto undergraduate programs:
  - Rotman's Bachelor of Commerce (Accounting Specialist).
  - University of Toronto Mississauga's Bachelor of Commerce (Accounting Specialist).
  - University of Toronto Scarborough's Bachelor of Business Administration (Specialist in Management and Accounting).
- University of Toronto students who are not currently completing one of the accounting specialist programs are required to take specific courses to be considered as applicants to the GDipPA program.
- Applicants from outside the University of Toronto: The accreditation that the University of Toronto has received from CPA Ontario specifies that only candidates with University of Toronto degrees, or equivalent, may be given advanced standing in the CPA Professional Education Program (PEP). In determining whether a degree from another Canadian university is equivalent, the admissions committee will review each submitted application individually. Prior to applying, applicants are encouraged to ensure that the courses they have taken meet the requirements for entry into CPA PEP.
- Course requirements:
  - Successful completion of all the courses required for entry into the CPA Professional Education Program (CPA PEP) as determined with CPA Ontario:
    - Required core courses: a minimum overall average of 70%.
    - Each individual core course: a minimum grade of 60%.
    - Each individual non-core course: a passing grade or 50%, whichever is higher.
- Applicants who meet all the criteria will be assessed on the basis of their application package and grades by the admissions committee. Selected applicants may be invited for an admission interview.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Course that may continue over a program. The course is graded when completed.
Program Requirements

Students must complete a structured sequence of **2.5 full-course equivalents (FCEs)** (five half courses). No advanced standing will be granted for previous academic work completed or professional designations earned. Students who are unable to follow courses in their prescribed order must attain special approval from the Academic Director in order to continue in the program. The courses in the program are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM7201H</td>
<td>Advanced Financial Reporting</td>
</tr>
<tr>
<td>RSM7202H</td>
<td>Advanced Taxation</td>
</tr>
<tr>
<td>RSM7203H</td>
<td>Advanced Topics in Assurance and Control</td>
</tr>
<tr>
<td>RSM7301H</td>
<td>Finance and Professional Practice</td>
</tr>
<tr>
<td>RSM7204H</td>
<td>Integration and Analysis</td>
</tr>
</tbody>
</table>

Program Length

1 session full-time (typical registration sequence: S)

Time Limit

2 years
Management, Tri-campus

Management, Tri-campus: Introduction

Faculty Affiliation

Management, Tri-campus

Degree Programs

Management

PhD

- Fields:
  - Accounting;
  - Business Economics;
  - Finance;
  - Marketing;
  - Operations Management;
  - Organizational Behaviour and Human Resources Management;
  - Strategic Management

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Environmental Studies
  - Management, PhD
- Global Health (U of T Global Scholar)
  - Management, PhD

Overview

The PhD in Management at the University of Toronto is a vibrant and intellectually rich environment for those interested in developing new insights in management scholarship. There is a close-knit community of scholars who value and celebrate insightful, breakthrough research.

The PhD is a challenging program which features coursework, cutting-edge research training, and close working relationships with some of the best management academics in the world. Students work closely with faculty in a research-led culture which emphasizes rigor, creativity, and innovation. The curriculum is carefully designed to support students as publishing scholars as early as possible in their doctoral studies. The success of this program is evidenced in placements in leading business schools and the impressive careers of its graduates.

Contact and Address

Graduate Department of Management

Web: www.rotman.utoronto.ca/Degrees/PhD
Email: Kate.Alexandrova@rotman.utoronto.ca
Telephone: (416) 946-0894

Rotman School of Management
University of Toronto
105 St. George Street

Toronto, Ontario M5S 3E6
Canada

Management, Tri-Campus: Graduate Faculty

Full Members

Afeche, Philip - BA, MS, PhD
Aggarwal, Pankaj - BEc, MBA, MBA, PhD
Agrawal, Ajay - BSc, MEng, MBA, PhD
Aivazian, Varouj - BS, MA, PhD
Akay Jr., Pat - BCom, MRes, PhD
Amerinc, Joel - BSc, MBA, CA
Anastakris, Dimitry - PhD
Averbakh, Igor - MSc, PhD
Bar-Isaac, Heski - BA, MSc, PhD
Baron, Opher - BSc, MBA, PhD (Academic Director, Master of Management Analytics Program)
Baum-Snow, Nathaniel - AB, PhD
Baum, Joel - BA, MBA, PhD
Blum, Bernardo - BA, MA, MA, PhD
Booth, Laurence - BSc, MBA, MA, DBA
Bova, Francesco - BComm, MA, MBA, MPH, PhD
Bowers, Anne - BA, MBA, PhD
Brooks, Leonard - BComm, MBA, CA, CPA
Bryan, Kevin - BA, MS, MS, PhD
Callen, Jeffrey - BM, MBA, DPhil
Casciaro, Tiziana - BA, MS, PhD
Celerier, Claire - MSc, PhD
Chandra, Ambarish - BMath, MEC, PhD
Chen, Feng - MA, PhD, CGA, CPA
Cheng, Ing-Haw - MEC (Academic Director, Master of Financial Risk Management Program)
Christianson, Marlys - MD, PhD
Christoffersen, Susan - BA, MA, PhD (Dean)
Cire, Andre Augusto - BSc, MSc, PhD
Connelly, Brian Samuel - BA, PhD
Corts, Kenneth - BA, MA, PhD (Vice-Dean, Research, Strategy, and Resources)
Côté, Stéphane - BSc, MA, PhD
Cunningham, William - BA, MA, MPH, MS, PhD
Davydenko, Sergei - MA, MSc, PhD (Academic Director, Master of Finance Program)
de Bettignies, Jean-Etienne - BSc, MA, MBA, PhD
DeCelles, Katherine - BS, PhD (Academic Director, PhD Program)
Dhuey, Elizabeth Ann - BA, MEC, PhD
Doidge, Craig Andrew - BComm, MSc, PhD (Vice-Dean, Faculty)
Dyck, Alexander - BA, PhD
Edwards, Alexander - BAC, MAcc, MS, PhD
Elitzur, Ramy - BA, MBA, PHM, PhD
Elkamhi, Redouane - BE, MBA, PhD
Feinberg, Matthew - BA, MEd, PhD
Florida, Richard - BA, PhD
Franco, April - BPhil, MEC, PhD (Chair, Department of Management, UTSC)
Frazer, Garth - BE, BM, MA, MPH, PhD
Galasso, Alberto - PhD
Gans, Joshua - BEc, PhD
Golden, Brian - BS, MS, PhD (Academic Director, Global Executive MBA for Healthcare and the Life Sciences Programs)
Goldfarb, Avi - BA, MA, PhD
Goldreich, David - BS, MS, MS, PhD
Golubov, Andrey - MSc, PhD
Han, Bing - PhD  
Han, Lu - BA, MA, PhD  
Hansen, Samantha - BA, MA, PhD  
Hawkins, Scott - BA, MS, PhD  
Hejazi, Walid - BA, MA, PhD (Academic Director, Executive Programs)  
Hope, Ole-Kristian - MBA, PhD  
Hossain, Tanjim - BA, BS, PhD (Chair, Department of Management, UTM)  
Hu, Ming - BS, MS, PhD  
Hull, John - BA, MA, PhD  
Kan, Raymond - BBA, MBA, DPhil  
Kaplan, Sarah - BA, MA, PhD  
Kramer, Lisa - BBA, PhD  
Krass, Dmitry - BS, MEng, PhD  
Lacetera, Nicola - PhD  
Landry, Peter - BS, MS, PhD  
Latham, Gary - BA, MS, PhD  
Lederman, Mara - BA, PhD  
Lee, Byung Soo - BS, MA, PhD  
Li, Yue - BSc, MBA, PhD  
Liao, Scott - MA, PhD (Vice-Dean, Undergraduate and Specialized Programs)  
Llu, Hai - MBA, PhD, PhD  
Macklem, Tiff - BA, MA, PhD  
Maglio III, Sam James - AB, PhD  
Mahrt-Smith, Jan - BSc, PhD (Academic Director, Global Executive MBA Program)  
Malekian, Azarakhsh - BSc, MS, PhD  
McCarthy, Julie - BA, MPsy, PhD  
McCurdy, Tom - BA, MA, PhD  
McEvily, Bill - BS, PhD  
McGahan, Anita - BA, MA, MBA, PhD  
Mehta, Nitin - BTech, MS, MS, PhD  
Milner, Joseph - BSc, MS, PhD (Vice-Dean, MBA Programs)  
Mitchell, Matthew - BS, MA, PhD  
Mohanram, Partha Sarathy - BTech, MBA, PhD  
Moldoveanu, Minhea - BSc, MSc, MBA, DBA  
Moorthi, Sridhar - BSc, MBA, MS, PhD  
Onthanalai, Chay - BEng, PhD  
Osborne, Matthew James - BA, PhD  
Park, Andreas - MEng, MPH, PhD  
Reuber, Becky - BA, MSc, PhD  
Richardson, Gordon - BA, MBA, PhD, CA  
Riddough, Steven John - BSc, MPH, PhD  
Rotenberg, Wendy - BA, MBA, PhD  
Rotundo, Maria - BA, MA, PhD  
Rowley, Timothy - BA, MBA, PhD (Academic Director, Morning and Evening MBA, Executive MBA Programs)  
Ruall, Michael - BS, MBA, PhD  
Saks, Alan - BA, MSc, PhD  
Shalev, Ron - MA, MPH, PhD  
Silverman, Brian - AB, MA, SM, PhD  
Simutin, Mikhail - BA, PhD  
Smiejauskas, Waldemar - BS, MS, PhD  
Soberman, David - BSc, MBA, PhD  
Soman, Dilip - BE, MBA, PhD  
Stark, Andrew - BA, MSc, AM, PhD  
Strange, William - BA, MA, PhD  
Tilcsik, Andras - AB, AM, PhD  
Toh, Soo Min - BBA, PhD  
Tombak, Mihkel - BS, MBA, AM, PhD  
Treffler, Daniel - BA, MPH, PhD  
Trougakos, John Peter - BS, MBA, PhD  
Tsai, Claire - BBA, MBA, PhD (Director, Faculty Recruiting)  
Virag, Gabor - BA, MA, PhD  
Vyas, Dushyanthkumar - PhD  
Wahid, Aida - BA, MA, PhD  
Wang, Kevin - BS, MA, PhD  
Webb, Ryan - BA, MA, PhD  
Wei, Jason - BSc, MBA, PhD  
Wensley, Anthony - MA, MA, MBA, PhD  
Whyte, Glen - LLB, MA, MBA, MPH, PhD  
Wong, Franco - BA, MA, PhD  
Xie, Jia Lin - BA, MBA, PhD  
Xin, Baohua - PhD  
Yang, Liyan - BA, MA, PhD  
Ye, Minlei - PhD  
Zhang, Ping - BA, MAcc, MA, PhD  
Zhong, Chenbo - BA, MA, PhD (Acting Academic Director, PhD Program)  
Zweig, David - BA, MASc, DPhil  

Members Emeriti  
Amburgey, Terry - BS, MA, PhD  
Berman, Oded - BA, PhD  
Borins, Sandford - BA, PhD  
Brean, Donald J.S. - BA, MBA, MSc, PhD  
D'Cruz, Joseph - BA, MBA, PhD  
Dobson, Wendy - BScN, MPA, SM, PhD  
Dungan, D. Peter - BA, MA, PhD  
Fisher, James - BA, MBA  
Fleck, James - BA, DBA  
Guzn, Hugh - DPhil, PhD  
Halpern, Paul - BCom, MBA, PhD  
Horstmann, Ignatius - BA, PhD  
Hyatt, Douglas - BA, MA, PhD  
Kirzner, Eric - BA, MBA  
Kolodny, Harvey - BEng, MBA, PhD  
Martin, Roger - AB, MBA  
Menzefricke, Ulrich - MBA, DBA  
Mitchell, Andrew - BA, PhD  
Ondrack, Daniel - BComm, MBA, PhD  
Oxley, Joanne - BSc, MA, MBA, PhD  
Pauly, Peter - MA, PhD  
Verma, Anil - BTech, MBA, PhD  
White, Alan - BEng, MBA, PhD  
Wilson, Thomas - BA, AM, PhD  

Associate Members  
Akchurina, Dinara - MA  
Barjesteh, Nasser - BS, MCS, MS, PhD  
Bountali, Olga - BSc, MSc, PhD  
Caou, El Hadi - BSc, MA  
Catapano, Rhia - BS, PhD  
Caunedo, Julieta - EdD  
Cavenaile, Laurent Xavier C. - MA, MSc, PhD  
Chan, Cindy - BA, MS, PhD  
Chattopadhyay, Akash - BE, MBA  
Corhay, Alexandra - BSc, MSc, PhD  
Derksen, Laura - BSc, MSc, PhD  
Dimitriadis, Stefan - BA, MPH, AM, PhD  
Doering, Laura - BA, MA, MA, PhD  
Down, Andrea - BA, MSc, PhD  
Duke, Kristen - BA, PhD  
Gaetani, Ruben - BA, MA, MSc, PhD  
Gillezeau, Robert - BA, MA, PhD  
Goetz, Daniel - BA, MA  
Grewal, Jody - BA, MA  
Hebert, Camille - BA, MSc
Management, Tri-campus: Management
PhD

Doctor of Philosophy

Program Description

The Graduate Department of Management offers a world-class doctoral program. Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master's degree or 2) direct entry following completion of a bachelor's degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants to all fields must also satisfy the Rotman School's additional admission requirements stated below.
- Some depth in the cognate disciplines relevant to the field is required.
- These requirements may be satisfied prior to entry to the PhD program through an MBA degree program coupled with a relevant undergraduate degree, or through an undergraduate degree in business, management, or commerce coupled with a discipline-based master's degree.
- If the depth requirements are completed prior to entry to the PhD program, then the student is expected to complete the program in four years. If additional coursework is required, then the student may need an additional year to complete the program.
- Applicants should provide:
  - transcripts from each post-secondary institution attended
  - a letter of intent for applying to the PhD program
  - an updated curriculum vitae (CV)
  - two reference letters
  - a valid GMAT or GRE score (optional)
  - proof of English-language proficiency, if applicable.

Program Requirements

- Students are expected to be qualified in the three basic disciplines essential to the study of management: economics, behavioural science, and quantitative analysis/statistics.
- Students in all fields normally complete coursework in one field and two areas of study during Years 1 and 2. In subsequent years of study, students concentrate on deepening knowledge through additional coursework and on generating unprecedented insights through research that culminates in a written doctoral thesis.
- Coursework. Students must complete a minimum of 4.5 full-course equivalents (FCEs) to satisfy requirements for one field and two areas of study.
  - A minimum of 2.0 FCEs comprise the field. These will normally be taken from 3000-level Management courses, but additional courses from other departments may be required.
  - 2.0 FCEs: courses in the two areas of study are usually taken in cognate departments. Each area of study comprises at least 1.0 FCE.
  - Upon completion of the courses, students are expected to pass comprehensive examinations in the field.
  - Successful completion of the required course RSM3080H Research Methods in Business (0.5 FCE).
- A thesis embodying the results of original investigation must be submitted and defended at a Doctoral Final Oral Examination in accordance with the regulations of the School of Graduate Studies.
- During all years of study, students must maintain residency, whereby students are on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants to all fields must also satisfy the Rotman School's additional admission requirements stated below.
- Some depth in the cognate disciplines relevant to the field of study is required.
• These requirements may be satisfied prior to entry to the PhD program through an MBA degree program coupled with a relevant undergraduate degree, or through an undergraduate degree in business, management, or commerce coupled with a discipline-based master's degree.

• If the depth requirements are completed prior to entry to the PhD program, then the student is expected to complete the program in five years. If additional coursework is required, then the student may need an additional year to complete the program.

• In exceptional cases, and at the discretion of the Rotman School, admission to the program by direct entry may be approved for applicants with an appropriate bachelor’s degree with high standing (a least an A- average in courses relevant to the discipline) from a recognized university.

• Applicants should provide:
  o transcripts from each post-secondary institution attended
  o a letter of intent for applying to the PhD program
  o an updated curriculum vitae (CV)
  o two reference letters
  o a valid GMAT or GRE score (optional)
  o proof of English-language proficiency, if applicable.

Program Requirements

• Students are expected to be qualified in the three basic disciplines essential to the study of management: economics, behavioural science, and quantitative analysis/statistics.

• Students in all fields normally complete coursework in one field and two areas of study during Years 1 and 2. In subsequent years of study, students concentrate on deepening knowledge through additional coursework and on generating unprecedented insights through research that culminates in a written doctoral thesis.

• Coursework. Students must complete a minimum of 6.5 full-course equivalents (FCEs) to satisfy requirements for one field and two areas of study. Direct-entry students must complete 2.0 of the 6.5 FCEs within Year 1.
   o A minimum of 2.0 FCEs in the field. These will normally be taken from 3000-level Management courses, but additional courses from other departments may be required.
   o 2.0 FCE: courses in the two areas of study are usually taken in cognate departments. Each area of study comprises at least 1.0 FCE.
   o An additional 2.0 FCEs in any field related to the student's program of study.
   o Upon completion of the courses, students are expected to pass comprehensive examinations in the field.
   o Successful completion of the required course RSM3080H Research Methods in Business (0.5 FCE).

• A thesis embodying the results of original investigation must be submitted and defended at a Doctoral Final Oral Examination in accordance with the regulations of the School of Graduate Studies.

• During all years of study, students must maintain residency, whereby students are on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

5 years

Time Limit

7 years

Management, Tri-campus: Management PhD Courses

The department should be consulted at the onset of each session as to course offerings.

Courses Normally Restricted to PhD Students

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM3001H</td>
<td>Research Methods in Strategic Management</td>
</tr>
<tr>
<td>RSM3002H</td>
<td>Advanced Topics in Strategy and Organization</td>
</tr>
<tr>
<td>RSM3003H</td>
<td>Advanced Topics in Strategy and Economics</td>
</tr>
<tr>
<td>RSM3005H</td>
<td>Strategic Management Workshop</td>
</tr>
<tr>
<td>RSM3010H</td>
<td>Special Topics in the Economics of Technology and Innovation</td>
</tr>
<tr>
<td>RSM3011H</td>
<td>Advanced Topics in the Theory of Industrial Organization</td>
</tr>
<tr>
<td>RSM3012H</td>
<td>Advanced Topics in Urban and Real Estate Economics</td>
</tr>
<tr>
<td>RSM3013H</td>
<td>Workshop in Economics</td>
</tr>
<tr>
<td>RSM3020H</td>
<td>Financial Accounting: Theory and Empirical Research</td>
</tr>
<tr>
<td>RSM3021H</td>
<td>Managerial Accounting Research Methods</td>
</tr>
<tr>
<td>RSM3022H</td>
<td>Auditing Seminar</td>
</tr>
<tr>
<td>RSM3023H</td>
<td>Topics in Accounting Research</td>
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<tr>
<td>RSM3025H</td>
<td>Workshop in Accounting</td>
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<tr>
<td>RSM3029H</td>
<td>Special Topics in Accounting</td>
</tr>
<tr>
<td>RSM3030H</td>
<td>Financial Theory I</td>
</tr>
<tr>
<td>RSM3031H</td>
<td>Financial Theory II</td>
</tr>
<tr>
<td>RSM3032H</td>
<td>Empirical Methods in Finance</td>
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<tr>
<td>RSM3033H</td>
<td>Current Topics in Finance</td>
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<tr>
<td>RSM3034H</td>
<td>Capital Markets Workshop</td>
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<tr>
<td>RSM3041H</td>
<td>Seminar in Operations Management</td>
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<tr>
<td>RSM3045H</td>
<td>Advanced Topics in Operations Management I</td>
</tr>
<tr>
<td>RSM3046H</td>
<td>Advanced Topics in Operations Management II</td>
</tr>
<tr>
<td>RSM3049H</td>
<td>Special Topics in Operations Management</td>
</tr>
<tr>
<td>RSM3051H</td>
<td>Marketing Theory I: Consumer Behaviour</td>
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<tr>
<td>RSM3052H</td>
<td>Marketing Theory II: Strategy</td>
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<tr>
<td>RSM3053H</td>
<td>Behavioural Research Methods in Marketing</td>
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<tr>
<td>RSM3054H</td>
<td>Current Topics in Consumer Behaviour</td>
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<tr>
<td>RSM3055H</td>
<td>Econometric Methods in Marketing</td>
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<tr>
<td>RSM3056H</td>
<td>Current Topics in Marketing Strategy</td>
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<tr>
<td>RSM3057H</td>
<td>Workshop in Marketing (Credit/No Credit)</td>
</tr>
<tr>
<td>RSM3058H</td>
<td>The Psychology of Judgement and Decision Making</td>
</tr>
<tr>
<td>RSM3059H</td>
<td>Special Topics in Marketing</td>
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<tr>
<td>RSM3060H</td>
<td>Advances in Human Resource Management</td>
</tr>
<tr>
<td>RSM3062H</td>
<td>Methods and Research in Organizational Behaviour</td>
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<tr>
<td>RSM3064H</td>
<td>Advanced Topics in Organizational Behaviour</td>
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<td>RSM3065H</td>
<td>Meso Organizational Behaviour</td>
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<tr>
<td>RSM3066H</td>
<td>Quantitative Methods in the Applied Behavioural Sciences (prerequisite: RSM3062H)</td>
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<tr>
<td>RSM3067H</td>
<td>Organizational Behaviour and Human Resources Management Seminar</td>
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<tr>
<td>RSM3069H</td>
<td>Special Topics in Organizational Behaviour and Human Resources Management</td>
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<td>RSM3080H</td>
<td>Research Methods in Business</td>
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<td>Reading Course in Approved Field</td>
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<td>RSM3090Y</td>
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<tr>
<td>RSM3091H</td>
<td>Reading Course in Approved Field</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*
Management, University of Toronto Scarborough

Management, University of Toronto Scarborough: Introduction

Faculty Affiliation
Management, University of Toronto Scarborough

Degree Programs

Accounting and Finance

MAccFin

Overview

The Master of Accounting and Finance (MAccFin) is the first program of its kind in North America. The MAccFin delivers a world-class, practical education experience that prepares students for careers in professional practice, corporate management, financial services, consulting, and entrepreneurship. MAccFin students are prepared for the Canadian Chartered Professional Accountant (CPA), Chartered Financial Analyst (CFA), and Association of Chartered Certified Accountant (ACCA) designations. Students are also offered a co-op internship to incorporate paid work experience into their academic studies. The program caters to students who aspire to leverage the interconnectedness of accounting and finance to become leaders in the global business world.

Contact and Address

Web: www.uoft.me/maccfin
Email: maccfin.utsc@utoronto.ca
Telephone: (416) 208-5098

Graduate Department of Management
University of Toronto Scarborough
1095 Military Trail
Toronto, Ontario M1C 1A4, Canada

Management, University of Toronto Scarborough: Graduate Faculty

Full Members
Franco, April - BPhil, MEc, PhD (Chair)

Associate Members
Ahmed, Syed - BCom, MA, MBA
Chau, Derek - BCom, MBA, PhD
Daga, Sandra - BA, MEd, CA, CGA
Harvey, Lisa - BBA, MAcc
Kong, Douglas - BBA, MBA (Academic Co-Director, Master of Accounting and Finance Program)
Mazaheri, Ataollah - BMath, MEC, PhD
McConkey, William - BSc, MBA

Program Requirements

Coursework. Students must complete 8.5 full-course-equivalents (FCEs)* as follows:

- Session 1: Summer
  - MAF1002H Strategy, Governance and Management Accounting (0.5 FCE)
  - MAF2001H Economics and Quantitative Methods (0.5 FCE)
  - MAF2002H Advanced Corporate Finance (0.5 FCE)
  - MAF2003H Investment Analysis and Portfolio Management I (0.5 FCE)
  - MAF3001H Leadership in the 21st Century (0.25 FCE)
  - MAF3003H Business Data Analytics (0.5 FCE)

- Session 2: Fall
  - MAF3002H Strategy, Governance and Management Accounting (0.5 FCE)
  - MAF3003H Economics and Quantitative Methods (0.5 FCE)
  - MAF3002H Advanced Corporate Finance (0.5 FCE)
  - MAF3003H Investment Analysis and Portfolio Management II (0.5 FCE)
  - MAF3001H Leadership in the 21st Century (0.25 FCE)
  - MAF3003H Business Data Analytics (0.5 FCE)

* Full-course-equivalents (FCE) are 36 hours of course work.
- MAF3005H Integration and Analysis: Critical Thinking and Decision Making I (0.25 FCE)
- MAF4001H Advanced Seminar in Accounting and Finance I (Credit/No Credit, 0.0 FCE)
- MAF5002H Finance Capstone Course I (Credit/No Credit, 0.0 FCE)

○ Session 2: Fall
  - MAF1001H Advanced Topics in Financial Reporting (0.5 FCE)
  - MAF1003H Advanced Topics in Assurance (0.5 FCE)
  - MAF1004H Advanced Taxation (0.5 FCE)
  - MAF2004H Financial Statement Analysis and Equity Valuation (0.5 FCE)
  - MAF2005H Derivatives (0.5 FCE)
  - MAF3002H Strategy, Business Development, and Sales (0.25 FCE)
  - MAF3006H Integration and Analysis: Critical Thinking and Decision Making II (0.25 FCE)
  - MAF5003H Finance Capstone Course II (Credit/No Credit, 0.0 FCE)

○ Session 3: Winter
  - MAF4000H Co-op Internship (0.5 FCE)

○ Session 4: Summer
  - MAF1005H Current Issues in Accounting and Assurance (0.5 FCE)
  - MAF2006H Investment Analysis and Portfolio Management II (0.5 FCE)
  - MAF2007H Fixed Income (0.5 FCE)
  - MAF4002H Advanced Seminar in Accounting and Finance II (Credit/No Credit, 0.0 FCE)
  - MAF5001H Technical Update in Financial and Management Accounting (Credit/No Credit, 0.0 FCE)
  - MAF5004H Integrated Case Writing (Credit/No Credit, 0.0 FCE)

* A final grade below 70% in any course equates to an FZ, which is an insufficient grade. A MAccFin student who receives a final grade of FZ will be recommended for termination of registration from the MAccFin program.

### Program Length

4 sessions full-time (typical registration sequence: S/F/W/S)

### Time Limit

3 years full-time

### Management, University of Toronto
Scarborough: Management MAccFin Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>MAF1001H</td>
<td>Advanced Topics in Financial Reporting</td>
</tr>
<tr>
<td>MAF1002H</td>
<td>Strategy, Governance and Management Accounting</td>
</tr>
<tr>
<td>MAF1003H</td>
<td>Advanced Topics in Assurance</td>
</tr>
<tr>
<td>MAF1004H</td>
<td>Advanced Taxation</td>
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<tr>
<td>MAF1005H</td>
<td>Current Issues in Accounting and Assurance</td>
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<tr>
<td>MAF2001H</td>
<td>Economics and Quantitative Methods</td>
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<td>MAF2002H</td>
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<td>MAF2003H</td>
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<td>MAF2004H</td>
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<td>MAF2007H</td>
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<td>MAF3001H</td>
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<tr>
<td>MAF3002H</td>
<td>Strategy, Business Development, and Sales</td>
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<td>MAF3003H</td>
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<td>MAF3004H</td>
<td>Integration and Analysis: Board Report</td>
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<td>MAF3005H</td>
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<td>MAF4000H</td>
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<tr>
<td>MAF4001H</td>
<td>Advanced Seminar in Accounting and Finance I (Credit/No Credit)</td>
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<tr>
<td>MAF4002H</td>
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<tr>
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<td>MAF5002H</td>
<td>Finance Capstone Course I (Credit/No Credit)</td>
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<tr>
<td>MAF5003H</td>
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<tr>
<td>MAF5004H</td>
<td>Integrated Case Writing (Credit/No Credit)</td>
</tr>
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Materials Science and Engineering

MSE: Introduction

Faculty Affiliation

Applied Science and Engineering

Degree Programs

Materials Science and Engineering

MASc

- Emphasis:
  - Sustainable Energy

MEng

- Emphases:
  - Advanced Manufacturing;
  - Advanced Soft Materials;
  - Advanced Water Technologies;
  - Analytics;
  - Biomanufacturing;
  - Engineering and Globalization;
  - Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE);
  - Forensic Engineering;
  - Sustainable Energy

PhD

- Emphasis:
  - Sustainable Energy

Collaborative Specializations

The following collaborative specialization is available to students in participating degree programs as listed below:

- **Biomedical Engineering**
  - Materials Science and Engineering, MASc, PhD

- **Neuromodulation**
  - Materials Science and Engineering, MASc, PhD

Overview

Climate change, energy availability, and resource depletion are today’s global challenges. The Department of Materials Science and Engineering (MSE) is at the forefront of addressing these issues. MSE's research, education, and applications expertise in advanced materials engineering enables the development of new and sustainable technologies, creating innovative solutions for the global environment. As a world leader in materials applications and processing, the department's commitment to excellence fosters innovative thinking in its students, leading to the development of brilliant minds and ideas that make a global impact.

MSE research and studies address the general problem of understanding structure-property-processing-performance relationships in materials. Materials science subjects focus on the structure, properties, and application of advanced materials in areas such as: Advanced Manufacturing & Coating Techniques; Adaptive Materials; Biomaterials & Biotechnology; Computational Materials Engineering; Electronic Materials & Systems; Materials Fracture & Failure; Nanomaterials & Nanotechnology; Optoelectronics; Photovoltaics; Process Metallurgy; Surface Engineering; and Sustainable Mineral & Materials Processing.

Leading-edge research facilities house 11 electron microscopy and surface characterization instruments in the Ontario Centre for the Characterization of Advanced Materials (OCCAM) and five new analytical instruments in the Walter Curlook Materials Characterization & Processing Laboratory, where graduate students learn from world-renowned researchers.

Contact and Address

Web: mse.utoronto.ca
Email: mse.graduate@utoronto.ca
Telephone: (416) 978-3012
Fax: (416) 978-4155

Department of Materials Science and Engineering
University of Toronto
Wallberg Building, Room 140, 184 College Street
Toronto, Ontario M5S 3E4
Canada

MSE: Graduate Faculty

Full Members

Azimi, Gisele - BASc, MASc, PhD
Barati Sedeh, Mansoor - BSc, MASc, PhD
Coyle, Tom - BS, BA, ScD
Grynpas, Marc - MSc, PhD
Hatton, Benjamin - BASc, MASc, PhD **(Associate Chair, Graduate Studies)**
Hattrick-Simpers, Jason - BS, PhD
Hibbard, Glenn - BASc, PhD **(Chair and Graduate Chair)**
Howe, Jane - PhD
Kherani, Nazir - BASc, MASc, PhD
Lu, Zheng-Hong - BSc, MSc, PhD
Matsuura, Naomi - ME, PhD
Naguib, Hani - BSc, ME, PhD, PEng
Nogami, Jun - BASc, MASc, PhD
Perovic, Doug - BASc, MASc, PhD
Ramsay, Scott - BASc, MASc, PhD
Ruda, Harry - BSc, PhD
Singh, Chandra Veer - BASc, MTech, PhD **(Associate Chair, Research)**
Sone, Eli - BSc, MS, PhD
Thorpe, Steven - BASc, MASc, PhD
von Lilienfeld Toal, Anatole - PhD
Wang, Zhirui - BEng, BEng, MASc, PhD
Zou, Yu - BASc, MASc, PhD

Members Emeriti

Erb, Uwe - MSc, PhD
Lian, Keryn - BE, MASc, MSc, PhD
Mclean, Alexander - BSc, PhD
Pilliar, Robert - BASc, PhD
Sommerville, Iain - BSc, PhD, ARCS
MSE: Materials Science and Engineering
MASc
Master of Applied Science

Program Description

The MASc program provides students with an opportunity to pursue advanced study and research with the guidance of experts in their respective fields. Studying in a chosen area of specialty and developing skills through hands-on experience in the MSE world-class labs provides students with the ability to either pursue PhD studies or to move out into industry with enriched skills and knowledge. This full-time program demands commitment and passion for research in materials engineering. For those interested in continuing to PhD-level research, successful completion of the MASc is the normal route.

Minimum Admission Requirements

- Students are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Materials Science and Engineering’s additional admission requirements stated below.
- For students whose primary language is not English, the department requires a Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL: minimum score of 580 and 4 on the Test of Written English (TWE)
  - Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

- **Coursework.** The program of study normally includes 2.0 full-course equivalents (FCEs) (four half courses), including:
  - MSE1000H, the mandatory weekly Graduate Research Seminar MASc (0.5 FCE)
  - Three half courses (1.5 FCEs), one of which must be chosen from the list of MSE graduate course offerings.
- JDE1000H *Ethics in Research*, a non-credit graduate ethics seminar (0.0 FCE).
- The required *thesis* is based upon research work carried out in the department. The thesis must be presented at an oral examination.
- Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

*Course that may continue over a program. The course is graded when completed.*

MSE: Materials Science and Engineering
MEng
Master of Engineering

Program Description

The MEng program has been developed for recent graduates who wish to pursue graduate-level studies but may not be interested in continuing to the PhD program. This program is also intended for working engineers who wish to augment their current knowledge and add to their credentials. The multidisciplinary nature of materials engineering and the coursework-only and coursework-plus-project options enable students to build personalized programs which best suit their individual interests and needs. The MSE MEng is recognized and respected by employers globally and can enhance and enrich the career opportunities of graduates.

The MEng program can be taken on a full-time, extended full-time, or part-time basis.

Full-Time Option

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Materials Science and Engineering’s additional admission requirements stated below.
- For students whose primary language is not English, the department requires a Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL: minimum score of 580 and 4 on the Test of Written English (TWE)
  - Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

- For students with adequate undergraduate preparation, the normal program will include **5.0 full-course equivalents (FCEs)** (10 half courses). A project may be substituted for 1.5 FCEs (3 half courses). Students enrolled in this option work in consultation with a professor who acts as advisor for the project undertaken. An oral presentation of the project may be required.
- Students normally complete the requirements in three sessions (one year).
- Full-time MEng students may transfer to the research-stream MASc program if they meet all of the following criteria:
  - The request to transfer must be submitted at the beginning of the second session of enrolment. For example, students enrolled in September must successfully complete 1.5 FCEs (3 half courses), technical courses of which at least one must be from MSE, with a B+ or 78% average. The technical courses taken during the MEng program will be credited toward the MASc program.
  - Have a supervisor who is willing to provide funding for an MASc research project starting in the second session of enrolment.
• Students have the option of completing an emphasis in Advanced Manufacturing; Advanced Soft Materials; Advanced Water Technologies; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Forensic Engineering; or Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length
3 sessions full-time (typical registration sequence: F/W/S);

Time Limit
3 years

Extended Full-Time Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Materials Science and Engineering's additional admission requirements stated below.

• For students whose primary language is not English, the department requires a Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  o Paper-based TOEFL: minimum score of 580 and 4 on the Test of Written English (TWE)
  o Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

• For students with adequate undergraduate preparation, the normal program will include 5.0 full-course equivalents (FCEs) (10 half courses). A project may be substituted for 1.5 FCEs (3 half courses). Students enrolled in this option work in consultation with a professor who acts as advisor for the project undertaken. An oral presentation of the project may be required.

• Students are expected to complete the requirements in six sessions (two years). They are limited to six half courses per year and three half courses per session.

• Full-time MEng students may transfer to the research-stream MASc program if they meet all of the following criteria:
  o The request to transfer must be submitted at the beginning of the second session of enrolment. For example, students enrolled in September must successfully complete 1.5 FCEs (three half courses), technical courses of which at least one must be from MSE, with a B+ or 78% average. The technical courses taken during the MEng program will be credited toward the MASc program.
  o Have a supervisor who is willing to provide funding for an MASc research project starting in the second session of enrolment.

• Students have the option of completing an emphasis in Advanced Manufacturing; Advanced Soft Materials; Advanced Water Technologies; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Forensic Engineering; or Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length
6 sessions (typical registration sequence: F/W/S/F/W/S)

Time Limit
3 years

Part-Time Option

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Materials Science and Engineering's additional admission requirements stated below.

• For students whose primary language is not English, the department requires a Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  o Paper-based TOEFL: minimum score of 580 and 4 on the Test of Written English (TWE)
  o Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

• For students with adequate undergraduate preparation, the normal program will include 5.0 full-course equivalents (FCEs) (10 half courses). A project may be substituted for 1.5 FCEs (3 half courses). Students enrolled in this option work in consultation with a professor who acts as advisor for the project undertaken. An oral presentation of the project may be required.

• Students are limited to four half courses per year and two half courses per session.

• Students normally complete the requirements in nine sessions (three years).

• Students have the option of completing an emphasis in Advanced Manufacturing; Advanced Soft Materials; Advanced Water Technologies; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE); Forensic Engineering; or Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length
9 sessions
Time Limit
6 years

MSE: Materials Science and Engineering PhD

Doctor of Philosophy

Program Description

Pursuing a PhD degree, the most advanced research degree in the Faculty of Applied Science and Engineering, can be a stepping stone to an academic career or to an industrial career which would benefit from in-depth applied research and research skills. Under the guidance of an accomplished supervisor, PhD students engage in original research that contributes to a variety of fields of study. Four years of PhD study allowing students to collaborate with local and international colleagues culminates in a written thesis which is presented orally and evaluated by experts. This is a degree program for outstanding students.

Applicants may enter the PhD program via one of three routes:
1) following successful completion of an MASc degree; 2) transfer from the University of Toronto MASc program to continue work that was begun at that level; or 3) direct entry following completion of an appropriate bachelor's degree.

The program can also be taken on a flexible-time basis.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Materials Science and Engineering (MSE)’s additional admission requirements stated below.
- Students are normally expected to have completed a master's-level program before entering the PhD program.
- For students whose primary language is not English, the department requires a Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL: minimum score of 580 and 4 on the Test of Written English (TWE)
  - Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

- The primary subject in a program will be extractive and process metallurgy, physical metallurgy, or materials science.
- Coursework. The program of study normally includes 2.0 full-course equivalents (FCEs) (four half courses), including the weekly Graduate Research Seminar, and a thesis. The coursework selected normally includes:
  - MSE2000H Graduate Research Seminar PhD (0.5 FCE).
  - Three half courses (1.5 FCEs), at least one of which must be chosen from the list of MSE graduate course offerings.

  - The departmental seminar, comprising a minimum of two seminars presented to the academic staff and students of MSE.
  - Students must complete the seminar JDE1000H Ethics in Research, a non-credit course (0.0 FCE).
  - A general Qualifying Examination must be scheduled and taken within 12 months of initial registration. In case of failure, one further attempt within 3 months is allowed, no later than within 15 months of initial registration. No further attempts are permitted. In order to take this examination, students must complete all required coursework except for the Graduate Research Seminar PhD.
  - The Qualifying Examination consists of:
    - A report (25 to 30 pages) of research to date, in the form of a dossier.
    - A presentation (20 to 25 minutes) summarizing research, with particular emphasis on providing a critical assessment of the literature in the field, a central hypothesis of thesis, proposed methodology, and recent experimental progress.
    - An oral examination, immediately following the presentation, by the Qualifying Examination committee who will ask the candidate questions pertaining to either the presented material, or related questions in materials science. The student is expected to have a working-level knowledge of the fundamentals of materials science as it pertains to the proposed area of research, and on a broader basis, at the level of a second-year undergraduate student in Materials Science.
  - The required thesis is based upon research work carried out in the department in the areas of extractive and process metallurgy, physical metallurgy, or materials science.
  - Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length
4 years

Time Limit
6 years

Course that may continue over a program. The course is graded when completed.

PhD Program (Transfer)

Transfer Requirements

- Very strong MASc students may apply to transfer to the PhD program after completing one year of the MASc program. Regulations governing such transfers are available in the MSE Graduate Studies office.

Program Requirements

- The primary subject in a program will be extractive and process metallurgy, physical metallurgy, or materials science.
Coursework. The program of study normally includes 2.5 full-course equivalents (FCEs), including the weekly Graduate Research Seminar PhD, and a thesis. The coursework selected normally includes:

- Three half courses (1.5 FCEs) from the MASc program.
- MSE2000H Graduate Research Seminar PhD (0.5 FCE).
- An additional 0.5 graduate FCE.

A general Qualifying Examination must be scheduled and taken within 12 months of initial registration. In case of failure, one further attempt within 3 months is allowed, no later than within 15 months of initial registration. No further attempts are permitted. In order to take this examination, students must complete all required coursework except for the Graduate Research Seminar PhD. The Qualifying Examination consists of:

- A report (25 to 30 pages) of research to date, in the form of a dossier.
- A presentation (20 to 25 minutes) summarizing research, with a particular emphasis on providing a critical assessment of the literature in the field, a central hypothesis of the thesis, proposed methodology, and recent experimental progress.
- An oral examination, immediately following the presentation, by the Qualifying Examination committee who will ask the candidate questions pertaining to either the presented material, or related questions in materials science. The student is expected to have a working-level knowledge of the fundamentals of materials science as it pertains to the proposed area of research, and on a broader basis, at the level of a second-year undergraduate student in Materials Science.

The required thesis is based upon research work carried out in the department in the areas of extractive and process metallurgy, physical metallurgy, or materials science.

Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length

5 years

Time Limit

7 years

Course that may continue over a program. The course is graded when completed.

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Materials Science and Engineering (MSE)'s additional admission requirements stated below.
- Exceptionally strong BASc students with an average grade of A– over the final four sessions of undergraduate studies (excluding Summer sessions in some cases) may be considered for direct entry to the PhD program.

For students whose primary language is not English, the department requires a Test of English as a Foreign Language (TOEFL) with the following minimum scores:

- Paper-based TOEFL: minimum score of 580 and 4 on the Test of Written English (TWE).
- Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements

The primary subject in a program will be extractive and process metallurgy, physical metallurgy, or materials science.

Coursework. The program of study normally includes 3.0 full-course equivalents (FCEs) (six half courses), including the weekly Graduate Research Seminar PhD, and a thesis. The coursework selected normally includes:

- MSE2000H Graduate Research Seminar PhD (0.5 FCE).
- Five half courses (2.5 FCEs), at least two of which must be chosen from the list of MSE graduate course offerings.

Students must complete the seminar JDE1000H Ethics in Research, a non-credit course (0.0 FCE).

A general Qualifying Examination must be scheduled and taken within 12 months of initial registration. In case of failure, one further attempt within 3 months is allowed, no later than within 15 months of initial registration. No further attempts are permitted. In order to take this examination, students must complete all required coursework except for the Graduate Research Seminar PhD. The Qualifying Examination consists of:

- A report (25 to 30 pages) of research to date, in the form of a dossier.
- A presentation (20 to 25 minutes) summarizing research, with particular emphasis on providing a critical assessment of the literature in the field, a central hypothesis of thesis, proposed methodology, and recent experimental progress.
- An oral examination, immediately following the presentation, by the Qualifying Examination committee who will ask the candidate questions pertaining to either the presented material, or related questions in materials science. The student is expected to have a working-level knowledge of the fundamentals of materials science as it pertains to the proposed area of research, and on a broader basis, at the level of a second-year undergraduate student in Materials Science.

The required thesis is based upon research work carried out in the department in the areas of extractive and process metallurgy, physical metallurgy, or materials science.

Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length

5 years

Time Limit

7 years

Course that may continue over a program. The course is graded when completed.
PhD Program (Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Materials Science and Engineering (MSE)'s additional admission requirements stated below.
- Students must have completed a master's-level program before entering the PhD program.
- For students whose primary language is not English, the department requires a Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL: minimum score of 580 and 4 on the Test of Written English (TWE)
  - Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.
- Applicants to the flexible-time PhD option are accepted under the same admission requirements as applicants to the full-time PhD option.

Program Requirements

- The primary subject in a program will be extractive and process metallurgy, physical metallurgy, or materials science.
- Students must complete 2.0 full-course equivalents (FCEs) (four half courses) as follows:
  - Year 1: 1.0 FCE plus the non-credit seminar JDE1000H Ethics in Research (0.0 FCE).
  - Year 2: 0.5 FCE. Prepare a research proposal and pass the Qualifying Examination.
  - Year 3: Present the first seminar for MSE200H Graduate Research Seminar PhD (0.5 FCE).
  - Year 4: Research and writing.
  - Year 5: Research and writing. Present the second seminar for MSE200H.
- Students in the flexible-time option are registered full-time during the first four years and part-time during subsequent years in the program.
- The general Qualifying Examination must be scheduled and taken within 12 months of initial registration. In case of failure, one further attempt within 3 months is allowed, no later than within 15 months of initial registration. No further attempts are permitted. In order to take this examination, students must complete all required coursework except for the Graduate Research Seminar PhD. The Qualifying Examination consists of:
  - A report (25 to 30 pages) of research to date, in the form of a dossier.
  - A presentation (20 to 25 minutes) summarizing research, with particular emphasis on providing a critical assessment of the literature in the field, a central hypothesis of thesis, proposed methodology, and recent experimental progress.
  - An oral examination, immediately following the presentation, by the Qualifying Examination committee who will ask the candidate questions pertaining to either the presented material, or related questions in materials science. The student is expected to have a working-level knowledge of the fundamentals of materials science as it pertains to the proposed area of research, and on a broader basis, at the level of a second-year undergraduate student in Materials Science.
- The required thesis is based upon research work carried out in the department in the areas of extractive and process metallurgy, physical metallurgy, or materials science.
- Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Materials Science and Engineering MASc, MEng, PhD Emphases section.

Program Length

6 years

Time Limit

8 years

Course that may continue over a program. The course is graded when completed.

MSE: Materials Science and Engineering

MASc, MEng, PhD Emphases

Emphasis: Advanced Manufacturing (MEng only)

MEng students must successfully complete:

- Four half courses (2.0 full-course equivalents [FCEs]), including at least one core course.
- Elective courses may include other core courses, and courses from either of two streams: Manufacturing Engineering and Manufacturing Management.

Core Courses

- AER501H1 Computational Structural Mechanics and Design Optimization
- AER1403H Advanced Aerospace Structures
- APS1028H Operations and Production Management for Manufacturing and Services
- CHE1123H Liquid Biofuels
- MSE1015H Advanced Manufacturing Technologies
- MSE1740H Smart Materials and Structures.

Elective Courses — Manufacturing Engineering


Elective Courses — Manufacturing Management

Emphasis: Advanced Soft Materials (MEng only)

MEng students must successfully complete any four half courses (2.0 full-course equivalents [FCEs]) from the following list:


Students may double-count one course at most towards any MSE emphasis, or towards any other emphasis in the Faculty.

Emphasis: Advanced Water Technologies (MEng only)

MEng students must successfully complete a total of 2.0 full-course equivalents (FCEs) (four half courses).

Core Courses

Students must select at least one of the following (0.5 FCE):

- CHE1150H Industrial Water Technology
- CIV1308H Physical and Chemical Treatment Processes
- CIV1309H Biological Treatment Processes
- CIV1311H Advanced and Sustainable Drinking Water Treatment

Students may select an additional course (0.5 FCE) from the list above, or they must select one (0.5 FCE) of the following:

- CEM549H1 Groundwater Flow and Contamination
- CHE565H1 Aqueous Process Engineering
- CIV541H1 Environmental Biotechnology
- CIV550H1 Water Resources Engineering
- CIV1303H Water Resources Systems Modeling
- CIV1319H Chemistry and Analysis of Water and Wastes
- CIV1330H Water, Sanitation, Hygiene, and Global Health
- CIV1398H New Topics in Civil and Mineral Engineering
- CME500H1 Fundamentals of Acid Rock Drainage.

Specialization Courses

Students must select the remaining balance of courses (1.0 FCE) from the following, or from any of the core courses listed above:

- CHE1213H Corrosion
- CHE1430H Hydrometallurgy Theory and Practice
- JCC1313H Environmental Microbiology
- JNC2503H Environmental Pathways
- STA1004H Introduction to Experimental Design.

Enrolment and Completion

Students should contact Alison Morley (meng.civmin@utoronto.ca) to declare their interest, so that they can be notified of water engineering-related events and extracurricular activities.

To receive acknowledgment of the emphasis on their transcript, it is the student's responsibility to declare completion of the emphasis to their home department's graduate program administrator at the same time that they are requesting convocation. The student may also reach out to meng.civmin@utoronto.ca to confirm the completion of the emphasis.

Emphasis: Analytics (MEng only)

To be admitted to the emphasis in Analytics, MEng students must first successfully complete a prerequisite course APS1070H (0.5 full-course equivalent [FCE]).

Subsequently, to earn the emphasis, students must successfully complete four additional half courses (2.0 FCEs) from the list of core courses or elective courses. These must include at least one core course; the remaining courses must be selected from the list of elective courses.

Students must have completed the prerequisite course APS1070H before taking any of the core courses.

Prerequisite Course

APS1070H Foundations of Data Analytics and Machine Learning.

Core Courses

CHE1147H Data Mining in Engineering
ECE1513H Introduction to Machine Learning (exclusions: CSC411H1, CSC2515H, ECE421H, ECE1504H)
MIE1624H Introduction to Data Science and Analytics (exclusion: MIE1626H)
MIE1626H Data Science Methods and Statistical Learning (exclusion: MIE 1624H)
MSE1065H Application of Artificial Intelligence in Materials Design (exclusion: MSE1063H).

Elective Courses

Emphasis: Biomanufacturing (MEng only)

MEng students must successfully complete any four half courses (2.0 full-course equivalents [FCEs]) from the following list:


Students may double-count one course at most towards any MSE emphasis, or towards any other emphasis in the Faculty.

Emphasis: Engineering and Globalization (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) from the following lists, with at least two half courses (or one full course) taken from Group A.

Group A

APS510H1, APS530H1, APS1420H, JCR1000Y (full-year course).

Group B

APS1015H, APS1020H, APS1024H, CHL5700H, CIV1399H.

Note: Students who choose to pursue an MEng project in their home department that aligns with the Centre for Global Engineering (CGEN)’s disciplinary focus, as deemed by the CGEN Director, may count the project as one required Group B course.

Students who complete the requirements of the emphasis in Engineering and Globalization and wish to obtain a notation on their transcript should contact the Faculty Graduate Studies office.

Emphasis: Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) (MEng only)

MEng students must successfully complete any four of the following courses (2.0 full-course equivalents [FCEs]):

Leadership


Entrepreneurship and Innovation

APS511H1, APS1012H, APS1013H, APS1015H, APS1023H, APS1033H, APS1035H, APS1036H, APS1041H, APS1061H, APS1088H.

Emphasis: Sustainable Energy (MASc, MEng, PhD)

MASc and PhD students must successfully complete:

• At least three half courses (1.5 full-course equivalents [FCEs]) from either of the following lists below.
• A thesis towards their degree on a topic related to sustainable energy. Topics must be approved by the steering committee of the Institute of Sustainable Energy. Contact: emphasis@cpe.utoronto.ca.

MEng students must successfully complete:

• Four half courses (2.0 FCEs) from either of the following lists below, including at least one core course (0.5 FCE).

Finance and Management


Engineering and Society

APS510H1, APS1018H, APS1024H, APS1025H, APS1031H, APS1034H, APS1101H, APS1420H.

Emphasis: Forensic Engineering (MEng only)

MEng students must successfully complete four courses (one core course and three elective courses; 2.0 full-course equivalents [FCEs]).

Core Course

MSE1031H Forensic Engineering.

Elective Courses

Core Courses

APS1032H Introduction to Energy Project Management
MIE515H1 Alternative Energy Systems
MIE1120H Current Energy Infrastructure and Resources.

Elective Courses

AER507H1, AER1304H, AER1315H, AER1415H,
CHE568H1, CHE1053H, CHE1118H, CHE1123H, CHE1142H,
CHE1143H, CIV575H1, CIV576H1, CIV577H1, CIV1303H, CIV1307H,
ECE1030H, ECE1055H, ECE1057H, ECE1059H, ECE1085H,
ECE1086H, ECE1092H, ECE1094H, ECE1476H,
MIE516H1, MIE517H1, MIE1128H, MIE1129H, MIE1130H,
MIE1240H, MIE1241H, MIE1715H,
MSE1023H, MSE1028H, MSE1058H.

Contact

All students are asked to register with Climate Positive Energy (CPE) at emphasis@cpe.utoronto.ca, at the beginning of their studies, to receive information about energy-related activities and opportunities on campus. CPE also administers a number of awards and scholarships for which students may be eligible.

MSE: Materials Science and Engineering

MASc, MEng, PhD Courses

A schedule is available on the MSE website at the beginning of the Fall session, listing the time and room location for each course offered in MSE in both the Fall and Winter sessions.

Not all courses are offered every year. Please consult the department for a listing of courses being offered this year.

All students wishing to undertake graduate research in the Department of Materials Science and Engineering must successfully complete a two-day intensive occupational health and safety training program which will normally take place during the week immediately preceding the commencement of graduate courses. More details concerning this course will be provided by the Coordinator of Graduate Studies once admission to a graduate program has been confirmed.

After the initial safety training, all students are required to pass refresher safety training annually.

Materials Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE1000H</td>
<td>Graduate Research Seminar MASc</td>
</tr>
<tr>
<td>MSE1022H</td>
<td>Special Topics in Materials Science I</td>
</tr>
<tr>
<td>MSE1023H</td>
<td>Special Topics in Materials Science II</td>
</tr>
<tr>
<td>MSE1024H</td>
<td>Interface and Nanophase Engineering</td>
</tr>
<tr>
<td>MSE1026H</td>
<td>Analytical Electron Microscopy</td>
</tr>
<tr>
<td>MSE1028H</td>
<td>Advanced Materials Science</td>
</tr>
</tbody>
</table>

MSE1031H Forensic Engineering
MSE1032H Polymers and Composites Engineering
MSE1034H Directed Readings in Materials Science and Engineering I
MSE1035H Optical and Photonic Materials
MSE1036H Application of Electrochemical Techniques in Materials Science
MSE1037H Process Metallurgy of Iron and Steel
MSE1038H Computational Materials Design
MSE1043H Composite Materials Engineering
MSE1044H Directed Readings in Materials Science and Engineering II
MSE1058H Nanotechnology in Alternate Energy Systems
MSE1061H Engineered Ceramics
MSE1062H Materials Physics
MSE1063H Application of Artificial Intelligence in Process Metallurgy (prerequisites: basic knowledge of R and Python; exclusion: MSE1065H)
MSE1064H Extraction, Production, and Processing of Aluminum
MSE1065H Application of Artificial Intelligence in Materials Design (prerequisites: basic knowledge of R and Python and materials science; exclusion: MSE1063H)
MSE1066H Practical Aspects of Electron Microscopy
MSE1067H Damage and Failure of Advanced Engineering Materials (prerequisites: basic knowledge of materials science, mechanics of materials, and fracture mechanics)
MSE1068H Additive Manufacturing of Metals, Ceramics, and Composites (prerequisites: basic knowledge of materials science, especially phase transformation and mechanical behaviour of materials)
MSE2000H Graduate Research Seminar PhD
MSE3000Y MEng Project
APS1012H Managing Business Innovation and Transformational Change
APS1043H Writing Your Own Patent Application
JMB1050H Biological and Bio-inspired Materials
JMZ1704H Polymer Process Engineering
JTC1020H Ceramics
JTC1135H Applied Surface Chemistry

0 Course that may continue over a program. The course is graded when completed.
Mathematical Finance

Mathematical Finance: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Mathematical Finance

MMF

Overview

Financial engineering is one of the fastest-growing areas of applied mathematics.

Contact and Address

Web: www.mmf.utoronto.ca
Email: math.finance@utoronto.ca
Telephone: (416) 946-5206

Mathematical Finance Program
University of Toronto
Suite 17030, 700 University Avenue
Toronto, Ontario M5G 125
Canada

Mathematical Finance: Graduate Faculty

Full Members

Feuerverger, Andrey - BSc, PhD
Jackson, Kenneth - BSc, MSc, PhD
Jaimungal, Sebastian - BSc, MSc, PhD
Kwon, Roy - BA, MS, MSc, PhD
McCurdy, Tom - BA, MA, PhD
Seco, Luis - PhD

Associate Members

Kreinin, Alexander - MSc, PhD
Pilling, Jason - BSc, MMF
Rosen, Dan - BASc, MASc, PhD
Rubisov, Dmitri - ME, PhD
Tuenter, Johan - BSc, MSc, PhD

Mathematical Finance: Mathematical Finance MMF

Master of Mathematical Finance

Program Description

In the MMF program, students reshape their existing analytical abilities with the help of senior academics in mathematics, computer science, statistics, and engineering who have experience with the tools of mathematical finance. This cross-disciplinary approach develops graduates with a richer, more innovative approach to applied mathematics in real-world situations. Some of the faculty are seasoned practitioners from the financial industry while others are from leading firms in the financial software industry, developing applications around requirements like risk management, portfolio analysis, and the pricing of advanced derivatives.

The heart of the program is the four-month internship or campus project. Working on real financial projects, students learn to integrate and apply theoretical knowledge gained earlier in the program. In the internship, students team up with employees of the sponsoring firm to experience how financial mathematics impacts the decision-making processes of a financial services organization.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the graduate unit's additional admission requirements stated below.
- Applicants must have an appropriate bachelor's degree in a quantitative, technical discipline with a minimum of a mid-B standing in the final two years.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction was not English must demonstrate proficiency in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with minimum scores as follows:
  - paper-based TOEFL exam: 580 and 5 on the Test of Written English (TWE)
  - Internet-based TOEFL exam: 93/120 and 22/30 on the writing and speaking sections
- Applicants must also show evidence of strong mathematical ability. Appropriate workplace experience will be considered in lieu of formal education.
- Admission to the program is competitive. Those accepted into the program will normally have achieved a standing considerably higher than the minimum mid-B standing or have demonstrated exceptional ability through appropriate workplace experience.
- Applicants must satisfy the Admissions Committee of their ability to do rigorous quantitative analysis at an advanced level. The broad background required for this program makes it likely that many strong applicants will not possess all the background requirements. It is expected that applicants will have extra depth in certain areas and need to do additional work in others. Admission may be conditional upon the applicant's satisfactory completion of the required background material.
- Applicants should submit a written statement of approximately 300 words outlining their objectives for entering the program. Applicants should also explain how their background is appropriate. An interview may be required.
- Inquiries about part-time options for the program should be addressed to the Program Director.
Program Requirements

- The program of study begins in mid-August and includes a four-month internship during the second session. Students will be responsible for obtaining their own internship. In cases where the student is taking a leave of absence from an appropriate job, it is expected that the student will return to this job for the internship. In all cases, the Director must approve the placement.
- Students will proceed through the program as a group, following a common course of study. The course of study will be fully integrated and computer-laboratory intensive. Course projects and assignments will be designed to integrate the material learned from a variety of the courses and to utilize it in a practical context. Excellent communication and presentation skills will be emphasized in both the oral and written components of the projects.
- Students must complete all required courses listed below.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Mathematical Finance: Mathematical Finance MMF Courses

Courses are offered in modules. A module will consist of a four-week unit with a minimum of three contact hours per week, or its equivalent. A large portion of the learning for the module will take place outside of class through carefully designed computer projects and group study. The courses have been packaged in units of one, two, three, four, or five modules, and the course weight will be equal to the number of modules; for example, a course with three modules will have a weight of three credit hours. Six modules will be considered the equivalent of one full-course equivalent in a standard format. The third digit of the four-digit course number determines the course weight.

Third Digit Notation

1 = one-third of a half course
2 = two-thirds of a half course
3 = one half course
4 = two-thirds of a full course
5 = one full course

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMF1900Y</td>
<td>Internship (Credit/No Credit)</td>
</tr>
<tr>
<td>MMF1910H</td>
<td>Introduction to Financial Industry (Credit/No Credit)</td>
</tr>
<tr>
<td>MMF1914H</td>
<td>Information Technology (Credit/No Credit)</td>
</tr>
</tbody>
</table>

Additional Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMF1915H</td>
<td>Introduction to Financial Products (Credit/No Credit)</td>
</tr>
<tr>
<td>MMF1926H</td>
<td>Workshop in Mathematical Finance</td>
</tr>
</tbody>
</table>

\(^{0}\) Course that may continue over a program. The course is graded when completed.
Mathematics

Mathematics: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Mathematics

MSc and PhD

Overview

The Department of Mathematics is a distinguished Faculty of more than 60 mathematicians, offering research opportunities in the areas of pure mathematics and applied mathematics. Faculty areas of research include, but are not limited to, real and complex analysis, harmonic analysis, non-linear analysis, several complex variables, functional analysis, operator theory, C*-algebras, ergodic theory, group theory, analytic and algebraic number theory, Lie groups and Lie algebras, automorphic forms, commutative algebra, algebraic geometry, singularity theory, differential geometry, symplectic geometry, classical synthetic geometry, algebraic topology, set theory, set-theoretic topology, mathematical physics, fluid mechanics, probability, combinatorics, optimization, control theory, dynamical systems, computer algebra, cryptography, and mathematical finance.

Contact and Address

Web: www.mathematics.utoronto.ca
Email: gradinfo@math.toronto.edu
Telephone: (416) 978-7894
Fax: (416) 978-4107

Department of Mathematics
University of Toronto
Room 6290, 40 St. George Street
Toronto, Ontario M5S 2E4
Canada

Mathematics: Graduate Faculty

Full Members

Alexakis, Spyridon - BA, PhD
Aretakis, Stefanos - MA, PhD
Arthur, James - BSc, MSc, PhD
Bar-Natan, Dror - BSc, PhD
Bierstone, Edward - BSc, MA, PhD
Binder, Ilia - PhD
Bland, John - BSc, MSc, PhD
Braverman, Alexander - BSc, PhD
Bremer Jr., James - BSc, BSc, PhD
Burchard, Almut - MS, PhD
De Simoi, Jacopo - PhD
Elliott, George - BSc, MSc, PhD
Friedlander, John - BSc, BS, MA, PhD
Graham, Ian - BSc, ScD
Gualtieri, Marco - BSc, DPhil
Hashofer, Robert - BSc, MSc, PhD
Herzig, Florian - BA, PhD
Ingram, Patrick - PhD
Ivrii, Victor - MA, PhD, DSc
Jeffrey, Lisa - BA, MA, PhD
Jerrard, Robert - AB, PhD (Chair and Graduate Chair)
Kamnitzer, Joel - BMath, PhD
Kapovitch, Vitali - BS, PhD
Karshon, Yael - PhD
Khanin, Konstantin - PhD
Khesin, Boris - MS, PhD
Khovanski, Askold - MS, PhD, DSc
Kim, Henry - BSc, PhD
Kopparthy, Swastik - BS, MS, PhD
Kudla, Stephen - BA, MA, PhD
Litt, Daniel - PhD
Marcolli, Matilde - MS, PhD
McCann, Robert - BS, PhD
Meinrenken, Eckhard - PhD
Milman, Pierre - MA, PhD
Murty, Vijayakumar - BSc, PhD
Nabutovsky, Alexander - MSc, PhD
Nachman, Adrian - BSc, MA, PhD
Panchenko, Dmitriy - MSc, PhD
Pugh, Mary - BA, MS, PhD
Quastel, Jeremy - BSc, MS, PhD
Rafi, Kasra - BSc, PhD
Repka, Joe - BSc, PhD
Rosenthal, Jeffrey - BSc, AM, PhD, FRSC
Rossman, Benjamin - BA, MA, PhD
Rotman, Regina - BA, PhD
Scherk, John - BSc, MSc, DPhil
Seco, Luis - PhD
Shankar, Arul - BSc, PhD
Sigal, Israel Michael - BA, PhD
Sulem, Catherine - MMath, PhD
Tanny, Stephen - BSc, PhD
Tiozzo, Giulio - BA, MA, PhD
Todorcevic, Stevo - PhD
Tsimerman, Jacov - BSc, PhD
Uriarte-Tuero, Ignacio - BS, MSc, PhD (Associate Chair - Graduate)
Virag, Balint - BA, MA, PhD
Weiss, William - BSc, MSc, PhD
Yampolsky, Michael - DPhil
Zhang, Ke - BS, PhD

Members Emeriti

Akcoglu, Mustafa - MSc, PhD
Andrews, David - BSc, MSc, PhD
Bloom, Thomas - BSc, MA, PhD
Ellers, Erich - DrRerNat, DrRerNat
Halperin, J. Stephen - BSc, MSc, PhD, FRSC
Jurdjevic, Velimir - BS, MS, PhD
Kupka, Ivan - BSc, PhD, PhD
McCool, James - BSc, PhD
Murasugi, Kunio - BSc, DSc
Murnaghan, Fiona - BSc, MSc, PhD
Sen, Dipak - MSc, DSc
Sharpe, Richard - BSc, MA, PhD
Smith, Stuart - BSc, PhD
Tall, Franklin - AB, PhD
Associate Members

Ashraf, Ahmed Umer - BS, MSc, PhD
Dauvergne, Duncan - BSc, MSc, PhD
Groechenig, Michael - BSc, PhD
Kupers, Alexander - BSc, MSc, PhD
Landon, Benjamin Christopher - BSc, MSc, PhD
Olano Espinosa, Sebastian - PhD
Pusateri, Fabio Giuseppe - BS, MS, PhD
Shlapentokh-Rothman, Yakov - BS, PhD
Unger, Spencer - BA, MA, PhD
Zaman, Asif Ali - BSc, MSc, PhD

Mathematics: Mathematics MSc

Master of Science

Program Description

The MSc is a research-oriented program. Opportunities for graduate study and research are available in most of the main areas of pure and applied mathematics. There is a large selection of graduate courses and seminars, a diverse student body of domestic and international students, and yet classes are small and the ratio of graduate students to faculty is low.

Many recent graduates are engaged in university teaching, and a significant number hold administrative positions in universities or in the professional communities. Others are pursuing careers in industry (technological or financial) or in government.

The MSc program is offered:

- for students with a complete undergraduate background in mathematics:
  o 12 months full-time
  o 24 months part-time

- for students who do not have a complete undergraduate background in mathematics. This option is not available on a part-time basis:
  o 16 months full-time
  o 24 months full-time

Provisional admission to the PhD program may be granted at the time of admission to the master's program.

MSc Program (12-Month Full-Time and 24-Month Part-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mathematics' additional admission requirements stated below.
- Evidence of an excellent academic background and mathematical ability.

Program Requirements

- Students must complete the program in one of two ways:
  o 3.0 approved full-course equivalents (FCEs) and a supervised research project (MAT4000Y), or its equivalent, or
  o 2.0 approved FCEs and an acceptable thesis. Two approved half-year courses are considered the equivalent of a full-year course.

- With approval, two prerequisite undergraduate half courses can be substituted for 0.5 graduate FCE.

- Students may, with approval, take courses outside the department as part of a coherent program.

- Students who undertake the MSc part-time must, at a minimum, satisfy the requirements of the 12-month program.

- Students who plan to continue to the PhD program may select 2.0 FCEs in core courses from the approved list in the PhD program requirements section. Students who obtain a grade of A– or higher in each of the corresponding core courses may count coursework towards the PhD comprehensive examination requirement in the particular subject areas.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

MSc Program (16-Month Full-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mathematics' additional admission requirements stated below.

Program Requirements

- Students must complete the program full-time in one of two ways:
  o 3.0 approved full-course equivalents (FCEs) and a supervised research project (MAT4000Y), or its equivalent, or
  o 2.0 approved FCEs and an acceptable thesis. Two approved half-year courses are considered the equivalent of a full-year course.

- With approval, two prerequisite undergraduate half courses can be substituted for 0.5 graduate FCE.

- Students may, with approval, take courses outside the department as part of a coherent program.

- Students who undertake the MSc part-time must, at a minimum, satisfy the requirements of the 12-month program.

- Students who plan to continue to the PhD program may select 2.0 FCEs in core courses from the approved list in the PhD program requirements section. Students who obtain a grade of A– or higher in each of the corresponding core courses may count coursework towards the PhD comprehensive examination requirement in the particular subject areas.
- Students must also complete an approved selection of prerequisites and other courses: an additional 2.0 FCEs in Year 2, 3, or 4 undergraduate courses in any of the following subjects: algebra, analysis, partial differential equations, probability, and topology.
- With approval, two prerequisite undergraduate half courses can be substituted for 0.5 graduate FCE.
- Students may, with approval, take courses outside the department as part of a coherent program.
- Students who plan to continue to the PhD program may select 2.0 FCEs in core courses from the approved list in the PhD program requirements section. Students who obtain a grade of A– or higher in each of the corresponding core courses may count coursework towards the PhD comprehensive examination requirement in the particular subject areas.

**Program Length**

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

**Time Limit**

3 years full-time

**Mathematics: Mathematics PhD**

**Doctor of Philosophy**

**Program Description**

The PhD is a research-oriented program consisting of coursework, comprehensive examinations, and a thesis embodying the results of original research. Opportunities for graduate study and research are available in most of the main areas of pure and applied mathematics.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate MA or 2) direct entry following completion of a bachelor’s degree.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mathematics’ additional admission requirements stated below.
- A master’s degree from a recognized university. Students must satisfy the department of their ability to do independent research at an advanced level. They must show evidence of an excellent academic background and mathematical ability.

**Program Requirements**

- Coursework. Students must successfully complete at least 3.0 full-course equivalents (FCEs). Out of the following 12 core courses, students must complete 6 courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT1000H</td>
<td>Real Analysis I</td>
</tr>
</tbody>
</table>
**Program Requirements**

- **Coursework.** Students must complete at least 4.0 full-course equivalents (FCEs). Out of the following 12 core courses, students must complete 6 courses (3.0 FCEs). Students must also complete 1.0 elective FCE.

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT1000H</td>
<td>Real Analysis I</td>
</tr>
<tr>
<td>MAT1001H</td>
<td>Real Analysis II</td>
</tr>
<tr>
<td>MAT1002H</td>
<td>Complex Analysis</td>
</tr>
<tr>
<td>MAT1060H</td>
<td>Partial Differential Equations I</td>
</tr>
<tr>
<td>MAT1061H</td>
<td>Partial Differential Equations II</td>
</tr>
<tr>
<td>MAT1100H</td>
<td>Algebra I</td>
</tr>
<tr>
<td>MAT1101H</td>
<td>Algebra II</td>
</tr>
<tr>
<td>MAT1300H</td>
<td>Topology I</td>
</tr>
<tr>
<td>MAT1301H</td>
<td>Topology II</td>
</tr>
<tr>
<td>MAT1600H</td>
<td>Mathematical Probability I</td>
</tr>
<tr>
<td>MAT1601H</td>
<td>Mathematical Probability II</td>
</tr>
<tr>
<td>MAT1850H</td>
<td>Linear Algebra and Optimization</td>
</tr>
</tbody>
</table>

- **Comprehensive examinations.**
  - Students must pass comprehensive examinations in basic mathematics before beginning an area of research. These examinations are scheduled at the start of the Fall session (usually September) and should be taken no later than the start of the third session.
  - Students who obtain a grade of A– or higher in each of the corresponding core courses for the general areas of mathematics will be exempted from the comprehensive examination requirement in the specific area of study.

- **Students must pass a qualifying oral examination or give a seminar presentation in their particular area of study before embarking on serious thesis research.**

- **The main requirement of the degree is an acceptable thesis embodying original research of a standard that warrants publication in the research literature.**

**Program Length**

- **4 years**

**Time Limit**

- **6 years**

**PhD Program (Direct-Entry)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mathematics' additional admission requirements stated below.
- Exceptionally strong BSc students with a grade point average (GPA) of 3.7 or higher may apply for direct admission to the PhD program. Students must satisfy the department of their ability to do independent research at an advanced level. They must show evidence of an excellent academic background and mathematical ability.

**Program Length**

- **5 years**

**Time Limit**

- **7 years**
Mathematics: Mathematics MSc, PhD

Courses

Each year the department offers a selection of courses chosen from the following list, with the possibility of further additions. The courses MAT1000H, 1001H, 1100H, 1101H, 1300H, 1301H, 1600H, and 1601H will be offered each year; the complete list of courses is available from the department. In addition, it may be possible for a student to arrange to take one of the listed courses as an individual reading course. Students should consult the office of the coordinator at the beginning of the academic year.

PhD students are expected to attend and contribute to seminars in the research areas.

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MAT1000H</td>
<td>Real Analysis I</td>
</tr>
<tr>
<td>MAT1001H</td>
<td>Real Analysis II</td>
</tr>
<tr>
<td>MAT1002H</td>
<td>Complex Analysis</td>
</tr>
<tr>
<td>MAT1004H</td>
<td>Theory of Approximation</td>
</tr>
<tr>
<td>MAT1005H</td>
<td>Fourier Analysis</td>
</tr>
<tr>
<td>MAT1006H</td>
<td>Topics in Real Analysis</td>
</tr>
<tr>
<td>MAT1007H</td>
<td>Topics in Complex Variables</td>
</tr>
<tr>
<td>MAT1008H</td>
<td>Functions of a Complex Variable</td>
</tr>
<tr>
<td>MAT1010H</td>
<td>Functional Analysis</td>
</tr>
<tr>
<td>MAT1011H</td>
<td>Introduction to Linear Operators</td>
</tr>
<tr>
<td>MAT1012H</td>
<td>Real Analysis II</td>
</tr>
<tr>
<td>MAT1013H</td>
<td>Theory of Several Complex Variables II</td>
</tr>
<tr>
<td>MAT1015H</td>
<td>Topics in Operator Theory</td>
</tr>
<tr>
<td>MAT1016Y</td>
<td>Topics in Operator Algebras</td>
</tr>
<tr>
<td>MAT1017H</td>
<td>Introduction to K-theory for Operator Algebras</td>
</tr>
<tr>
<td>MAT1034H</td>
<td>Topics in Harmonic Analysis</td>
</tr>
<tr>
<td>MAT1037H</td>
<td>Von Neumann Algebras</td>
</tr>
<tr>
<td>MAT1045H</td>
<td>Topics in Ergodic Theory</td>
</tr>
<tr>
<td>MAT1051H</td>
<td>Introduction to Ordinary Differential Equations</td>
</tr>
<tr>
<td>MAT1060H</td>
<td>Partial Differential Equations I</td>
</tr>
<tr>
<td>MAT1061H</td>
<td>Partial Differential Equations II</td>
</tr>
<tr>
<td>MAT1062H</td>
<td>Topics in Partial Differential Equations I</td>
</tr>
<tr>
<td>MAT1064H</td>
<td>Elliptic Boundary Value Problems on Nonsmooth Domains</td>
</tr>
<tr>
<td>MAT1100H</td>
<td>Algebra I</td>
</tr>
<tr>
<td>MAT1101H</td>
<td>Algebra II</td>
</tr>
<tr>
<td>MAT1103H</td>
<td>Topics in Algebra I</td>
</tr>
<tr>
<td>MAT1104H</td>
<td>Topics in Algebra II</td>
</tr>
<tr>
<td>MAT1105H</td>
<td>Topics in Representation Theory</td>
</tr>
<tr>
<td>MAT1109H</td>
<td>Classical Groups</td>
</tr>
<tr>
<td>MAT1110H</td>
<td>Algebraic Groups</td>
</tr>
<tr>
<td>MAT1120H</td>
<td>Lie Groups and Lie Algebras I</td>
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<tr>
<td>MAT1126H</td>
<td>Lie Groups and Fluid Dynamics</td>
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<td>MAT1128H</td>
<td>Topics in Probability</td>
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<tr>
<td>MAT1155H</td>
<td>Commutative Algebra</td>
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<tr>
<td>MAT1190H</td>
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<tr>
<td>MAT1191H</td>
<td>Topics in Algebraic Geometry</td>
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<td>MAT1192H</td>
<td>Advanced Topics in Algebraic Geometry</td>
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<tr>
<td>MAT1196H</td>
<td>Representation Theory</td>
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<tr>
<td>MAT1197H</td>
<td>Automorphic Forms and Representation Theory I</td>
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<tr>
<td>MAT1198H</td>
<td>Automorphic Forms and Representation Theory II</td>
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<tr>
<td>MAT1199H</td>
<td>Automorphic Forms</td>
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<tr>
<td>MAT1200H</td>
<td>Algebraic Number Theory</td>
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<td>MAT1202H</td>
<td>Analytic Number Theory</td>
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<tr>
<td>MAT1203H</td>
<td>Computational Aspects of Number Theory</td>
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<td>MAT1210H</td>
<td>Topics in Number Theory</td>
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<td>MAT1300H</td>
<td>Differential Topology</td>
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<td>MAT1301H</td>
<td>Algebraic Topology</td>
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<td>MAT1302H</td>
<td>Combinatorial Methods</td>
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<td>MAT1303H</td>
<td>Combinatorial Designs</td>
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<tr>
<td>MAT1304H</td>
<td>Topics in Combinatorics</td>
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<td>MAT1305H</td>
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<td>MAT1306H</td>
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<td>MAT1309H</td>
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<td>MAT1312H</td>
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<td>Seminar in Geometry</td>
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<td>MAT1318H</td>
<td>Seminar in Geometry and Topology</td>
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<td>MAT1340H</td>
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<td>Topics in Differential Geometry</td>
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<td>MAT1342H</td>
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<td>MAT1343H</td>
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<td>Symplectic Geometry</td>
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<td>Topics in Symplectic Geometry and Topology</td>
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<td>MAT1355H</td>
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<td>Moduli Spaces of Flat Connections</td>
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<td>MAT1360H</td>
<td>Complex Manifolds</td>
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<td>MAT1392H</td>
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<td>MAT1399H</td>
<td>Advanced Point Set Topology</td>
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<td>MAT1403H</td>
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<td>MAT1404H</td>
<td>Introduction to Model Theory and Set Theory</td>
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<td>MAT1430H</td>
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<td>MAT1435H</td>
<td>Topics in Set Theory</td>
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<td>MAT1449H</td>
<td>Seminar in Foundations</td>
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<td>MAT1498H</td>
<td>Communicating Mathematics to a General Audience</td>
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<td>MAT1499H</td>
<td>Teaching Large Mathematics Courses</td>
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Applied Mathematics

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<td>MAT1502H</td>
<td>Topics in Geometric Analysis</td>
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<td>MAT1507H</td>
<td>Asymptotic and Perturbation Methods</td>
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<td>MAT1508H</td>
<td>Techniques of Applied Mathematics</td>
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<td>MAT1509H</td>
<td>Mathematical and Computational Linguistics</td>
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<tr>
<td>MAT1520H</td>
<td>Wave Propagation</td>
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<tr>
<td>MAT1525H</td>
<td>Topics in Inverse Problems and Image Analysis</td>
</tr>
<tr>
<td>MAT1525Y</td>
<td>Inverse Problems of X-Ray and Radar Imaging</td>
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<tr>
<td>MAT1600H</td>
<td>Mathematical Probability I</td>
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<tr>
<td>MAT1601H</td>
<td>Mathematical Probability II</td>
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<td>MAT1639Y</td>
<td>Topics in Fluid Mechanics</td>
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<td>MAT1700H</td>
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<td>MAT1710H</td>
<td>Group Theory and Quantum Mechanics</td>
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<td>MAT1722H</td>
<td>C* Algebras and Quantum Mechanics</td>
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<td>MAT1723H</td>
<td>Foundations of Quantum Mechanics</td>
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<td>MAT1724H</td>
<td>Functional Analysis in Quantum Mechanics</td>
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<td>Scattering Theory</td>
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<td>MAT1739H</td>
<td>Topics in Mathematical Physics</td>
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<td>MAT1750H</td>
<td>Computational Mathematics</td>
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<tr>
<td>MAT1751H</td>
<td>Quantum Computing, Foundations to Frontier</td>
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MAT1760H | Computer Algebra
MAT1761H | Algorithms in Algebraic Geometry
MAT1800H | Methods of Applied Mathematics I
MAT1801H | Methods of Applied Mathematics II
MAT1839H | Integral Equation Methods for the Numerical Solution of PDEs
MAT1840H | Control Theory
MAT1841H | Mathematics of Massive Data Analysis: Fundamentals and Applications
MAT1844H | Nonlinear Dynamical Systems
MAT1845H | Dynamical Systems
MAT1847H | Holomorphic Dynamics
MAT1850H | Linear Algebra and Optimization
MAT1855H | Mathematical Problems in Economics
MAT1856H | Mathematical Finance
MAT1880H | Case Studies in Applied Mathematics

Individual Reading Courses

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<tr>
<td>MAT1900Y</td>
<td>Readings in Pure Mathematics</td>
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<td>MAT1901H</td>
<td>Readings in Pure Mathematics</td>
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<td>MAT1902H</td>
<td>Readings in Pure Mathematics</td>
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<td>MAT1950Y</td>
<td>Readings in Applied Mathematics</td>
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Seminars

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<td>MAT3001H</td>
<td>Seminar in Pure Mathematics (Credit/No Credit)</td>
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<tr>
<td>MAT3002H</td>
<td>Seminar in Applied Mathematics (Credit/No Credit)</td>
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Research Project

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<tbody>
<tr>
<td>MAT4000Y*</td>
<td>Supervised Research Project</td>
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</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Mechanical and Industrial Engineering

MIE: Introduction

Faculty Affiliation
Applied Science and Engineering

Degree Programs

Mechanical and Industrial Engineering

MASc

- Emphases:
  - Robotics (admissions have been administratively suspended);
  - Sustainable Energy

MEng

- Emphases:
  - Advanced Manufacturing;
  - Advanced Soft Materials;
  - Analytics;
  - Biomanufacturing;
  - Engineering and Globalization;
  - Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE);
  - Forensic Engineering;
  - Robotics;
  - Sustainable Energy;
  - Waterpower

- Dual Degree Program (closed as of August 31, 2023):
  - BEng (South China University of Technology) / MEng (University of Toronto)

PhD

- Emphases:
  - Robotics (admissions have been administratively suspended);
  - Sustainable Energy

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Biomedical Engineering
  - Mechanical and Industrial Engineering, MASc, PhD

- Engineering Education
  - Mechanical and Industrial Engineering, MASc, PhD

- Knowledge Media Design
  - Mechanical and Industrial Engineering, MASc, MEng, PhD

- Neuromodulation
  - Mechanical and Industrial Engineering, MASc, PhD

- Psychology, Psychiatry and Engineering
  - Mechanical and Industrial Engineering, MASc, PhD

- Resuscitation Sciences (admissions have been administratively suspended)
  - Mechanical and Industrial Engineering, MASc, MEng, PhD

- Robotics
  - Mechanical and Industrial Engineering, MASc, PhD

Overview

The Department of Mechanical and Industrial Engineering accepts qualified applicants for study in a wide range of topics, spanning the breadth of mechanical and industrial engineering, including advanced manufacturing and materials engineering; applied mechanics and design; biomedical engineering; energy and environmental engineering; robotics, mechatronics and instrumentation; thermal and fluid sciences engineering; human factors/ergonomics; information engineering; and operations research.

Contact and Address

Web: www.mie.utoronto.ca/contact-us/
Email: gradoffice@mie.utoronto.ca
Telephone: (416) 978-2805

Department of Mechanical and Industrial Engineering
University of Toronto
Mechanical Engineering Building
5 King's College Road
Toronto, Ontario M5S 3G8
Canada

MIE: Graduate Faculty

Full Members

Aleman, Dionne - BSc, MSc, PhD
Alfred, Myrtede - PhD
Amon, Cristina - BASc, MSc, ScD
Ashgriz, Nasser - BS, ME, DPhil
Azhari, Fae - BEng, PhD
Bazylak, Aimy - PhD
Beck, Chris - BSc, MSc, PhD
Behdinan, Kamran - BASc, BEng, MASc, MSc, PhD, PhD
Ben Mrad, Ridha - BSc, PhD
Benhabib, Bensiyon - BSc, MSc, PhD
Bilton, Amy Marlou - BASc, MS, PhD
Bussmann, Markus - BASc, MSc, PhD (Chair and Graduate Chair)
Carter, Michael - BM, MMath, PhD
Chan, Timothy - BSc, PhD
Chandra, Sanjeev - PhD
Chignell, Mark - BSc, PhD
Cohen, Eldan - BSc, PhD
Consens, Mariano - BEng, MSc, PhD
Diller, Eric David - BS, MS, PhD
Dolatabadi, Ali - BS, MASc, PhD
Donmez Akyildiz, Birsen - BS, MS, PhD
Duduta, Mihai - PhD
Filleter, Tobin - BE, PhD, PhD (Coordinator of Graduate Studies)
Fox, Mark - BSc, PhD
Golovin, Kevin Bram - PhD
MIE: Mechanical and Industrial Engineering

MASc

Master of Applied Science

Program Description

The MASc degree program provides students with an opportunity to pursue research-intensive advanced studies in a particular field of interest.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mechanical and Industrial Engineering's additional admission requirement stated below.
- Evidence of research ability.

Program Requirements

- At the beginning of each student's program, a professor in the department will be identified as the supervisor who will guide the student in the research program and selection of courses.
- For students with an adequate undergraduate background, the program will normally consist of 2.0 full-course equivalents (FCEs) and a thesis.
- MASc students are required to participate in the non-credit seminar course JDE1000H during their first or second session of registration.
- In Year 1, MASc students are required to attend at least 70% of seminars that are part of the MIE Seminar Series. Students who complete the requirement will receive credit for SRM3333Y MIE Seminar Series for MASc Students.
- Students in the MASc program have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Mechanical and Industrial Engineering MASc, MEng, PhD Emphases section.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

MIE: Mechanical and Industrial Engineering

MEng

Master of Engineering

Program Description
The MEng degree program is designed for students preparing for advanced professional activity; it is not a research-oriented degree. The program may be taken on a full-time, extended full-time, or part-time basis.

**Full-Time Option**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mechanical and Industrial Engineering’s additional admission requirements stated below.
- A mid-B in the final two years of undergraduate study.

**Program Requirements**

- **5.0 full-course equivalents (FCEs) or 3.5 FCEs plus a supervised project.** A majority of the courses must be either offered by the Department of MIE or from a list (found on the department website) of approved courses deemed equivalent to an MIE course.
- Program completion is possible in three sessions (one year).
- Students in the MEng program have the option of completing an emphasis in Advanced Manufacturing; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship; Leadership, Innovation and Technology in Engineering (ELITE); Forensic Engineering; Robotics; or Sustainable Energy as part of their degree program. Please see details in the Mechanical and Industrial Engineering MASc, MEng, PhD Emphases section.

**Program Length**

6 sessions (typical registration sequence: F/W/S/F/W/S)

**Time Limit**

3 years

**Part-Time Option**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mechanical and Industrial Engineering’s additional admission requirement stated below.
- A mid-B in the final two years of undergraduate study.

**Program Requirements**

- **5.0 full-course equivalents (FCEs) or 3.5 FCEs plus a supervised project.** A majority of the courses must be either offered by the Department of MIE or from a list (found on the department website) of approved courses deemed equivalent to an MIE course.
- Students are limited to four half courses per year and two half courses per session. Time to completion will be greater than two years.
- Students in the MEng program have the option of completing an emphasis in Advanced Manufacturing; Analytics; Biomanufacturing; Engineering and Globalization; Entrepreneurship; Leadership, Innovation and Technology in Engineering (ELITE); Forensic Engineering; Robotics; or Sustainable Energy as part of their degree program. Please see details in the Mechanical and Industrial Engineering MASc, MEng, PhD Emphases section.

**Program Length**

9 sessions

**Time Limit**

6 years
MIE: Mechanical and Industrial Engineering
MEng (Dual Degree: BEng South China University of Technology) / MEng

Dual Degree Program: Bachelor of Engineering (South China University of Technology) / Master of Engineering (University of Toronto)

Effective August 31, 2023, this dual degree program has closed.

Program Description

The MEng may also be taken as part of a dual degree involving the Bachelor of Engineering (BEng) program offered by the South China University of Technology's School of Mechanical and Automotive Engineering (SMAE) and the Master of Engineering program offered by the University of Toronto's Mechanical and Industrial Engineering (MIE) department. Dual degree program students complete the fourth year of their BEng as Visiting International Non-degree Students and receive a conditional offer to the MEng program. See the MEng requirements above.

Upon successful completion of the degree requirements of both programs, students receive a Bachelor of Engineering degree and a Master of Engineering degree.

Contact

Bachelor of Engineering Program
School of Mechanical and Automotive Engineering
South China University of Technology
Email: j2jw@scut.edu.cn

Master of Engineering Program
Department of Mechanical and Industrial Engineering
Faculty of Applied Science and Engineering, University of Toronto
Email: meng.admission@mie.utoronto.ca

Application Process

• This dual degree program allows outstanding third-year students at SMAE to apply to complete their fourth year of undergraduate studies enrolled in MIE as Visiting International Non-degree Students. These students receive a conditional offer of admission into the MEng program for their fifth year.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mechanical and Industrial Engineering's additional admission requirements stated on the department's website.

• In Years 2 and 3 of the BEng program, a minimum 80% average (mid-B). In Year 4, students must maintain a minimum mid-B average until conferral of the BEng degree.

MIE: Mechanical and Industrial Engineering
PhD

Doctor of Philosophy

The PhD degree program is for students anticipating a career in which they will be performing or directing research at the most advanced level.

Students may be admitted to the PhD program via one of three routes: 1) following completion of an appropriate master's degree; 2) transfer from the University of Toronto MASc program; or 3) direct entry following completion of a bachelor's degree.

The Department of Mechanical and Industrial Engineering offers both full-time and flexible-time PhD program options. Applicants must declare the option for which they wish to apply; transfers between these programs are not permitted.

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mechanical and Industrial Engineering's additional admission requirements stated below.

• Admission to the PhD program is reserved for those who are able to present evidence of superior academic and research ability. Students may be admitted to the PhD program with an appropriate University of Toronto master's degree or its equivalent from a recognized university with a minimum B+ average.

Program Requirements

• At the beginning of each student's program, a professor in the department will be identified as the supervisor and will guide the student in the research program and selection of courses.

• Minimum departmental standards in coursework: completion of 2.5 full-course equivalents (FCEs) plus a thesis.

• Participation in the non-credit seminar course JDE1000H during the first or second session of registration.

• In Years 1 and 2, students must attend at least 70% of seminars that are part of the MIE Seminar Series. Students who complete this requirement will receive credit for SRD4444Y MIE Seminar Series.

• Students must pass a qualifying examination, annual progress meetings, and the SGS Doctoral Final Oral Examination.

• Students must present a research seminar during the final year of their studies.

• Students must be on campus full-time unless special permission is obtained for off-campus study.

• Students have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Mechanical and Industrial Engineering MASc, MEng, PhD Emphases section.
Program Length
4 years

Time Limit
6 years

PhD Program (Transfer)

Transfer Requirements

- Admission to the PhD program is reserved for those who are able to present evidence of superior academic and research ability. Very strong MASc students may apply to transfer to the PhD program after completing only one year of the MASc program.

Program Requirements

- At the beginning of each student's program, a professor in the department will be identified as the supervisor and will guide the student in the research program and selection of courses.
- Minimum departmental standards in coursework: completion of 3.5 full-course equivalents (FCEs) plus a thesis.
- Participation in the non-credit seminar course JDE1000H during the first or second session of registration.
- In Years 1 and 2, students must attend at least 70% of seminars that are part of the MIE Seminar Series. Students who complete this requirement will receive credit for SRD4444Y MIE Seminar Series.
- Students must pass a qualifying examination, annual progress meetings, and the SGS Doctoral Final Oral Examination.
- Students must present a research seminar during the final year of their studies.
- Students must be on campus full-time unless special permission is obtained for off-campus study.
- Students in the PhD program have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Mechanical and Industrial Engineering MASc, MEng, PhD Emphases section.

Program Length
5 years

Time Limit
7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mechanical and Industrial Engineering’s additional admission requirements stated below.
- Admission to the PhD program is reserved for those who are able to present evidence of superior academic and research ability. Exceptionally strong applicants with a bachelor's degree and an appropriate background may apply directly to the PhD program and may be admitted via direct entry. Applicants are advised to consult with the Graduate Coordinator before applying to ensure that they have the appropriate admission requirements for direct entry.

Program Requirements

- At the beginning of each student's program, a professor in the department will be identified as the supervisor and will guide the student in the research program and selection of courses.
- Minimum departmental standards in coursework: completion of 3.5 full-course equivalents (FCEs) plus a thesis.
- Participation in the non-credit seminar course JDE1000H during the first or second session of registration.
- In Years 1 and 2, students must attend at least 70% of seminars that are part of the MIE Seminar Series. Students who complete this requirement will receive credit for SRD4444Y MIE Seminar Series.
- Students must pass a qualifying examination, annual progress meetings, and the SGS Doctoral Final Oral Examination.
- Students must present a research seminar during the final year of their studies.
- Students must be on campus full-time unless special permission is obtained for off-campus study.
- Students in the PhD program have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Mechanical and Industrial Engineering MASc, MEng, PhD Emphases section.

Program Length
5 years

Time Limit
7 years

PhD Program (Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Mechanical and Industrial Engineering’s additional admission requirements stated below.
- Admission to a PhD program is reserved for those who are able to present evidence of superior academic and research ability. Students may be admitted to the PhD program with an appropriate University of Toronto master's degree or its equivalent from a recognized university with a minimum B+ average.
Applicants to the flexible-time PhD option are accepted under the same admission requirements as applicants to the full-time PhD option. However, in addition, applicants to the flexible-time PhD option must demonstrate that they are actively engaged in professional activities related to their proposed program of study.

Program Requirements

- At the beginning of each student's program, a professor in the department will be identified as the supervisor and will guide the student in the research program and selection of courses.
- Minimum departmental standards in coursework: completion of 2.5 full-course equivalents (FCEs) and a thesis.
- Participation in the non-credit seminar course JDE1000H during their first or second session of registration.
- In Years 1 and 2, students must attend at least 70% of seminars that are part of the MIE Seminar Series. Students who complete this requirement will receive credit for SRD4444Y MIE Seminar Series. Students whose professional background is such that they would be deemed to have fulfilled this breadth requirement may be exempted upon consultation with the admissions committee.
- Students must pass a qualifying examination, annual progress meetings, and the SGS Doctoral Final Oral Examination.
- Students must present a research seminar during the final year of their studies.
- Students in the PhD program have the option of completing an emphasis in Sustainable Energy as part of their degree program. Please see details in the Mechanical and Industrial Engineering MASc, MEng, PhD Emphases section.

Program Length

6 years

Time Limit

8 years

MIE: Mechanical and Industrial Engineering

MASc, MEng, PhD Emphases

Emphasis: Advanced Manufacturing (MEng only)

MEng students must successfully complete:

- Four half courses (2.0 full-course equivalents [FCEs]), including at least one core course.
- Elective courses may include other core courses, and courses from either of two streams: Manufacturing Engineering and Manufacturing Management.

Core Courses

AER501H1 Computational Structural Mechanics and Design Optimization
AER1403H Advanced Aerospace Structures

APS1028H Operations and Production Management for Manufacturing and Services
CHE1123H Liquid Biofuels
MIE519H1 Advanced Manufacturing Technologies
MIE1740H Smart Materials and Structures.

Elective Courses — Manufacturing Engineering


Elective Courses — Manufacturing Management


Emphasis: Advanced Soft Materials (MEng only)

MEng students must successfully complete any four half courses (2.0 full-course equivalents [FCEs]) from the following list:


Students may double-count one course at most towards any MIE emphasis, or towards any other emphasis in the Faculty.

Emphasis: Analytics (MEng only)

To be admitted to the emphasis in Analytics, MEng students must first successfully complete a prerequisite course APS1070H (0.5 full-course equivalent [FCE]).

Subsequently, to earn the emphasis, students must successfully complete four additional half courses (2.0 FCEs) from the list of core courses or elective courses. These must include at least one core course; the remaining courses must be selected from the list of elective courses.

Students must have completed the prerequisite course APS1070H before taking any of the core courses.

Prerequisite Course

APS1070H Foundations of Data Analytics and Machine Learning.

Core Courses

CHE1147H Data Mining in Engineering
ECE1513H Introduction to Machine Learning (exclusions: CSC411H1, CSC2515H, ECE421H1, ECE1504H)
MIE1624H Introduction to Data Science and Analytics (exclusion: MIE1626H)
MIE1626H Data Science Methods and Statistical Learning (exclusion: MIE1624H)
MSE1065H Application of Artificial Intelligence in Materials Design (exclusion: MSE1063H).

Elective Courses

Emphasis: Biomanufacturing (MEng only)
MEng students must successfully complete any four half courses (2.0 full-course equivalents [FCEs]) from the following list:

Students may double-count one course at most towards any MIE emphasis, or towards any other emphasis in the Faculty.

Emphasis: Engineering and Globalization (MEng only)
MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]) from the following lists, with at least two half courses (or one full course) taken from Group A.

Group A
APS510H1, APS530H1, APS1420H, JCR1000Y (full-year course).

Group B
APS1015H, APS1020H, APS1024H, CHL5700H, CIV1399H.

Note: Students who choose to pursue an MEng project in their home department that aligns with the Centre for Global Engineering (CGEN)'s disciplinary focus, as deemed by the CGEN Director, may count the project as one required Group B course.

Students who complete the requirements of the emphasis in Engineering and Globalization and wish to obtain a notation on their transcript should contact the Faculty Graduate Studies office.

Emphasis: Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) (MEng only)
MEng students must successfully complete any four of the following courses (2.0 full-course equivalents [FCEs]):
Leadership
Entrepreneurship and Innovation
APS111H1, APS1012H, APS1013H, APS1015H, APS1023H, APS1033H, APS1035H, APS1036H, APS1041H, APS1061H, APS1088H.
Finance and Management
Engineering and Society
APS510H1, APS1018H, APS1024H, APS1025H, APS1031H, APS1034H, APS1101H, APS1420H.

Emphasis: Forensic Engineering (MEng only)
MEng students must successfully complete four courses (one core course and three elective courses; 2.0 full-course equivalents [FCEs]).
Core Course
MSE1031H Forensic Engineering.
Elective Courses
Emphasis: Robotics (MEng only)

Students must successfully complete four courses (2.0 full-course equivalents [FCEs]) chosen from at least two of the following groups, and no more than two in any given group:

**Group 1: Planning and Control**

AER1516H, AER1517H, ECE557H (exclusion: ECE410H1), ECE1635H, ECE1636H, ECE1647H, ECE1653H, ECE1657H, MIE1064H.

**Group 2: Perception and Learning**


**Group 3: Modelling and Dynamics**

AER506H1, AER1503H, AER1512H, JEB1444H, MIE1001H.

**Group 4: Systems Design and Integration**

AER525H1 (exclusion: ECE470H1), AER1216H, AER1217H, CSC2621H, ECE470H1 (exclusion: AER525H1), MIE505H1, MIE506H1, MIE1070H, MIE1075H, MIE1076H, MIE1080H, MIE1809H, ROB521H1, ROB1514H.

Emphasis: Sustainable Energy (MASc, MEng, PhD)

MASc and PhD students must successfully complete:

- At least three half courses (1.5 full-course equivalents [FCEs]) from either of the following lists below.
- A thesis towards their degree on a topic related to sustainable energy. Topics must be approved by the steering committee of the Institute of Sustainable Energy. Contact: emphasis@cpe.utoronto.ca.

MEng students must successfully complete:

- Four half courses (2.0 FCEs) from either of the following lists below, including at least one core course (0.5 FCE).

Contact

All students are asked to register with Climate Positive Energy (CPE) at emphasis@cpe.utoronto.ca, at the beginning of their studies, to receive information about energy-related activities and opportunities on campus. CPE also administers a number of awards and scholarships for which students may be eligible.

Emphasis: Waterpower (MEng only)

MEng students must successfully complete four half courses (2.0 full-course equivalents [FCEs]), including one core course. The remaining coursework may be taken from the following lists.

**Core Course**

APSI410H Waterpower Essentials.

**Group A (complete at least one)**

APSI411H (prerequisite: APS1410H), CIV550H1.

**Group B (complete at least one)**


MIE: Mechanical and Industrial Engineering

**MASc, MEng, PhD Courses**

See the departmental website for a schedule of available courses.
### Fluid Mechanics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MIE520H1</td>
<td>Biotransport Phenomena</td>
</tr>
<tr>
<td>MIE1201H</td>
<td>Advanced Fluid Mechanics I</td>
</tr>
<tr>
<td>MIE1206H</td>
<td>Non Newtonian Fluid Mechanics</td>
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<tr>
<td>MIE1207H</td>
<td>Structure of Turbulent Flows</td>
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<tr>
<td>MIE1208H</td>
<td>Microfluidic Biosensors (prerequisite: undergraduate-level fluidic mechanics)</td>
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<tr>
<td>MIE1210H</td>
<td>Computational Fluid Mechanics and Heat Transfer</td>
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<tr>
<td>MIE1212H</td>
<td>Convective Heat Transfer</td>
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<tr>
<td>MIE1214H</td>
<td>Applied Computational Fluid Dynamics (CFD)</td>
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<tr>
<td>MIE1222H</td>
<td>Multiphase Flows</td>
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<tr>
<td>MIE1232H</td>
<td>Microfluidics and Laboratory-on-a-Chip Systems</td>
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<tr>
<td>MIE1240H</td>
<td>Wind Power</td>
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<tr>
<td>MIE1241H</td>
<td>Energy Management</td>
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<tr>
<td>MIE1242H</td>
<td>Applied Thermal Management: Applications in Electric Vehicles, Electronic Systems, and Datacenters (prerequisites: MIE210H1, MIE312H1, MIE313H1, or equivalent)</td>
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<tr>
<td>MIE1299H</td>
<td>Special Topics in Fluid Mechanics</td>
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### Information Engineering

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MIE5501H</td>
<td>Knowledge Modelling and Management</td>
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<tr>
<td>MIE5505H</td>
<td>Enterprise Modelling</td>
</tr>
<tr>
<td>MIE5510H</td>
<td>Formal Techniques in Ontology Engineering</td>
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<td>MIE5512H</td>
<td>Data Analytics</td>
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<td>MIE5513H</td>
<td>Decision Support Systems</td>
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<td>MIE5514H</td>
<td>Systems Design and Engineering: A Product Perspective</td>
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<tr>
<td>MIE5516H</td>
<td>Structured Learning and Inference</td>
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<tr>
<td>MIE5517H</td>
<td>Introduction to Deep Learning (prerequisite: APS1070H or equivalent)</td>
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### Mechanics and Materials

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MIE5517H1</td>
<td>Fuel Cell Systems</td>
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<tr>
<td>MIE5540H1</td>
<td>Product Design</td>
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<tr>
<td>MIE55128H</td>
<td>Materials for Clean Energy Technologies</td>
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<tr>
<td>MIE55301H</td>
<td>Solid Mechanics</td>
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<tr>
<td>MIE55303H</td>
<td>Fracture Mechanics</td>
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<tr>
<td>MIE55359H</td>
<td>Engineering Cell Biology and Micro-Nanoengineered Platforms</td>
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<td>MIE55705H</td>
<td>Thermoplastics Polymer Processing</td>
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<tr>
<td>MIE55706H</td>
<td>Manufacturing of Cellular and Microcellular Polymers</td>
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<tr>
<td>MIE55707H</td>
<td>Structure-Property Relationships of Thermoplastic and Composite Foams</td>
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<td>MIE55708H</td>
<td>Collision Reconstruction</td>
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<tr>
<td>MIE55709H</td>
<td>Continuum Mechanics</td>
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<tr>
<td>MIE55715H</td>
<td>Life Cycle Engineering</td>
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<tr>
<td>MIE55720H</td>
<td>Creativity in Conceptual Design</td>
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<tr>
<td>MIE55724H</td>
<td>Additive Manufacturing in Engineering Applications</td>
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<tr>
<td>MIE55725H</td>
<td>Soft Robotics</td>
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<tr>
<td>MIE55740H</td>
<td>Smart Materials and Structures</td>
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<tr>
<td>MIE55744H</td>
<td>Nanomechanics of Materials</td>
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<tr>
<td>MIE55745H</td>
<td>Surface Engineering</td>
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<tr>
<td>MIE55804H</td>
<td>The Finite Element Method in Mechanical Engineering</td>
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<tr>
<td>MIE55807H</td>
<td>Principles of Measurements</td>
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### Human Factors and Ergonomics

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<tr>
<td>MIE5542H1</td>
<td>Human Factors Integration</td>
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<tr>
<td>MIE55401H</td>
<td>Human Factors Engineering</td>
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<tr>
<td>MIE55402H</td>
<td>Experimental Methods in Human Factors Research</td>
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<tr>
<td>MIE55403H</td>
<td>Analytical Methods in Human Factors Research</td>
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<tr>
<td>MIE55411H</td>
<td>Design of Work Places</td>
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<tr>
<td>MIE55412H</td>
<td>Human-Automation Interaction</td>
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<tr>
<td>MIE55413H</td>
<td>Statistical Models in Empirical Research</td>
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<tr>
<td>MIE55414H</td>
<td>Human Factors in Transportation</td>
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<tr>
<td>MIE55415H</td>
<td>Analysis and Design of Cognitive Work</td>
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<tr>
<td>MIE55416H</td>
<td>Human Factors in Healthcare</td>
</tr>
<tr>
<td>MIE55444H</td>
<td>Engineering for Psychologists and Psychiatrists</td>
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### Information Engineering
# Mechatronics and Dynamics

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<tbody>
<tr>
<td>MIE506H1</td>
<td>MEMS Design and Microfabrication</td>
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<tr>
<td>MIE1001H</td>
<td>Advanced Dynamics</td>
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<tr>
<td>MIE1005H</td>
<td>Theory of Vibrations</td>
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<tr>
<td>MIE1010H</td>
<td>Acoustics and Noise Control</td>
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<tr>
<td>MIE1050H</td>
<td>Design of Intelligent Sensor Networks</td>
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<tr>
<td>MIE1052H</td>
<td>Signal Processing for Bioengineering</td>
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<tr>
<td>MIE1064H</td>
<td>Control Analysis Methods with Applications to Robotics</td>
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<tr>
<td>MIE1070H</td>
<td>Intelligent Robots for Society</td>
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<tr>
<td>MIE1075H</td>
<td>AI Applications in Robotics (prerequisites: control systems, robotics, AI fundamentals)</td>
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<tr>
<td>MIE1076H</td>
<td>AI Applications in Robotics II (prerequisites: MIE1075H, control systems, robotics, AI fundamentals)</td>
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<tr>
<td>MIE1077H</td>
<td>AI Applications in Robotics III (prerequisite: robotics, MIE1075H, MIE1076H, or equivalent)</td>
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<tr>
<td>MIE1080H</td>
<td>Introduction to Healthcare Robotics</td>
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<tr>
<td>MIE1718H</td>
<td>Computer Integrated Manufacturing</td>
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<td>MIE1809H</td>
<td>Advanced Mechatronics</td>
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<tr>
<td>MIE1621H</td>
<td>Non-Linear Optimization</td>
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<tr>
<td>MIE1622H</td>
<td>Computational Finance and Risk Management</td>
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<tr>
<td>MIE1623H</td>
<td>Introduction to Healthcare Engineering</td>
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<tr>
<td>MIE1624H</td>
<td>Introduction to Data Science and Analytics</td>
</tr>
<tr>
<td>MIE1625H</td>
<td>Machine Learning for Medical Image Analysis (prerequisite: APS1070H or equivalent)</td>
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<tr>
<td>MIE1626H</td>
<td>Data Science Methods and Statistical Learning</td>
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<tr>
<td>MIE1628H</td>
<td>Big Data Science</td>
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<tr>
<td>MIE1653H</td>
<td>Integer Programming Applications</td>
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<tr>
<td>MIE1666H</td>
<td>Machine Learning for Mathematical Optimization (prerequisite: CSC311H1, MIE1516H, MIE1603H, MIE1619H, or equivalent)</td>
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<tr>
<td>MIE1699H</td>
<td>Special Topics in Operations Research</td>
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<tr>
<td>MIE1714H</td>
<td>Failure Analysis</td>
</tr>
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<td>MIE1721H</td>
<td>Reliability</td>
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<td>MIE1723H</td>
<td>Engineering Asset Management</td>
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<tr>
<td>MIE1727H</td>
<td>Quality Assurance I</td>
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# Thermal Sciences

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<tr>
<td>MIE515H1</td>
<td>Alternative Energy Systems</td>
</tr>
<tr>
<td>MIE516H1</td>
<td>Combustion and Fuels</td>
</tr>
<tr>
<td>MIE1101H</td>
<td>Advanced Classical Thermodynamics</td>
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<tr>
<td>MIE1107H</td>
<td>Statistical Thermodynamics</td>
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<tr>
<td>MIE1115H</td>
<td>Heat Transfer with Phase Change</td>
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<tr>
<td>MIE1120H</td>
<td>Current Energy Infrastructure and Resources</td>
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<tr>
<td>MIE1122H</td>
<td>Combustion Engine Processes</td>
</tr>
<tr>
<td>MIE1123H</td>
<td>Fundamentals of Combustion</td>
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<tr>
<td>MIE1129H</td>
<td>Nuclear Engineering I: Reactor Physics and the Nuclear Fuel Cycle</td>
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<tr>
<td>MIE1130H</td>
<td>Nuclear Engineering II: Thermal and Mechanical Design of Nuclear Power Reactors</td>
</tr>
<tr>
<td>MIE1132H</td>
<td>Heat Exchanger Design</td>
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<tr>
<td>MIE1133H</td>
<td>Laser Applications in Engineering</td>
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<tr>
<td>MIE1199H</td>
<td>Special Topics in Thermal Sciences</td>
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<tr>
<td>MIE1801H</td>
<td>Advanced Engineering Analysis</td>
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# Operations Research

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<tr>
<td>MIE561H1</td>
<td>Healthcare Systems</td>
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<tr>
<td>MIE562H1</td>
<td>Scheduling</td>
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<tr>
<td>MIE566H1</td>
<td>Decision Making Under Uncertainty</td>
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<tr>
<td>MIE1603H</td>
<td>Integer Programming</td>
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<tr>
<td>MIE1605H</td>
<td>Stochastic Processes</td>
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<tr>
<td>MIE1607H</td>
<td>Stochastic Modelling and Optimization</td>
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<tr>
<td>MIE1612H</td>
<td>Stochastic Programming and Robust Optimization (prerequisites: MIE262H1, APS1005H, or equivalent; and MIE231H1, APS106H1, or equivalent)</td>
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<tr>
<td>MIE1613H</td>
<td>Stochastic Simulation</td>
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<tr>
<td>MIE1615H</td>
<td>Markov Decision Processes</td>
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<tr>
<td>MIE1616H</td>
<td>Research Topics in Healthcare Engineering</td>
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<tr>
<td>MIE1619H</td>
<td>Constraint Programming and Hybrid Algorithms</td>
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<tr>
<td>MIE1620H</td>
<td>Linear Programming and Network Flows</td>
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# APS Engineering Courses

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<tbody>
<tr>
<td>APS1005H</td>
<td>Operations Research for Engineering Management</td>
</tr>
<tr>
<td>APS1012H</td>
<td>Managing Business Innovation and Transformational Change</td>
</tr>
<tr>
<td>APS1013H</td>
<td>Applying Innovation in Engineering and Business Operations</td>
</tr>
<tr>
<td>APS1015H</td>
<td>Social Entrepreneurship</td>
</tr>
<tr>
<td>APS1016H</td>
<td>Financial Management for Engineers</td>
</tr>
<tr>
<td>APS1017H</td>
<td>Supply Chain Management and Logistics</td>
</tr>
<tr>
<td>APS1022H</td>
<td>Financial Engineering 2</td>
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<tr>
<td>APS1023H</td>
<td>New Product Innovation</td>
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<td>APS1028H</td>
<td>Operations and Production Management for Manufacturing and Services</td>
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<td>APS1032H</td>
<td>Introduction to Energy Project Management</td>
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<tr>
<td>APS1034H</td>
<td>Making Sense of Accidents</td>
</tr>
<tr>
<td>APS1043H</td>
<td>Writing Your Own Patent Application</td>
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<td>APS1049H</td>
<td>Management Consulting for Engineers</td>
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<tr>
<td>APS1050H</td>
<td>Blockchain Technologies and Cryptocurrencies</td>
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<tr>
<td>APS1051H</td>
<td>Portfolio Management Praxis Under Real Market Constraint</td>
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<tr>
<td>APS1052H</td>
<td>Artificial Intelligence in Finance: From Neural Networks to Deep Learning</td>
</tr>
<tr>
<td>APS1053H</td>
<td>Case Studies in AI in Finance (prerequisite: APS1051H and/or APS1052H)</td>
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<tr>
<td>APS1061H</td>
<td>Business Strategy and Intrapreneurship</td>
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<tr>
<td>APS1070H</td>
<td>Foundations of Data Analytics and Machine Learning</td>
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<tr>
<td>APS1101H</td>
<td>System Dynamic Risk Assessment (recommended prerequisite: APS1034H)</td>
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<td>APS1803Y</td>
<td>Multidisciplinary MEng Project</td>
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<tr>
<td>APS2000Y</td>
<td>Engineering Practicum (Credit/No Credit)</td>
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<td>TEP1203H</td>
<td>Teaching Engineering in Higher Education</td>
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<td>TEP1204H</td>
<td>Instructional Design in Engineering Education</td>
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<td>MIE1753H</td>
<td>Legal Framework for Innovation</td>
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<td>Laser Applications in Manufacturing</td>
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<td>MIE1755H</td>
<td>CAE Technologies in Automotive Engineering</td>
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<td>MIE1757H</td>
<td>Electric Motor Technologies in Automotive Engineering</td>
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<tr>
<td>MIE1758H</td>
<td>Polymers and Composites in Automotive Design and Manufacturing</td>
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<td>Polymers and Composites Processing in Automotive</td>
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<td>MIE1760H</td>
<td>Metals in Automotive Design and Manufacturing</td>
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<td>MIE1761H</td>
<td>Metal Forming Simulation</td>
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<td>MIE1763H</td>
<td>Hot Stamping 1. — Metallurgy, Materials, Thermomechanical Treatment, and Welding</td>
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<td>Hot Stamping 2. — Process and Product Performance Simulation and Optimization</td>
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<td>MIE1765H</td>
<td>Aluminum Die Casting 1. — Metallurgy, Process Design, and Optimization</td>
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<td>MIE1766H</td>
<td>Aluminum Die Casting 2. — Product Design and Optimization</td>
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<td>MIE1767H</td>
<td>Mechatronics in Automotive Applications</td>
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<tr>
<td>MIE1768H</td>
<td>Mechatronics in Automotive Applications 2 (prerequisite: MIE1767H)</td>
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<tr>
<td>MIE1769H</td>
<td>Artificial Intelligence in Automotive and Manufacturing Applications</td>
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<tr>
<td>MIE1770H</td>
<td>Artificial Intelligence in Automotive and Manufacturing Applications 2 (prerequisite: MIE1769H or equivalent)</td>
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<tr>
<td>MIE1771H</td>
<td>Additive Manufacturing in Automotive and High-Volume Applications</td>
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# SCFI MEng Courses

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<td>Innovation Management I</td>
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<td>Innovation Management II</td>
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<td>MIE1752H</td>
<td>Innovation Finance and Economics</td>
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<td>MIE1753H</td>
<td>Legal Framework for Innovation</td>
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<td>MIE1754H</td>
<td>Laser Applications in Manufacturing</td>
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<td>MIE1755H</td>
<td>CAE Technologies in Automotive</td>
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<td>MIE1757H</td>
<td>Electric Motor Technologies in</td>
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<td>Polymers and Composites in</td>
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<td>Metals in Automotive Design and</td>
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<td>Metal Forming Simulation</td>
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<td>MIE1764H</td>
<td>Hot Stamping 2. — Process and Product Performance Simulation</td>
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<td>Aluminum Die Casting 2. — Product Design and Optimization</td>
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<td>Mechatronics in Automotive Applications 2 (prerequisite: MIE1767H)</td>
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<td>Artificial Intelligence in Automotive and Manufacturing Applications</td>
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<tr>
<td>MIE1770H</td>
<td>Artificial Intelligence in Automotive and Manufacturing Applications 2 (prerequisite: MIE1769H or equivalent)</td>
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<tr>
<td>MIE1771H</td>
<td>Additive Manufacturing in Automotive and High-Volume Applications</td>
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# Reading Courses

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MIE2002H</td>
<td>Readings in Industrial Engineering I (Credit/No Credit)</td>
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<tr>
<td>MIE2003H</td>
<td>Readings in Industrial Engineering II (Credit/No Credit)</td>
</tr>
<tr>
<td>MIE2004H</td>
<td>Readings in Mechanical Engineering I (Credit/No Credit)</td>
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<tr>
<td>MIE2005H</td>
<td>Readings in Mechanical Engineering II (Credit/No Credit)</td>
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# Seminar Courses

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SRM3333Y</td>
<td>MIE Seminar Series for MASc Students</td>
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</table>
SRD4444Y  MIE Seminar Series for PhD Students

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<th>Course Code</th>
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<tr>
<td>MIE8888Y</td>
<td>MEng Research Project</td>
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Medical Biophysics

Medical Biophysics: Introduction

Faculty Affiliation

Medicine

Degree Programs

Medical Biophysics

MSc and PhD

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Biomedical Engineering
  - Medical Biophysics, MSc, PhD
- Cardiovascular Sciences
  - Medical Biophysics, MSc, PhD
- Genome Biology and Bioinformatics
  - Medical Biophysics, PhD
- Neuroscience
  - Medical Biophysics, MSc, PhD

Overview

The Department of Medical Biophysics is an interdisciplinary graduate department dedicated to fundamental and translational research in biomedicine, with a particular focus on cancer. Research is carried out in the extensive facilities provided in the Princess Margaret Cancer Centre, Sunnybrook Research Institute, and the Hospital for Sick Kids Research Institute, as well as at other hospital locations.

The department accepts students in the biological and life sciences as well as in physics, engineering, and the mathematical sciences. It offers opportunities for research addressing fundamental problems in medical science: projects which cut across the conventional boundaries of biology, physics, engineering, chemistry, and medicine are encouraged. The department focuses on basic and applied research related to cancer, but also addresses neuroscience and cardiovascular medicine. Medical Biophysics research themes include biomedical imaging, cancer diagnosis and therapy, cancer mechanisms and models, cardiovascular sciences, data science and computational biology, image-guided therapy and device development, neuroscience, stem cells and regenerative medicine, and structural biology. For detailed information, please visit the departmental website.

Contact and Address

Web: medbio.utoronto.ca
Email: medbio.info@utoronto.ca
Telephone: (416) 634-8751 or (416) 634-8755

Department of Medical Biophysics
MaRS Centre, Princess Margaret Cancer Research Tower
101 College Street, Suite 15-701
Toronto, Ontario M5G 1L7
Canada

Medical Biophysics: Graduate Faculty

Full Members

Ailles, Laurie - PhD (Chair and Graduate Chair)
Akens, Margarete - DVM, PhD
Andrews, David - PhD
Arrowsmith, Cheryl - BSc, PhD
Attisano, Liliana - BSc, PhD
Bjerknes, Matthew - BSc, MSc, PhD
Bratman, Scott - MD, PhD
Burns, Peter - BSc, PhD
Chan, Steven - MD, PhD
Chen, Jean - PhD
Chiiew, Mark - PhD
Cunningham, Charles - BSc, MSc, PhD (Uptown Vice-Chair)
Czarnota, Gregory - MD, PhD
DaCosta, Ralph - PhD
Danska, Jayne - AB, PhD
De Carvalho, Daniel - PhD
Demore, Christine - PhD
Diamandis, Phedias - BS, MD, PhD
Edwards, Aled - BSc, PhD
Filimus, Jorge - MSc, PhD
Foster, Stuart - BSc, MSc, PhD
Fraser, Paul - BSc, MSc, PhD
Gallie, Brenda - MD
Gariepy, Jean - BSc, PhD
Goertz, David - MSc, PhD
Goubran, Maged - PhD
Graham, Simon - BSc, PhD
Haibe-Kains, Benjamin - PhD
Hakem, Razq - PhD
Harding, Shane - PhD
He, Housheng - PhD
Hoffman, Michael - PhD
Hope, Kristin - PhD
Huang, Annie - MD
Hynynen, Kullervo - BSc, MS, PhD
Ikura, Mitsuhiko - BSc, PhD
Irwin, Meredith - MD
Iscove, Norman - MD, PhD
Jaffray, David - BSc, PhD
Jones, Courtney - PhD
Jurisica, Igor - PhD, CRC
Keller, Gordon - BSc, PhD
Kerbel, Robert - BSc, PhD
Khokha, Rama - BSc, MSc, PhD
Kislinger, Thomas - PhD
Lau, Angus - PhD
Leong, Hon - MSc, PhD
Lilge, Lothar - DipPhy, PhD (Downtown Graduate Coordinator)
Lin, Fa-Hsuan - PhD
Liu, Fei-Fei - MD
Liu, Geoffrey - BSc, MSc, MD
Liu, Stanley - MD, PhD
Lok, Benjamin - BSc, MD
Lupien, Mathieu - PhD
Macgowan, Christopher - BSc, MSc, PhD
MacIntosh, Bradley - PhD
Mak, Tak - BSc, MSc, PhD
Malkin, David - MD (Associate Chair)
Marsden, Philip - MD
Martel, Anne - BSc, PhD
Mazhab-Jafari, Mohammad - MSc, PhD
Mclglade-Dolson, Jane - BSc, PhD
Mclntosh, Chris - PhD
Moody, Alan - BA, MA, MBBS
Near, Jamie - BSE, PhD
Nieman, Brian - PhD
Notta, Faiyaz - MS, PhD
O'Brien, Catherine - BSc, MSc, DrMed, PhD
O'Reilly, Meaghan - MS, PhD
Paige, Christopher - BSc, PhD
Penn, Linda - BSc, PhD
Prive, Gil - BSc, PhD
Pugh, Trevor - PhD
Ramaswamy, Vijay - MD
Raught, Brian - BS, MS, PhD
Reedijk, Michael - BSc, MD, MSc, PhD
Rink, Alexandra - BSc, PhD
Ross, Bernhard - DipIng, PhD
Ross, Benhard - DipIng, PhD
Rottapel, Robert - BA, MD
Santer, Giles - PhD
Schimmer, Aaron - MD, PhD
Seuntjens, Jan - PhD
Sled, John - BASc, MEng, PhD (Downtown Vice-Chair)
Spaner, David - PhD
Stambolic, Vuk - BSc, MSc, PhD
Stanisz, Greg - PhD (Uptown Graduate Coordinator)
Stefanovic, Bojana - BASc, PhD
Strother, Stephen - BSc, MS, PhD
Tabori, Uri - MBBS
Taylor, Michael - BSc, DrMed, PhD
Tiedemann, Rodger - MBCHB, PhD
Tikhonova, Anastasia - PhD
Trudel, Suzanne - MSc, MD
Tsao, Ming-Sound - BSc, MD
Vitkin, Alex - BASc, MA, PhD
Wang, Bo - BS, MS, PhD
Weersink, Robert - BSc, PhD
Wilson, Brian - BSc, PhD
Wong, Chong Shun - MD
Woodgett, James - BSc, PhD
Wouters, Bradly - MSc, PhD
Wright, Graham - BSc, MSc, PhD
Yaffe, Martin - BSc, MSc, PhD
Zackenas Haus, Eldad - PhD
Zarinne-Afsar, Arash - BSc, PhD
Zheng, Gang - MSc, PhD

Members Emeriti
Boyd, Norman - MD
Chakrabarty, Avijit - BSc, MSc, PhD
Hedley, David - MD
Henkelman, Mark - BSc, MSc, PhD
Julius, Michael - BSc, PhD
Minden, Mark - MD, PhD
Ottensmeyer, Peter - BASc, MA, PhD
Pai, Emil - PhD
Plewes, Donald - BSc, MSc, PhD
Rauth, A Michael - BSc, PhD
Tannock, Ian - MD, PhD

Medical Biophysics: Medical Biophysics
MSc

Master of Science

Program Description

The objective of the MSc program is for students to acquire written and oral scholarly research skills in Medical Biophysics. Students carry out a research project (which is usually laboratory-based), prepare a research thesis, take graduate-level courses, and attend and participate in research seminars. Students select from a flexible, modular curriculum and participate in department-wide Medical Biophysics Graduate Student Seminars which develop skills in cross-disciplinary communication.

All MSc students carry out a thesis project in a laboratory that they select by means of a rotations program on entry to the department. Through this project they acquire knowledge in the design of experiments and in the interpretation and critical analysis of research findings. Students submit a thesis that reports critically on their research and pass an oral examination. They are guided by a supervisory committee through which they have access to the wide range of expertise in our faculty.

Students participate in student symposium, invited lecture series, and research seminars throughout their program. They are encouraged to reclassify (transfer) into the PhD program through an examination during Year 2, taken about 20 months after entry.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Medical Biophysics' additional admission requirements stated below.
- Applicants from diverse academic backgrounds are encouraged to apply.

Program Requirements

- **Coursework.** Students must complete a total of 2.5 full-course equivalents (FCEs) as follows:
  - MBP1015Y0 *Biophysics Seminar* (1.0 FCE). Note that students must attend this continuous course until their degree program is completed.
  - MBP1200H *Scientific Exposition and Ethics* (0.25 FCE).
  - MBP1201H *Biostatistics* (0.25 FCE).
  - One of the following two options:
• a biology-stream module (0.25 FCE) or
• a graduate course (0.25 FCE) chosen in consultation with the department that provides a foundation in biology.
  o The balance of 0.75 FCE is chosen from any of the other course modules; or (with departmental approval) graduate courses in another department.
  o Modules are taken within courses. See the course list below.
• Successful completion of an oral examination of the student's research thesis.

Program Length
6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit
3 years full-time

Medical Biophysics: Medical Biophysics PhD

Doctor of Philosophy

Program Description

The objective of the PhD program is to prepare students for a career in biomedical research. It is designed to provide both a broad knowledge of biomedical science and advanced training in basic research at a subspecialty level. Thesis work may address fundamental and/or translational problems in the biology, diagnosis, and therapy of cancer, as well as areas of neuroscience and cardiovascular medicine. By the end of the program, graduates will have acquired the ability to conduct independent theoretical and/or experimental research which makes an original contribution to the field, prepare publications, and give public presentations of their work at national and international venues.

These objectives are met through a combination of coursework, teaching, and research seminars, mentored laboratory research, and preparation of manuscripts for publication. Graduates may attain professorial positions in academic research and teaching institutions, hospital laboratories, and in the medical device, pharmaceutical, and biomedical science and information industries, including startup companies which they have founded.

Applicants may enter the PhD program via one of three routes: 1) following completion of an MSc degree into the four-year full-time program; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion of a BSc degree.

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Medical Biophysics' additional admission requirements stated below.
• Applicants may be admitted following completion of an MSc degree program in biological, physical, chemical, or medical sciences from a recognized Canadian university or equivalent.
• Admission to the PhD program is highly selective and attainment of minimum admission requirements does not guarantee acceptance.

Program Requirements

• All students, regardless of entry option, complete the same program requirements.
• Considering the broad range of topics available for thesis research and the different backgrounds of students admitted, each student, in consultation with their supervisor, will plan a program of study that provides the appropriate background for the area of investigation.
• All PhD students will participate in MBP1015Y0 Biophysics Seminar regardless of whether or not they have previously received credit for it.
• Students who transfer/reclassify into the doctoral program will receive credit for all courses taken during their MSc program in Medical Biophysics.
• Except by special arrangement, students are required to attend the research institute or campus laboratory and participate full-time until all program requirements are completed.
• Coursework. Students must complete a total of 3.5 full-course equivalents (FCEs) as follows:
  o MBP1015Y0 Biophysics Seminar (1.0 FCE). Note that this is a continuous course which students must attend until their degree is completed.
  o MBP1200H Scientific Exposition and Ethics (0.25 FCE).
  o MBP1201H Biostatistics (0.25 FCE).
  o One of the following two options:
    ▪ a biology-stream module (0.25 FCE) or
    ▪ a graduate course (0.25 FCE) chosen in consultation with the department that provides a foundation in biology.
  o The balance of 1.75 FCE is chosen from any of the other course modules; or (with departmental approval) graduate courses in another department.
• Students must complete all required coursework by the end of Year 3 in order to achieve candidacy. Upon achieving candidacy, completion is noted on the student's transcript.
• Students must take a PhD Qualifying Examination in Year 2.
• Successful completion of a Doctoral Final Oral Examination of the student's research thesis.

Program Length
4 years full-time

Time Limit
6 years full-time

0 Course that may continue over a program. The course is graded when completed.
PhD Program (Transfer)

Transfer Requirements

- Applicants may be accepted into the PhD program via transfer from the University of Toronto Medical Biophysics MSc program with an A– average and by successfully defending a research proposal during a reclassification oral examination within 20 months in the program.

Program Requirements

- All PhD students will participate in MBP1015Y0 Biophysics Seminar regardless of whether or not they have previously received credit for it.
- Students who transfer/reclassify into the doctoral program will receive credit for all courses taken during their MSc program in Medical Biophysics. See the course requirements above for the PhD program. Students must have an A– average in these courses.
- Students will defend a research thesis at the Doctoral Final Oral Examination conducted by Medical Biophysics and the School of Graduate Studies.
- Except by special arrangement, students must attend the research institute or campus laboratory and participate full-time until all program requirements are completed.

Coursework. Students must complete a total of 3.5 full-course equivalents (FCEs) as follows:

- MBP1015Y0 Biophysics Seminar (1.0 FCE). Note that this is a continuous course which students must attend until their degree is completed.
- MBP1200H Scientific Exposition and Ethics (0.25 FCE).
- MBP1201H Biostatistics (0.25 FCE).
- One of the following two options:
  - a biology-stream module (0.25 FCE) or
  - a graduate course (0.25 FCE) chosen in consultation with the department that provides a foundation in biology.
- The balance of 1.75 FCE is chosen from any of the other course modules; or (with departmental approval) graduate courses in another department.
- Students must complete all required coursework by the end of Year 4 in order to achieve candidacy. Upon achieving candidacy, completion is noted on the student's transcript.
- Successful completion of a Doctoral Final Oral Examination of the student's research thesis.

Program Length

5 years

Time Limit

7 years

0 Course that may continue over a program. The course is graded when completed.

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Medical Biophysics' additional admission requirements stated below.
- Outstanding students may be admitted directly to the PhD program following completion of a BSc degree with an A– average in biological, physical, chemical, or medical sciences from a recognized Canadian university or equivalent.
- Applicants holding bachelor's degrees from non-Canadian universities must provide Graduate Record Examination scores (General and Subject) with their application.
- Admission to the PhD program is highly selective and attainment of minimum admission requirements does not guarantee acceptance.

Program Requirements

- Students must successfully defend a research proposal during a qualifying oral examination within 18 months of entry into the program.
- Students will defend a research thesis at the Doctoral Final Oral Examination conducted by the Department of Medical Biophysics and the School of Graduate Studies.
- Except by special arrangement, students must attend the research institute or campus laboratory and participate full-time until all program requirements are completed.

Coursework. Students must complete a total of 3.5 full-course equivalents (FCEs) as follows:

- MBP1015Y0 Biophysics Seminar (1.0 FCE). Note that this is a continuous course which students must attend until their degree is completed.
- MBP1200H Scientific Exposition and Ethics (0.25 FCE).
- MBP1201H Biostatistics (0.25 FCE).
- One of the following two options:
  - a biology-stream module (0.25 FCE) or
  - a graduate course (0.25 FCE) chosen in consultation with the department that provides a foundation in biology.
- The balance of 1.75 FCE is chosen from any of the other course modules; or (with departmental approval) graduate courses in another department.
- Students must complete all required coursework by the end of Year 4 in order to achieve candidacy. Upon achieving candidacy, completion is noted on the student's transcript.
- Students must take a PhD Qualifying Examination in Year 2.
- Successful completion of a Doctoral Final Oral Examination of the student's research thesis.

Program Length

5 years

Time Limit

7 years

0 Course that may continue over a program. The course is graded when completed.
Medical Biophysics: Medical Biophysics
MSc, PhD Courses

Each September the department publishes a list of specific modules available to students during the following two academic years. Please consult with the department.

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<th>Course Title</th>
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<td>Biophysics Seminar</td>
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<tr>
<td>MBP1017H</td>
<td>Electron Cryomicroscopy for Protein Structure Determination</td>
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<tr>
<td>MBP1200H</td>
<td>Scientific Exposition and Ethics</td>
</tr>
<tr>
<td>(0.25 FCE)</td>
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<tr>
<td>MBP1201H</td>
<td>Biostatistics</td>
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<tr>
<td>(0.25 FCE)</td>
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<tr>
<td>MBP1300H</td>
<td>Quantitative Cancer Genomics</td>
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<td>MBP1301H</td>
<td>Radiation Oncology: Clinical and Experimental Radiobiology</td>
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<tr>
<td>MBP1302H</td>
<td>Structural Biology and Proteomics</td>
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<tr>
<td>MBP1303H</td>
<td>Cell Signaling and Metabolism</td>
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<tr>
<td>MBP1304H</td>
<td>Predictive Oncology and Therapeutics</td>
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<tr>
<td>MBP1305H</td>
<td>Experimental Models for Cancer Research</td>
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<td>MBP1306H</td>
<td>Cancer Epigenetics</td>
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<tr>
<td>MBP1307H</td>
<td>Development, Stem Cells, and Cancer</td>
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<tr>
<td>MBP1308H</td>
<td>Radiation Biology and DNA Repair</td>
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<td>MBP1309H</td>
<td>Clinical Imaging for Physical Scientists</td>
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<td>MBP1310H</td>
<td>Cancer Immunotherapy</td>
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<tr>
<td>MBP1311H</td>
<td>Tumour Microenvironment</td>
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<tr>
<td>MBP1400H</td>
<td>Advanced Magnetic Resonance Imaging</td>
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<tr>
<td>MBP1401H</td>
<td>Advanced Ultrasound</td>
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<tr>
<td>MBP1402H</td>
<td>Biological Imaging</td>
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<tr>
<td>MBP1403H</td>
<td>Biophysics of Focused Ultrasound, Thermal Biophysics</td>
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<tr>
<td>MBP1404H</td>
<td>Basics of Cell and Molecular Biology</td>
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<tr>
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<td>Introduction to Bio-Microscopies</td>
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<td>MBP1407H</td>
<td>Magnetic Resonance Imaging — Overview</td>
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<tr>
<td>MBP1408H</td>
<td>Medical Device Commercialization Essentials</td>
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<tr>
<td>MBP1409H</td>
<td>Medical Device Innovation and Entrepreneurship</td>
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<tr>
<td>MBP1410H</td>
<td>Nanotechnology for Medicine</td>
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<tr>
<td>MBP1411H</td>
<td>Overview of Medical Imaging</td>
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<td>(0.25 FCE)</td>
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<tr>
<td>MBP1412H</td>
<td>Ultrasound — Overview</td>
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<tr>
<td>MBP1413H</td>
<td>Biomedical Applications of AI</td>
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<tr>
<td>MBP1414H</td>
<td>Reading Special Topics</td>
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<tr>
<td>MBP1415H</td>
<td>Radiotherapy Physics (prerequisite: MBP1023H)</td>
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<tr>
<td>MBP1416H</td>
<td>Anatomy and Physiology (for Non-Specialists or Physicists)</td>
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<tr>
<td>MBP1417H</td>
<td>Introduction to Health Physics</td>
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</tbody>
</table>

_0 Course that may continue over a program. The course is graded when completed._
Medical Science

Medical Science: Introduction

Faculty Affiliation

Medicine

Degree Programs

Biomedical Communications

MScBMC

- Fields:
  - Biomedical Media Design;
  - Biomedical Visualization Design

Medical Science

MSc and PhD

- Fields:
  - Bioethics;
  - Biomedical Science;
  - Clinical Science;
  - Health Professions Education;
  - Population Health/Health Services;
  - Radiation Oncology

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Addiction Studies**
  - Medical Science, MSc, PhD
- **Aging, Palliative and Supportive Care Across the Life Course**
  - Medical Science, MSc, PhD
- **Bioethics**
  - Medical Science, MSc, PhD
- **Biomedical Engineering**
  - Medical Science, MSc, PhD
- **Cardiovascular Sciences**
  - Medical Science, MSc, PhD
- **Developmental Biology**
  - Medical Science, MSc, PhD
- **Environment and Health**
  - Medical Science, MSc, PhD
- **Genome Biology and Bioinformatics**
  - Medical Science, PhD
- **Global Health (U of T Global Scholar)**
  - Medical Science, PhD
- **Health Services and Policy Research**
  - Medical Science, MSc, PhD

- **Knowledge Media Design**
  - Medical Science, MSc, PhD
- **Musculoskeletal Sciences**
  - Medical Science, MSc, PhD
- **Neuromodulation**
  - Medical Science, MSc, PhD
- **Neuroscience**
  - Medical Science, MSc, PhD
- **Psychology, Psychiatry and Engineering**
  - Medical Science, MSc, PhD
- **Toxicology**
  - Medical Science, MSc, PhD
- **Women's Health**
  - Medical Science, MSc, PhD

Diploma Programs

Graduate Diploma in Health Research

GDipHR

Overview

With over 600 faculty and 550 students, the Institute of Medical Science (IMS) was established to foster education and scholarship in the Clinical Departments of the Faculty of Medicine. IMS specializes in translational research with a strong emphasis on bench-to-bedside clinical applications. Degree candidates have the opportunity to conduct research in one of four training areas: bio-medical science; clinical science; health systems and services; and population health. Graduates have been appointed to positions as academics and health-care professionals in universities, government, and industry.

Contact and Address

Medical Science Program

Web: ims.utoronto.ca/core-team
Telephone: (416) 946-8286
Fax: (416) 971-2253

Institute of Medical Science
University of Toronto
Medical Sciences Building
Room 2374, 1 King's College Circle
Toronto, Ontario M5S 1A8
Canada

Biomedical Communications Program

Web: bmc.med.utoronto.ca
Email: bmc.info@utoronto.ca
Telephone: (905) 569-4849

Master of Science in Biomedical Communications
University of Toronto Mississauga
HSC 308, 3359 Mississauga Road
Mississauga, Ontario L5L 1C6
Canada
Graduate Diploma in Health Research

Web: md.utoronto.ca/graduate-diploma-health-research-gdiphr
Email: gdip.hres@utoronto.ca
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Medical Science: Graduate Faculty

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Members Emeriti

Bombardier, Claire - MA, MD
Gorcynski, Reginald - BSc, BA, MA, MD, PhD
Krueger, Paul - BS, MHS, MSc, PhD
Levy, Gary - BSc, MD
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Sneed, III, Carter - BS, MD, MD
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Weisel, Richard - BA, MD
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Yeger, Herman - BSc, MScPhm, PhD

Associate Members

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Flo, Alejandro - MD
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Friedberg, Mark - MD
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Giacobbe, Peter - MD
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Goldstein, David - BA, MD
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Gomez Jaramillo, David - MD, PhD
Gonska, Tanja - MD
Grasemann, Hartmut - MD
Green, Robin - PhD
Gupta, Abha - MD
Gupta, Sumit - MD
Harnett, Nicole - BSc
Hassan, Ahmed - MBBS
Hatch, Wendy - MAsc
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Heyn, Chris - MD, PhD
Hiraki, Linda - MS, MD, ScD
Ho, Emily - BSc(OT), MEd, PhD, PhD
Hobson, Sebastian - MPH, BMedSc, MBBS, PhD
Hofer, Stefan - MD, PhD
Holden, Lori - BSc
Medical Science: Biomedical Communications MScBMC

Master of Science in Biomedical Communications

Program Description

The MScBMC is a 24-month, course-based professional graduate program that prepares students for careers in the visual communication of science, medicine, and health. Students in this interdisciplinary program explore the use of images, interactive technologies, and animation/simulation to effectively communicate complex science and health topics to a range of audiences.
The program offers two fields: Biomedical Media Design and Biomedical Visualization Design. Students take the same courses in Year 1 and then choose their field at the start of the Summer session between Year 1 and Year 2.

Field: Biomedical Media Design

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute of Medical Science’s additional admission requirements stated below.
- Graduation from a recognized university with an appropriate four-year bachelor's degree that includes a variety of courses in the arts, sciences, and humanities.
- Minimum mid-B standing in the final two years of undergraduate study. Prerequisite courses: English (or an effective writing substitute); a humanities or social science course; biology; cell and molecular biology and/or histology; introductory physiology.
- At least one third- or fourth-year undergraduate course, or graduate course, from one or more of the following subject areas: Biochemistry, Cell Biology, Embryology, Genetics, Histology, Immunology, Molecular Biology, Pharmacology, or Physiology.
- A high-quality portfolio of visual material; consult the MScBMC website for guidance.

Program Requirements

- **Coursework.** Students must complete 8.5 full-course equivalents (FCEs) as follows:
  - in Year 2, complete 1.5 FCEs: MSC2002H, MSC2012H, and MSC2018H
  - complete at least 1.0 FCE chosen from MSC2006H, MSC2008H, and MSC2015H
  - complete 1.0 FCE chosen from MSC2007H, MSC2011H, MSC2013Y, MSC2014H, and MSC2022H (or any other appropriate graduate course[s]).
- Students must complete MSC2025Y Master's Research Project for BMC.

Program Length

6 sessions (2 years) full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Field: Biomedical Visualization Design

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute of Medical Science's additional admission requirements stated below.
- Graduation from a recognized university with an appropriate four-year bachelor's degree that includes a variety of courses in the arts, sciences, and humanities.
- Minimum mid-B standing in the final two years of undergraduate study.
- At least one third- or fourth-year undergraduate course, or graduate course, from one or more of the following subject areas: Biochemistry, Cell Biology, Embryology, Genetics, Histology, Immunology, Molecular Biology, Pharmacology, or Physiology.
- A high-quality portfolio of visual material; consult the MScBMC website for guidance.

Program Requirements

- **Coursework.** Students must complete 8.5 full-course equivalents (FCEs) as follows:
  - in Year 2, complete 1.5 FCEs: MSC2002H, MSC2012H, and MSC2018H
  - complete 1.0 FCE: MSC2015H and MSC2017H
  - complete 1.0 elective FCE chosen from MSC2006H, MSC2007H, MSC2011H, MSC2014H, and MSC2022H (or any other appropriate graduate course[s]).
- Students must complete MSC2025Y Master's Research Project for BMC.

Program Length

6 sessions (2 years) full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Medical Science: Biomedical Communications MScBMC Courses

Consult the department each session regarding course offerings.
### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC1001Y</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>MSC2001Y</td>
<td>Visual Representation of Medical Knowledge</td>
</tr>
<tr>
<td>MSC2002H</td>
<td>Sequential Medical Communication</td>
</tr>
<tr>
<td>MSC2003Y</td>
<td>Biomedical Communications Technologies</td>
</tr>
<tr>
<td>MSC2004H</td>
<td>Research Methods</td>
</tr>
<tr>
<td>MSC2009H</td>
<td>Ethics and Professionalism in Biomedical Communications</td>
</tr>
<tr>
<td>MSC2012H</td>
<td>Neuroanatomy for Visual Communication</td>
</tr>
<tr>
<td>MSC2018H</td>
<td>Visual Representation of Processes in Human Pathology</td>
</tr>
<tr>
<td>MSC2020H</td>
<td>Visual Representation of Biomolecular Structure and Function</td>
</tr>
<tr>
<td>MSC2023H</td>
<td>Information Visualization (prerequisite: MSC1001Y; exclusion: MSC2019H)</td>
</tr>
<tr>
<td>MSC2025Y</td>
<td>Master's Research Project for BMC</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

### Elective Courses

Students are encouraged to take at least one of their electives in a graduate program other than Biomedical Communications.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC2006H</td>
<td>Advanced Media Design Technologies</td>
</tr>
<tr>
<td>MSC2007H</td>
<td>Visual Synthesis of Medical/Scientific Process</td>
</tr>
<tr>
<td>MSC2008H</td>
<td>Community-Centred Design Research</td>
</tr>
<tr>
<td>MSC2011H</td>
<td>Special Topics in Biomedical Communications</td>
</tr>
<tr>
<td>MSC2013Y</td>
<td>Master's Research Project and Paper</td>
</tr>
<tr>
<td>MSC2014H</td>
<td>Fundamentals of Scripting for Health Science Communication</td>
</tr>
<tr>
<td>MSC2015H</td>
<td>Interpretive Visualization: Cinematic Design and Preproduction</td>
</tr>
<tr>
<td>MSC2017H</td>
<td>Visualization Technology</td>
</tr>
<tr>
<td>MSC2022H</td>
<td>Graphic Medicine Seminar</td>
</tr>
</tbody>
</table>

### Medical Science: Medical Science MSc

#### Program Description

The MSc program is available in a wide range of basic sciences, clinical sciences, and population health research. Under the mentorship of a faculty member, a student receives specialized training and exposure to Toronto's finest multidisciplinary research. Students conduct research in one of six fields: Biometrics; Biomedical Science; Clinical Science; Health Professions Education; Population Health/Health Services; and Radiation Oncology.

The program emphasizes hands-on research, rather than coursework. Faculty conduct research in the following areas: cardiovascular sciences, bioethics, neuroscience, membrane biology, respiratory medicine, and psychosomatic medicine. The Institute of Medical Science (IMS) is the graduate unit of choice for undergraduates and MDs seeking training as clinician investigators, and graduates may seek positions as academics and health-care professionals in universities, government, and industry. The IMS participates in the Royal College of Physicians and Surgeons Clinical Investigator Program (CIP).

Students will complete the program in two years over six sessions.

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute of Medical Science's additional admission requirements stated below.
- An appropriate BSc or an MD degree from a recognized university and academic credentials and background preparation appropriate to the field of study. Qualified university graduates with a professional health science degree (for example, MD, BScN) or an undergraduate arts and science degree of appropriate background who wish to pursue graduate studies in basic or clinical biomedical sciences are encouraged to apply.
- Applicants lacking adequate background in biological, natural, or social sciences may be required to take undergraduate or graduate courses considered necessary to provide a proper basis for their research.
- A– (80%) average in the final year of undergraduate study and an A– cumulative average over three of the four total years of study.
- Applicants whose primary language is not English, and who graduated from a university where the language of instruction was not English, must demonstrate proficiency in the English language through the successful completion of one of the following English language proficiency tests:
  - **Test of English as a Foreign Language (TOEFL):**
    - a minimum score of 600 on the paper-based test and 5 on the Test of Written English (TWE); or
    - a minimum score of 100 on the Internet-based test and 25 on the writing and speaking sections.
  - **International English Language Testing System (IELTS):** minimum overall score of 7.5 with at least 6.5 in each component.
Certificate of Proficiency in English (COPE): minimum total of 86 with a minimum writing score of 32, reading score of 22, and listening score of 22. Test of Oral Proficiency assessment band = 7.

Program Requirements

- **Coursework.** Students must complete a minimum of 2.0 graduate full-course equivalent (FCEs) as follows:
  - 0.5 FCE: MSC1010H0 MSc Student Seminars in Translational Research (Credit/No Credit).
  - 0.5 FCE: MSC modular courses (two courses worth 0.25 FCE each).
  - 1.0 elective FCE.

- A research thesis and oral thesis examination.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

*Course that may continue over a program. Credit is given when the course is completed.*

Medical Science: Medical Science PhD

Doctor of Philosophy

Program Description

The PhD program is available in a wide range of basic sciences, clinical sciences, and population health research. Under the mentorship of a faculty member, a student receives specialized training and exposure to Toronto's finest multidisciplinary research. Students conduct research in one of six fields: Bioethics; Biomedical Science; Clinical Science; Health Professions Education; Population Health/Health Services; and Radiation Oncology.

The program emphasizes hands-on research, rather than coursework. Faculty conduct research in the following areas: cardiovascular sciences, bioethics, neuroscience, membrane biology, respiratory medicine, and psychosomatic medicine. The Institute of Medical Science (IMS) is the graduate unit of choice for undergraduates and MDs seeking training as clinician investigators, and graduates may seek positions as academics and health-care professionals in universities, government, and industry. IMS participates in the Royal College of Physicians and Surgeons Clinical Investigator Program (CIP).

Applicants may enter the PhD program via one of three routes: 1) following completion of a two-year, thesis-based MSc degree with a defended MSc thesis; 2) transfer from the IMS MSc program; or 3) direct entry following completion of an appropriate BSc or MD degree.

Completion of the PhD may take longer than the program length indicated below.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute of Medical Science (IMS)'s additional admission requirements stated below.
- Applicants whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate facility in the English language through the successful completion of one of the following English-language proficiency tests:
  - Test of English as a Foreign Language (TOEFL):
    - a minimum score of 600 on the paper-based test and 5 on the Test of Written English (TWE); or
    - a minimum score of 100 on the Internet-based test and 25 on the writing and speaking sections.
  - International English Language Testing System (IELTS): minimum overall score of 7.5 with at least 6.5 in each component.
- Applicants may be accepted into the PhD program after completing a two-year, thesis-based MSc degree (with a defended MSc thesis) with at least an A– standing from a recognized university.

Program Requirements

- Coursework. Students must complete a minimum of 2.0 graduate full-course equivalents (FCEs) as follows:
  - 0.5 FCE: MSC1011H0 PhD Student Seminars in Translational Research (Credit/No Credit).
  - 0.5 FCE: MSC modular courses (two courses worth 0.25 FCE each).
  - 1.0 elective FCE.

- Students may be required to take extra courses in addition to the degree requirements.

- A research thesis must be submitted, and the student must pass an IMS departmental oral examination before proceeding to the Doctoral Final Oral Examination conducted by the School of Graduate Studies.

- At the end of Year 3, students must have completed all program requirements exclusive of the thesis research in order to achieve candidacy.

- In cases where a student's prior academic background may have covered any of the courses listed above, substitutions will be required. Such substitutions can include any courses in IMS. For courses taken outside of this graduate unit, students should consult with their Graduate Coordinator.

Program Length

4 years

Time Limit

6 years
PhD Program (Transfer)

Transfer Requirements

- Applicants may be accepted into the PhD program via transfer from the University of Toronto MSc program. Outstanding students may be considered for reclassification/transfer into the PhD program without writing an MSc thesis.

Program Requirements

- Students must complete **3.0 graduate full-course equivalents (FCEs)** as follows:
  - 0.5 FCE: MSC1010H0 MSc Student Seminars in Translational Research (Credit/No Credit).
  - 0.5 FCE: MSC modular courses (two courses worth 0.25 FCE each).
  - 1.0 elective FCE with a minimum A– average.
  - The student will be evaluated in an oral transfer examination within 18 to 21 months of initial graduate registration.
  - The successful applicant will enter the PhD program and complete:
    - 0.5 FCE: MSC1011H0 PhD Student Seminars in Translational Research (Credit/No Credit) if credit for MSC1010H has not been obtained prior to transfer.
    - 1.0 elective FCE.

- A research thesis must be submitted, and the student must pass a qualifying examination within 18 to 21 months of starting the program.

- Students must pass an IMS departmental oral examination before proceeding to the Doctoral Final Oral Examination conducted by the School of Graduate Studies.

- At the end of Year 3, students must have completed all program requirements exclusive of the thesis research in order to achieve candidacy.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Institute of Medical Science (IMS)'s additional admission requirements stated below.
- Applicants whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate facility in the English language through the successful completion of one of the following English-language proficiency tests:
  - Test of English as a Foreign Language (TOEFL):
    - a minimum score of 600 on the paper-based test and 5 on the Test of Written English (TWE); or
    - a minimum score of 100 on the Internet-based test and 25 on the writing and speaking sections.
  - International English Language Testing System (IELTS): minimum overall score of 7.5 with at least 6.5 in each component.
- Students are accepted via direct entry into the PhD program after completing an appropriate BSc or an MD degree, without completing a two-year, thesis-based MSc degree.

Program Requirements

- Coursework. Students must complete a minimum of **3.0 graduate full-course equivalents (FCEs)** as follows:
  - 0.5 FCE: MSC1011H0 PhD Student Seminars in Translational Research (Credit/No Credit).
  - 0.5 FCE: MSC modular courses (two courses worth 0.25 FCE each).
  - 2.0 elective FCEs.

- Students may be required to take extra courses in addition to the degree requirements.

- Students must pass a qualifying examination within 18 to 21 months of starting the program.

- A research thesis must be submitted, and the student must pass an IMS departmental oral examination before proceeding to the Doctoral Final Oral Examination conducted by the School of Graduate Studies.

- At the end of Year 4, students must have completed all program requirements exclusive of the thesis research in order to achieve candidacy.

Program Length

5 years

Time Limit

7 years

Medical Science: Medical Science MSc, PhD Courses

Not all courses are offered each year. Check the departmental website for course availability.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>JCR1000Y</td>
<td>An Interdisciplinary Approach to Global Challenges</td>
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<tr>
<td>Course Code</td>
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<tr>
<td>JCV1060H</td>
<td>Developmental Cardiovascular Physiology</td>
</tr>
<tr>
<td>JCV3060H</td>
<td>Advanced Topics in Cardiovascular Sciences — Molecular Biology and Heart Signal Transduction</td>
</tr>
<tr>
<td>JCV3061H</td>
<td>Advanced Topics in Cardiovascular Sciences — Hormones and the Cardiovascular System</td>
</tr>
<tr>
<td>JCV3062H</td>
<td>Advanced Topics in Cardiovascular Sciences — Heart Function</td>
</tr>
<tr>
<td>JCV3063H</td>
<td>Advanced Topics in Cardiovascular Sciences — Vascular</td>
</tr>
<tr>
<td>JCV3065H</td>
<td>Advanced Topics in Cardiovascular Sciences — Systems Biology</td>
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<td>JDB1024Y</td>
<td>Topics in Developmental Biology (MSc)</td>
</tr>
<tr>
<td>JDB1025H</td>
<td>Developmental Biology (PhD)</td>
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<tr>
<td>JDB1026Y</td>
<td>Student Seminars in Developmental Biology (PhD)</td>
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<tr>
<td>JNP1014Y</td>
<td>Interdisciplinary Toxicology</td>
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<tr>
<td>JNP1016H</td>
<td>Graduate Seminar in Toxicology</td>
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<tr>
<td>JNP1017H^</td>
<td>Current Topics in Molecular and Biochemical Toxicology</td>
</tr>
<tr>
<td>JNP1018H^</td>
<td>Molecular and Biochemical Basis of Toxicology</td>
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<tr>
<td>JNR1444Y</td>
<td>Fundamentals of Neuroscience — Cellular and Molecular</td>
</tr>
<tr>
<td>JNS1000Y</td>
<td>Fundamentals of Neuroscience — Systems and Behaviour</td>
</tr>
<tr>
<td>JPM1005Y</td>
<td>Behavioural Pharmacology</td>
</tr>
<tr>
<td>JTB2010H</td>
<td>Proteomics and Functional Genomics</td>
</tr>
<tr>
<td>JTB2020H</td>
<td>Applied Bioinformatics</td>
</tr>
<tr>
<td>MSC1001Y</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>MSC1004H</td>
<td>Health and Pharmaceuticals (exclusion: HST440H)</td>
</tr>
<tr>
<td>MSC1006H</td>
<td>Neuroanatomy</td>
</tr>
<tr>
<td>MSC1008H</td>
<td>Advanced Human Embryology and Teratology (exclusion: ANA301H Human Embryology)</td>
</tr>
<tr>
<td>MSC1010H^</td>
<td>MSc Student Seminars in Translational Research (Credit/No Credit)</td>
</tr>
<tr>
<td>MSC1011H^</td>
<td>PhD Student Seminars in Translational Research (Credit/No Credit)</td>
</tr>
<tr>
<td>MSC1030H</td>
<td>Learning from Data — Introduction to Study Design and Statistical Analysis Methods</td>
</tr>
<tr>
<td>MSC1040H</td>
<td>Physiologic Basis of Disease</td>
</tr>
<tr>
<td>MSC1081H</td>
<td>Studies in Schizophrenia</td>
</tr>
<tr>
<td>MSC1085H</td>
<td>Molecular Approaches to Mental Health and Addictions</td>
</tr>
<tr>
<td>MSC1087H</td>
<td>Neuroimaging Methods Using Magnetic Resonance Imaging</td>
</tr>
<tr>
<td>MSC1089H</td>
<td>The Biopsychosocial Basis of Mental Health and Addictive Disorders</td>
</tr>
<tr>
<td>MSC1090H</td>
<td>Introduction to Computational Biostatistics with R</td>
</tr>
<tr>
<td>MSC1100H</td>
<td>Success in Graduate School: a Professional Development Module for MSc Students (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1101H</td>
<td>Success After Graduate School: a Professional Development Module for PhD Students (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1102H</td>
<td>Psychiatric Implications of Traumatic Brain Injury (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1103H</td>
<td>Knowledge Translation (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1104H</td>
<td>Neurodegenerative Disease (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1105H</td>
<td>Clinical Trials (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1106H</td>
<td>GREAT Network Epidemiology, Biostatistics, and Surveillance Practicum (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1107H</td>
<td>Biostatistics in a Nut Shell (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1108H</td>
<td>Animal Models of Human Diseases</td>
</tr>
<tr>
<td>MSC1109H</td>
<td>Introduction to Neuroimaging (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1110H^</td>
<td>Strategic Training in Transdisciplinary Radiation Science for 21st Century (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1111H</td>
<td>Strategies for Systematic, Scoping, or Other Comprehensive Searches of Literature (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1113H</td>
<td>Radiomics and Machine Learning for Medical Imaging (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1114H</td>
<td>Artificial Intelligence in Medicine (Credit/No Credit) (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1115H</td>
<td>Digital Image Analysis for Cellular Microscopy (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1116H</td>
<td>Individualized Reading/Research Course (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1117H</td>
<td>Light Microscopy Basics for Life Sciences (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1118H</td>
<td>Natural Language Processing for Medicine (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1119H</td>
<td>Epigenetics Applications in Human Health and Disease (0.25 FCE)</td>
</tr>
<tr>
<td>MSC1120H</td>
<td>Gene Expression Profiling with Real Time PCR (0.25 FCE)</td>
</tr>
</tbody>
</table>
### Medical Science: Health Research GDipHR

**Graduate Diploma in Health Research**

**Program Description**

The Graduate Diploma in Health Research provides a select group of medical students high-quality training in health research in order to understand, interpret, and apply the rapid changes in the scientific underpinnings of health care. Future physicians will gain skills relevant to contributing to health-related studies in their future careers, some of whom will become leaders of health research. Taken concurrently with the MD program, the Graduate Diploma in Health Research aims to engage medical students in health research with the intent to develop applicable knowledge and skills that will inform and support a future career in any field of health research.

**Minimum Admission Requirements**

- Diploma students must meet the School of Graduate Studies minimum admission requirements for master's-level diploma programs. Applicants must be enrolled, and in good academic standing, in Year 1 of the MD program of the Temerty Faculty of Medicine of the University of Toronto.
- Applicants must submit the following:
  - curriculum vitae (CV)
  - a personal statement explaining their interest in the program
  - written confirmation of Good Standing in the MD program (letter from the program, signed by the Registrar or Vice-Dean
  - undergraduate and/or graduate academic transcripts.

**Program Requirements**

- Students must complete a total of **2.5 full-course equivalents (FCEs)** as follows:
  - Two required courses (2.0 FCEs):
    - MSC1991Y Supervised Research Project (Credit/No Credit).
    - MSC1992Y Research Skills for the Physician-Scientist (Credit/No Credit).
  - 0.5 elective FCE selected from an approved list. Substitution of any other graduate-level course relevant to the student's research course but not found on the approved list will require completion of a course exemption form signed by the Institute of Medical Science's Graduate Coordinator. The selection of the course will be done in consultation with the Program Director.
- Students must maintain good academic standing in the MD program throughout.

**Program Length**

5 sessions part-time (W/S/F/W/S)

**Time Limit**

8 sessions part-time

<table>
<thead>
<tr>
<th><strong>Course Code</strong></th>
<th><strong>Course Title</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC1991Y</td>
<td>Supervised Research Project (Credit/No Credit)</td>
</tr>
<tr>
<td>MSC1992Y</td>
<td>Research Skills for the Physician-Scientist (Credit/No Credit)</td>
</tr>
</tbody>
</table>

* Course that may continue over a program. Credit is given when the course is completed.

### Approved Elective Courses by Graduate Unit

**Health Policy, Management and Evaluation (Dalla Lana School of Public Health)**

<table>
<thead>
<tr>
<th><strong>Course Code</strong></th>
<th><strong>Course Title</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD5301H</td>
<td>Introduction to Clinical Epidemiology and Health Care Research</td>
</tr>
<tr>
<td>HAD5744H</td>
<td>Applied Health Econometrics I</td>
</tr>
</tbody>
</table>
HAD6760H | Introduction to Health Services and Systems Research Theory and Methods
MHI3000H | Independent Reading for Health Informatics

**Laboratory Medicine and Pathobiology (Temerty Faculty of Medicine)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP1100H</td>
<td>Cellular Imaging in Pathobiology</td>
</tr>
<tr>
<td>LMP1103H</td>
<td>Tissue Injury, Repair, and Regeneration</td>
</tr>
<tr>
<td>LMP1202H</td>
<td>Inflammation, Immunity, and Immunopathology of Atherosclerosis</td>
</tr>
<tr>
<td>LMP1205H</td>
<td>The Role of Genomics in the Era of Personalized Medicine</td>
</tr>
<tr>
<td>LMP1206H</td>
<td>Next Generation Genomics in Clinical Medicine</td>
</tr>
<tr>
<td>LMP1207H</td>
<td>Mass Spectrometry, Proteomics, and Their Clinical Applications</td>
</tr>
<tr>
<td>LMP1208H</td>
<td>Molecular Clinical Microbiology and Infectious Diseases</td>
</tr>
<tr>
<td>LMP1209H</td>
<td>Neurodegenerative Disease — Mechanisms, Models, and Methods</td>
</tr>
<tr>
<td>LMP1504H</td>
<td>Cell and Molecular Biology of Cardiovascular Diseases</td>
</tr>
<tr>
<td>LMP1510H</td>
<td>Molecular Biology Techniques</td>
</tr>
</tbody>
</table>

**Medical Science (Temerty Faculty of Medicine)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCV3060H</td>
<td>Advanced Topics in Cardiovascular Sciences — Molecular Biology and Heart Signal Transduction</td>
</tr>
<tr>
<td>JCV3061H</td>
<td>Advanced Topics in Cardiovascular Sciences — Hormones and the Cardiovascular System</td>
</tr>
<tr>
<td>JCV3062H</td>
<td>Advanced Topics in Cardiovascular Sciences — Heart Function</td>
</tr>
<tr>
<td>JCV3063H</td>
<td>Advanced Topics in Cardiovascular Sciences — Vascular</td>
</tr>
<tr>
<td>MSC1081H</td>
<td>Studies in Schizophrenia</td>
</tr>
<tr>
<td>MSC1087H</td>
<td>Neuroimaging Methods Using Magnetic Resonance Imaging</td>
</tr>
<tr>
<td>MSC1089H</td>
<td>The Biopsychosocial Basis of Mental Health and Addictive Disorders</td>
</tr>
</tbody>
</table>
Medieval Studies

Medieval Studies: Introduction

Faculty Affiliation
Arts and Science

Degree Programs

Medieval Studies

MA and PhD
- Fields:
  - Auxiliary Sciences;
  - History and Religion;
  - Language and Literature;
  - Music and Art;
  - Philosophy and Theology

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Ancient and Medieval Philosophy
  - Medieval Studies, PhD
- Book History and Print Culture
  - Medieval Studies, MA, PhD
- Food Studies
  - Medieval Studies, PhD
- Jewish Studies
  - Medieval Studies, MA, PhD
- Sexual Diversity Studies
  - Medieval Studies, MA, PhD
- Women and Gender Studies
  - Medieval Studies, MA, PhD

Overview

The Centre for Medieval Studies is concerned with the history, thought, and artistic expression of the various cultures of Europe and adjacent regions over the course of a millennium (circa 500 to 1500). The Centre for Medieval Studies in Toronto has an international reputation, resting on the wide-ranging interests of its faculty, the calibre and preparation of its graduates, and its outstanding library facilities.

The Centre for Medieval Studies provides interdepartmental programs in the medieval period. Students are expected to cross the limits of traditional subjects, and research is especially encouraged in often-neglected boundary areas between traditional departments.

The centre offers its students training in basic skills and tools in order to read the materials remaining from the medieval past and to explore them with learning and imagination. All students entering the centre are asked to improve their proficiency in Latin before registration, since there are Medieval Latin requirements for all degrees. Examinations in Medieval Latin are set at the beginning of the Fall session for placement purposes.

Contact and Address

Web: medieval.utoronto.ca
Email: medieval.studies@utoronto.ca
Telephone: (416) 978-4884

Centre for Medieval Studies
University of Toronto
3rd Floor, 125 Queen's Park
Toronto, Ontario M5S 2C7
Canada

Medieval Studies: Graduate Faculty

Full Members

Akbari, Suzanne - BA, MA, MPH, PhD
Bartlett, Kenneth - BA, MA, PhD
Black, Deborah - BA, MA, PhD
Bowen, William - BA, BMus, MA, PhD
Brilli, Elisa - MA, PhD (Director)
Cascy, Jill - AB, MA, MPH, PhD
Cochelin, Isabelle - DipdESup, BA, MA, PhD
Cohen, Adam - PhD
Dewar, Michael - BA, MA, DPhil
Dimnik, Martin - BA, MA, MDiv, DPhil
Everett, Nicholas - BA, MA, PhD
Gervers, Michael - BA, MA, PhD
Ghosh, Shami - BA, MA, PhD
Gillespie, Alexandra - BA, BSc, PhD
Ginther, James - BA, MA, PhD
Guenther, Sebastian - MA, PhD
Haines, John - BSc, BA, MA, PhD
Hall, Bert - BA, PhD
Herren, Michael - PhD
Holmstedt, Robert - BA, MA, PhD
Iglesias, Yolanda - BA, BA, MA, PhD
Keith, Alison - BA, MA, PhD, FRSC
King, Peter - BA, PhD
Kivimae, Juri - AM, PhD
Kullmann, Dorothea - PhD
Magee, John - BA, MA, PhD
Meyerson, Mark - BA, PhD
Miles, Brent - PhD
Momma, Haruko - BA, MA, MA, PhD
Percy, Carol - BA, MA, DPhil
Pickavé, Martin - MA, PhD
Piemno, Franco - BA, MA, PhD
Robins, William - BA, MPH, PhD
Ross, Jill - BA, MA, PhD
Rozemond, Marleen - BA, PhD
Saleh, Walid - BA, MA, PhD
Silano, Giulio - BA, LLB, BEd, MA, PhD
Smith, Kyle - BA, MA, PhD
Stock, Markus - MA, PhD
Subtelny, Maria - BA, PhD
Terpstra, Nicholas - BA, MA, PhD
Welsh, Jarrett - BA, MA, PhD

Members Emeriti

Armstrong, Lawrin - BA, MA, MA, MDiv, PhD
Burke, James - BA, MA, PhD
Medieval Studies: Medieval Studies MA

Master of Arts

Program Description

Students may be admitted to a one-year MA program as full-time or part-time.

Students may obtain an MA in Medieval Studies by coursework or by a combination of coursework plus thesis.

MA Program (Coursework Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for Medieval Studies' additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with an average grade of at least a B+ in previous courses. Coursework in the medieval period must have formed part of the program.
- Applicants are required to have taken at least one full-year Latin introductory course with a grade of at least B+ or equivalent.
- Applicants for the MA degree, full-time and part-time, must:
  - Follow the [application instructions](#) on the department's website.
  - Complete forms in which they state the reasons for undertaking graduate studies in the medieval area and their qualifications for applying to do so.

Program Requirements

- MA students must pass the Level One Medieval Latin examination upon arrival or else attain credit in MST1000Y (1.0 full-course equivalent [FCE]) in the first year of enrolment in the MA program.
- For the coursework option, students:
  - Who pass the Level One Latin examination upon arrival must successfully complete 3.0 FCEs.
  - Who do not pass the Level One Latin examination on arrival must successfully complete 4.0 FCEs (including MST1000Y).
- In the MA program, course training in Latin is given at two levels. All students are expected to arrive with knowledge equivalent to at least a first-year university course in Latin language. MST1000Y Medieval Latin I is the MA-level course. While this course is preparatory to the departmental Level One Latin examination, a pass in the course does not guarantee a pass of the departmental examination at the corresponding level. Advanced seminars are open to those MA students who have achieved a pass of the Level Two Latin examination.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

MA Program (Coursework-Plus-Thesis Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for Medieval Studies' additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with an average grade of at least a B+ in previous courses. Coursework in the medieval period must have formed part of the program.
- Applicants are required to have taken at least one full-year Latin introductory course with a grade of at least B+ or equivalent.
- Applicants for the MA degree, full-time and part-time, must:
  - Follow the [application instructions](#) on the department's website.
  - Complete forms in which they state the reasons for undertaking graduate studies in the medieval area and their qualifications for applying to do so.
Program Requirements

- MA students must pass the Level One Medieval Latin examination upon arrival or else attain credit in MST1000Y (1.0 FCE) in Year 1 of the MA program.
- For the coursework-plus-thesis option, students must successfully complete:
  - Coursework: 3.0 FCEs or 2.0 FCEs plus a pass at the Level One Latin examination upon arrival in the program.
  - A thesis. An MA thesis must be on a topic approved by the Centre for Medieval Studies. The topic must be submitted to the Centre by November 30 of the MA year.
- In the MA program, course training in Latin is given at two levels. All students are expected to arrive with knowledge equivalent to at least a first-year university course in Latin language. MST1000Y Medieval Latin I is the MA-level course. While this course is preparatory to the departmental Level One Latin examination, a pass in the course does not guarantee a pass of the departmental examination at the corresponding level. Advanced seminars are open to those MA students who have achieved a pass of the Level Two Latin examination.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Medieval Studies: Medieval Studies PhD

Doctor of Philosophy

Program Description

The PhD is offered only on a full-time basis. Applicants may enter the PhD program via one of two routes: 1) following completion of a master's degree in medieval studies or a related field; or 2) direct entry after completing an appropriate bachelor's degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for Medieval Studies (CMS)’s additional admission requirements stated below.
- Applicants enter with a master's degree in medieval studies or a related field from a recognized university with an average grade of at least A– in the applicant's overall program. Students in the CMS MA program must apply formally for admission to the PhD program on the same basis as all other applicants.
- All applicants must:
  - Follow the application instructions on the department's website.
  - Complete the forms in which they state the reasons for undertaking graduate studies in the medieval area and their qualifications for applying to do so.
  - Pass the Level One Latin examination before they may register in the PhD program.

Program Requirements

- During Years 1 and 2, students must take a minimum of 3.0 full-course equivalents (FCEs), i.e., 2.0 FCEs in a major field and 1.0 FCE in a minor field. In view of the CMS's interdepartmental nature, some of these courses on the Middle Ages can be taken in other departments, with the approval of the PhD coordinator. MST1001Y may not be counted towards the 1.0 FCE minor field requirements or included in the 3.0 FCEs minimum for the degree; but it must be taken in addition to the 3.0 FCEs minimum by all those who do not pass the Level Two Latin examination right before or upon arrival in the program. In addition to the 3.0 FCEs minimum, MST1003H Professional Development for Medieval Studies PhDs (Credit /No Credit) must be taken by all students over the course of the first three years of registration.
- In the PhD program, course training in Latin is given at two levels. **MST1001Y Medieval Latin II** is the PhD-level course. While this course is preparatory to the departmental Level Two Latin examination, a pass in the course does not guarantee a pass of the departmental examination at the corresponding level. Advanced seminars are open to those with either prior credit in MST1001Y or else a pass of the Level Two Latin examination. These seminars thus serve both advanced students of medieval Latin as well as those who have passed MST1001Y but require further training in order to achieve the Level Two Latin examination pass.
- By the end of the Fall session of Year 2, students should have a full Advisory Committee, consisting of a supervisor and two other members. The Advisory Committee must be formally approved by the PhD coordinator.
- During the Spring session of the same academic year, students should develop the Special Field Proposal in consultation with the Advisory Committee. The proposal must be prepared according to CMS guidelines and consists of three documents:
  - The Reading List (minimum 150 and maximum 250 items, including both primary and secondary sources) — should be submitted to the Advisory Committee members by June 30 of Year 2.
  - A brief (one to two pages) description of scope of the Reading List.
  - The Special Field Proposal Form, which alone should be submitted to the PhD coordinator and graduate administrator at this time.
- **Special Field Examination:** the purpose is to demonstrate both the student's scholarly expertise in the particular area of doctoral dissertation and a broader academic competence. The Special Field Examination consists of the following:
  - The Field paper (approximately 8,000 to 12,000 words, including footnotes) — should be submitted to the Advisory Committee members and the CMS Executive Committee for approval by January 15 of Year 3.
The Syllabus — should be submitted, together with the final version of the Field paper, to the Advisory Committee members by March 31 of Year 3.

The Special Field Examination — a two-hour-long oral exam to be held by April 30 of Year 3, and graded on a pass/fail basis. The Advisory Committee, in consultation with the Executive Committee, has the discretion to determine if a student may retake the Special Field Examination. Only one retake is permitted and must take place within two months of the first exam. Students who do not pass the Special Field Examination before the beginning of Year 4 will be recommended to SGS for termination of registration.

Students must pass the Level Two Latin examination and the CMS’s examinations in the French and German languages before moving on to the Special Field Examination. In exceptional cases, a student may petition to replace one of the modern languages (French and German) with another language in their area of research. A written request, with a signed confirmation of support for the petition from the supervisor, must be submitted as early as possible, and no later than the end of the Fall session of Year 2 for consideration by the Executive Committee. In the case of a successful petition, the student will be expected to take the exam no later than the next examination date. Such substitute examinations will be offered no more than two times per year (April and September). Failure to pass all the language exams by the end of Year 3 leads to an automatic failure of the Special Field Examination and thus, to termination from the program.

The candidate will be required to defend the dissertation at the Doctoral Final Oral Examination.

It is possible to complete a PhD in Medieval Studies in four years, but most students, depending on their background preparation, find that it takes at least five years.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Centre for Medieval Studies (CMS)'s additional admission requirements stated below.

Applicants enter with an appropriate bachelor's degree from a recognized university with an average grade of at least A– in the applicant’s overall program. Coursework in the medieval period must have formed part of the program.

All applicants must:

- Follow the application instructions on the department’s website.
- Complete the forms in which they state the reasons for undertaking graduate studies in the medieval area and their qualifications for applying to do so.
- Pass the Level One Latin examination before they may register in the PhD program.

Program Requirements

- During Years 1, 2, and 3, students must take a minimum of 5.0 full-course equivalents (FCEs), including 2.0 FCEs in a major field and 1.0 FCE in a minor field. In view of the CMS’s interdepartmental nature, some of these courses on the Middle Ages can be taken in other departments, with the approval of the PhD coordinator. MST1001Y may not be counted towards the 1.0 FCE minor field requirements or included in the 5.0 FCEs minimum for the degree, but it must be taken in addition to the 5.0 FCEs minimum by all those who do not pass the Level Two Latin examination right before or upon arrival in the program. In addition to the 5.0 FCEs minimum, MST1003H Professional Development for Medieval Studies PhDs (Credit/No Credit) must be taken by all students over the course of the first three years of registration.

- In the PhD program, course training in Latin is given at two levels. MST1001Y Medieval Latin II is the PhD-level course. While this course is preparatory to the departmental Level Two Latin examination, a pass in the course does not guarantee a pass of the departmental examination at the corresponding level. Advanced seminars are open to those with either prior credit in MST1001Y or else a pass of the Level Two Latin examination. These seminars thus serve both advanced students of medieval Latin as well as those who have passed MST1001Y but require further training in order to achieve the Level Two Latin examination pass.

- By the end of the Fall session of Year 3, students should have a full Advisory Committee, consisting of a supervisor and two other members. The Advisory Committee must be formally approved by the PhD coordinator.

- During the Spring session of the same academic year, students should develop the Special Field Proposal in consultation with the Advisory Committee. The proposal must be prepared according to CMS guidelines and consists of three documents:
  - The Reading List (minimum 150 and maximum 250 items, including both primary and secondary sources) — should be submitted to the Advisory Committee members by June 30 of Year 2.
  - A brief (one to two pages) description of scope of the Reading List.
  - The Special Field Proposal Form, which alone should be submitted to the PhD coordinator and graduate administrator at this time.

- Special Field Examination: the purpose is to demonstrate both the student’s scholarly expertise in the particular area of doctoral dissertation and a broader academic competence. The Special Field Examination consists of the following:
  - The Field paper (approximately 8,000 to 12,000 words, including footnotes) — should be submitted to the Advisory Committee members and the CMS Executive Committee for approval by January 15 of Year 3;
  - The Syllabus — should be submitted, together with the final version of the Field paper, to the Advisory Committee members by March 31 of Year 3.
The Special Field Examination — a two-hour-long oral exam to be held by April 30 of Year 3, and graded on a pass/fail basis. The Advisory Committee, in consultation with the Executive Committee, has the discretion to determine if a student may retake the Special Field Examination. Only one retake is permitted and must take place within two months of the first exam. Students who do not pass the Special Field Examination before the beginning of Year 4 will be recommended to SGS for termination of registration.

- Students must pass the Level Two Latin examination and the CMS’s examinations in the French and German languages before moving on to the Special Field Examination. In exceptional cases, a student may petition to replace one of the modern languages (French and German) with another language in their area of research. A written request, with a signed confirmation of support for the petition from the supervisor, must be submitted as early as possible, and no later than the end of the Fall session of Year 2 for consideration by the Executive Committee. In the case of a successful petition, the student will be expected to take the exam no later than the next examination date. Such substitute examinations will be offered no more than two times per year (April and September). Failure to pass all the language exams by the end of the Spring session of Year 4 leads to an automatic failure of the Special Field Examination and thus to termination from the program.

- The candidate will be required to defend the dissertation at the Doctoral Final Oral Examination.

- It is possible to complete a direct-entry PhD in Medieval Studies in five years but some students, depending on their background preparation, find that it takes longer than five years. Students intending to work in an area of medieval studies that requires the acquisition of one or more extra languages may find that it is not possible to complete a doctorate within five years.

### Program Length

5 years

### Time Limit

7 years

### Medieval Studies: Medieval Studies MA, PhD Courses

Not all courses are offered every year. Please consult the Centre for Medieval Studies (CMS)’ website which lists the courses that will be offered this year as well as those offered by associated departments. A graduate course is understood to require at least two hours per week of class meeting and such research hours as may be required.

### Art History

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>FAH1118H</td>
<td>The Medieval Treasury</td>
</tr>
<tr>
<td>FAH1119H</td>
<td>Global Medieval Art in China</td>
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</tbody>
</table>

### Book History and Print Culture

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<tr>
<td>BKS1001H</td>
<td>Introduction to Book History</td>
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<tr>
<td>BKS1002H</td>
<td>Book History in Practice</td>
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<td>BKS2000H</td>
<td>Advanced Seminar in Book History and Print Culture</td>
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<td>BKS2001H</td>
<td>Individual Practicum in Book History and Print Culture</td>
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### Classics

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<td>CLA5007H</td>
<td>Criticism of Latin Poetry</td>
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### Comparative Literature

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<tr>
<td>COL5032H</td>
<td>Feminist Approaches to Medieval Literature</td>
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<td>COL5086H</td>
<td>Literature, Culture, and Contact in Medieval Iberia</td>
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### English

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<td>ENG1002H</td>
<td>Introduction to Old English II: Beowulf</td>
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<td>ENG1551H</td>
<td>The Canterbury Tales</td>
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### French Language and Literature

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<td>Initiation au français médiéval</td>
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<tr>
<td>FRE1203H</td>
<td>Séminaire de littérature II : période</td>
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### Germanic Languages and Literatures

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### History

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<td>HIS1213H</td>
<td>Medieval Institutes of Perfection (joint graduate/undergraduate)</td>
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<tr>
<td>HIS1215H</td>
<td>Social Change in Medieval England, 1154–1279</td>
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<tr>
<td>HIS1221H</td>
<td>Topics in Early Modern European Social History</td>
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### Italian Studies

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<tr>
<td>ITA1200H</td>
<td>Dante</td>
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<td>ITA1202H</td>
<td>Dante as a Reader of Augustine's City of God: Augustinian Textual Communities at the Beginning of the 14th Century</td>
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<td>ITA1203H</td>
<td>Boccaccio</td>
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<td>ITA1330H</td>
<td>Petrarch and Petrarchism</td>
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<td>ITA1535H</td>
<td>Topics in Italian Literature</td>
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<tr>
<td>ITA1540H</td>
<td>Renaissance Italian Theatre</td>
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<td>ITA1597H</td>
<td>The Commedia dell'Arte</td>
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### Medieval Studies

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<td>Advanced Medieval Latin: Boethius</td>
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<tr>
<td>MST1003H</td>
<td>Professional Development for Medieval Studies PhDs</td>
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<tr>
<td>MST1015H</td>
<td>Medieval Representation of Sexual Diffidence</td>
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<td>MST1020H</td>
<td>The Medieval Latin Epic</td>
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<tr>
<td>MST1021H</td>
<td>The Bibliographic Imagination in the Middle Ages</td>
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<tr>
<td>MST1022H</td>
<td>Transmission and Reception: the Survival and Use of the Latin Classics</td>
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<td>(Prerequisite: Level One Latin Pass, or permission of instructor. MST1104H or MST1105H is recommended.)</td>
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<tr>
<td>MST1023H</td>
<td>Early Medieval Latin and Greek Poetry</td>
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<tr>
<td>MST1101H</td>
<td>Codicology</td>
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<tr>
<td>MST1102H</td>
<td>Practical Palaeography</td>
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<tr>
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<td>MST1115H</td>
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<td>MST1117H</td>
<td>Medieval English Handwriting, 1300–1500</td>
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<td>MST1327H</td>
<td>Death, Dying, and Society in Medieval Northern Europe</td>
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<td>MST1370H</td>
<td>From Farm to Market: Social and Economic Transformation in Medieval Europe</td>
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<td>Why Europe Grew Rich and Asia Did Not: the Great Divergence Debate</td>
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<td>English Language and Literature in Transition, 1100–1250</td>
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<td>Poetry and Prose of the Vercelli Book</td>
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<td>MST1384H</td>
<td>The Exeter Book of Old English Verse</td>
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<td>MST1398H</td>
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<td>Introduction to the Study of Magic in the Middle Ages</td>
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<td>MST2018H</td>
<td>Introduction to Celtic Latin</td>
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<td>MST2030H</td>
<td>Old Irish Texts (Prerequisite: MST2029H or equivalent. Exclusion: MST2030Y.)</td>
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<td>MST2030Y</td>
<td>Old and Middle Irish</td>
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<tr>
<td>MST2031H</td>
<td>Topics in Medieval Celtic Literature</td>
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<tr>
<td>MST2032H</td>
<td>Medieval Irish Poetry 500–1600</td>
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<td>Textual Studies in Medieval Irish Poetry</td>
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<tr>
<td>MST2037H</td>
<td>Legendary History of Britain and Ireland from Celtic Sources</td>
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<td>MST2040H</td>
<td>Beginnings of Medieval Rhetoric and Poetics</td>
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<td>MST2048H</td>
<td>Music in Medieval Life</td>
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<td>MST2042H</td>
<td>Medieval Literary Theory in the Later Middle Ages</td>
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<td>Introduction to Middle Welsh</td>
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<td>Introduction to Ge’ez (Classical Ethiopic)</td>
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<tr>
<td>MST3016H</td>
<td>Intermediate Ge’ez (Classical Ethiopic) (Prerequisite: MST3015H.)</td>
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<td>Boethius</td>
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<td>Consolation Through the Ages: Later Medieval Approaches to Boethius’s Consolation of Philosophy</td>
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<td>MST3035H</td>
<td>Medieval Representations of Death, Sickness, and Crime (1100–1500)</td>
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<td>Introduction to Medieval Medicine</td>
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<td>MST3124H</td>
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<td>MST3126H</td>
<td>The Apocalypse in Medieval English Literature</td>
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<td>Texts and the City in Medieval Northern Europe</td>
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<td>MST3135H</td>
<td>Digital Old English</td>
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<td>MST3140Y</td>
<td>Medieval Catalan Language and Literature</td>
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<td>MST3150H</td>
<td>Medieval French Epic: Kings and Heroes</td>
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<td>MST3164H</td>
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<td>MST3205H</td>
<td>Violence in Medieval Society</td>
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<td>MST3207H</td>
<td>Decretists and Decretalists: Canonical Jurisprudence 1140–1300</td>
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<td>Jews and Christians in Medieval and Renaissance Europe</td>
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<td>Clio’s Workshop: Introduction to Historical Methods</td>
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<td>Vernacular Literature in Medieval Europe: Status and Function (Prerequisite: basic reading knowledge of Latin and at least one medieval vernacular language.)</td>
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<td>Communal Florence, 1150–1530</td>
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<td>MST3237H</td>
<td>Monastic Rules and Customaries</td>
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<td>MST3241H</td>
<td>Everyday Life in Medieval Europe</td>
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<td>Carolingian Europe 750–900 CE</td>
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<td>The Merovingians</td>
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<td>Emperor, Antichrist, World-Wonder: Frederick II of Sicily</td>
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<td>MST3309H</td>
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<td>Late Antique and Early Medieval Philosophical Commentators</td>
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<td>Crime and Punishment in the Middle Ages</td>
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<td>The Culture of Food, Cooking, and Diet Through Daily Life and Tradition in Medieval Europe</td>
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<td>Historical Archives in the Digital Age: Books Along the Silk Roads</td>
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Near and Middle Eastern Civilizations

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<td>The Prophet and the Caliphates: Early Islamic History to 1258</td>
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<tr>
<td>NMC2221H</td>
<td>Persian Mirrors for Princes</td>
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<td>Medieval Persian Historiography and Diplomatics</td>
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Slavic Languages and Literatures

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Molecular Genetics

Molecular Genetics: Introduction

Faculty Affiliation

Medicine

Degree Programs

Genetic Counselling

MSc

Medical Genomics

MHSc

Molecular Genetics

MSc and PhD

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Developmental Biology
  - Molecular Genetics, MSc, PhD
- Genome Biology and Bioinformatics
  - Molecular Genetics, PhD
- Next-Generation Precision Medicine
  - Molecular Genetics, PhD

Overview

The Department of Molecular Genetics is administered from the Medical Sciences Building and has nearly 100 faculty members whose labs are located within the Medical Sciences Building, the MaRS Centre, the Donnelly Centre, the Hospital for Sick Children, Mount Sinai Hospital, and the Ontario Institute for Cancer Research.

Faculty members run a variety of research programs in diverse areas such as genetic models of development and disease; molecular medicine and human genetics; cellular and molecular structure and function; molecular microbiology and infectious disease; computational and systems biology; functional genomics and proteomics.

Contact and Address

Web: [www.moleculargenetics.utoronto.ca](http://www.moleculargenetics.utoronto.ca)
Email: graduate.coordinator@utoronto.ca
Telephone: (416) 978-8359
Fax: (416) 978-6885

Department of Molecular Genetics
University of Toronto
Medical Sciences Building
Room 4398, 1 King's College Circle
Toronto, Ontario M5S 1A8
Canada

Molecular Genetics: Graduate Faculty

Full Members

Andrews, Brenda Jean - BSc, PhD
Andrulis, Irene - BA, PhD
Aubin, Jane - BSc, PhD
Awadalla, Philip - PhD
Babaian, Artem - PhD
Bader, Gary - BSc, PhD
Blencowe, Benjamin - BSc, PhD
Boone, Charlie - BSc, PhD
Boulianne, Gabrielle - BSc, PhD
Brill, Julie - PhD
Brown, Martha - BSc, MSc, PhD
Brumell, John - BSc, PhD
Campos, Eric - PhD
Ciruna, Brian - BSc, PhD
Claycomb, Julie - BA, BS, PhD
Cochrane, Alan - BSc, PhD
Collins, Rick - BSc, PhD
Costain, Greg - MD, MSD, ScD
Cowan, Leah - BSc, PhD
Culotti, Joseph - PhD
Davidson, Alan Richard - BSc, PhD
Delgado Olguin, Paul - BSc, PhD
Dennis, James - PhD
Derry, Brent - BSc, MSc, PhD
Dick, John - PhD
Dirks, Peter Benjamin - MD, PhD
Durocher, Daniel - PhD
Edwards, Aled - BSc, PhD
Egan, Sean - PhD
Ellis, James - PhD
Ensminger, Alexander - BS, PhD
Ernst, Oliver - PhD
Frappier, Lori - PhD (Graduate Coordinator)
Fraser, Andrew - BSc
Funnell, Barbara - PhD
Gallie, Brenda - MD
Gillis, Jesse - BSc, MSc, PhD
Gingras, Anne-Claude - BSc, PhD
Gray-Owen, Scott - BS, PhD
Greenblatt, Jack - BSc, PhD
Hayes, Madeline - PhD
Hopyan, Sevan - BSc, MD, PhD
Huang, Xi - PhD
Hughes, Timothy - BSE, BMus, PhD (Chair and Graduate Chair)
Hui, Chi-Chung - PhD
Hurd, Thomas Ryan - BSc, PhD
Joshi-Sukhwal, Sadhna - BSc, MSc, PhD, DSc
Kafri, Ran - BSc, MSc, PhD
Kalish, Brian - MD
Kaplan, David - BA, PhD
Kay, Lewis - PhD
Kim, Philip - BS, PhD
Krause, Henry - BSc, PhD
Lavoie, Brigitte - PhD
Li, Yun - PhD
Lipshitz, Howard - PhD
Liu, Jun - PhD
Maass, Philipp - PhD
Meneghini, Marc - BSc, PhD
Miller, Freda - BSc, PhD
Moffat, Jason - BSc, PhD
Montenegro Burke, Rafa - MSD
Moran, Michael - BSc, PhD
Muffat, Julien - PhD
Navarro, William - BSc, PhD
Okamoto, Kenichi - BS, MA, PhD
Osborne, Lucy - PhD
Park, Jeeyhe - PhD
Parkinson, John - BS, PhD
Pearson, Christopher - PhD
Pelletier, Laurence - BSc, MSc, PhD
Protze, Stephanie - PhD
Ramalho-Santos, Miguel - PhD
Reimand, Juri - MSc, PhD
Rini, James - BSc, PhD
Rommens, Johanna - BSc, PhD
Rossant, Janet - PhD
Roth, Frederick - PhD
Roy, Peter John - BSc, PhD
Rozen-Gagnon, Kathryn - BA
Scherer, Stephen - PhD
Schartek, Daniel - PhD
Scott, Ian - BSc, PhD
Segall, Jacqueline - BSc, PhD
Sicheri, Frank - BSc, PhD
Smibert, Craig - BSc, PhD
Sondheimer, Neal John - MD, PhD
Spence, Andrew - BSc, PhD
Stagljar, Igor - BS, PhD
Stein, Lincoln - BA, MD, PhD
Steipe, Boris - MD, PhD
Tyers, Michael - PhD
Van Der Kooy, Derek - BSc, MA, PhD
Wilde, Andrew Rhys - BSc, PhD
Wilson, Michael - BSc, PhD
Wrana, Jeff - PhD
Zhang, Zhaolei - BS, PhD
Zhen, Mei - PhD

Members Emeriti

Becker, Andrew - MD, PhD
Carver, Jeremy - BA, PhD
Sadowski, Paul - MD, PhD
Siminovitch, Louis - BSc, BSc, PhD

Associate Members

Babul-Hirji, Riyana - BSc, MSc
Care, Melanie - BSc, MSc
Carroll, Johanna - BA, PhD
Chitayat, David - MD
Cytynbaum, Cheryl - MSc
Druker, Harriet - MSc
Dupuis, Lucie - MSc
Graham, Tracy - MSc
Hedges, Stephanie - MSc
Hill, Jessica - BSc, MSc, PhD
Hoang, Ny - MSc
Injeyan, Marie - MSc
Kaiser, Amy - BA
Klatt, Regan - BSc, MSc

Lemmens, Trudo - LLM, DCL, Dr. William M. Scholl Chair in Health Law and Policy
Liston, Eriskay - BA, MSc
Lorentz, Justin - MSc
Malcolmson, Janet - MSc
Martin, Nicole - BSc, MS
McCuaig, Jeanna - MS
Mendoza, Roberto - MD
Miron, Ioana - MSc
Murphy, Jillian - BSc, MSc
Myles Reid, Diane - BSc, MSc
Owens, Gillian - MSc
Piccinin, Carolyn - MSc
Quercia, Nada - BS, MSc
Randall-Armel, Susan - MS
Semptiuik, Kata - BSc
Shugar, Andrea - BSc, MS
Shuman, Cheryl - MSc
Silver, Rachel - BSc, MSc
Staines, Andrea - MSc
Steele, Leslie - BSc, MSc
Steiner, Martina - PhD
Styles, Erin - BSc, PhD
Uster, Tamarah - BSc, MS
Watkins, Nicholas - MSc
Watts-Dickens, Abby - MSc
Weksberg, Rosanna - MD, PhD
Yoon, Grace - MD

Molecular Genetics: Genetic Counselling

MSc

Master of Science

Program Description

The MSc program is a full-time degree program (non-thesis) that prepares students with relevant academic knowledge and clinical skills so that upon graduating, they may work as highly competent genetic counsellors in a variety of practice settings. Genetic counsellors are employed in many areas of healthcare, providing genetic assessment and counselling to individuals and families with, or at risk for, a genetic disorder. There is also an increasing demand for genetic counsellors to join genetic/genomic testing laboratories, industry, public health settings, etc. Genetic counsellors are often involved in academic activities including teaching and research, administrative leadership roles, advisory roles for government and/or support organizations, and other precision medicine leadership capacities. This program is accredited by the Accreditation Council for Genetic Counseling.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Molecular Genetics' additional admission requirements stated below.
- A four-year undergraduate degree from a recognized university with a minimum B+ average, both cumulatively and in the upper years.
Successful completion or proof of current enrolment of undergraduate courses at a recognized university in biology, molecular biology/genetics, biochemistry, embryology/animal developmental biology, statistics, and psychology.

The development of strong interpersonal and communication skills, as evidenced by experience in a counselling setting (volunteer or paid).

All applicants must register with the National Matching System (NMS); instructions are provided in the department’s application procedures.

Program Requirements

Students must complete **13.0 full-course equivalents (FCEs)** as follows:

- 10.0 FCEs in coursework with a minimum B– standing. Lectures, meetings, and rounds must be attended at a minimum of 90% of scheduled occurrences.
- 1.0 FCE independent research project. Students are expected to develop and implement a research study designed and carried out by them under the supervision of a faculty member. The independent research project must be relevant to the field of genetic counselling and/or clinical genetics. Students must present the independent research project both orally and in a written format suitable for publication.
- 2.0 FCEs in clinical practicums.

Students spend a minimum of 21 months over a two-year period in full-time attendance.

Students are required to complete an intervening summer rotation (six weeks duration).

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Molecular Genetics: Genetic Counselling MSc Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC2010Y</td>
<td>Molecular Medicine in Human Genetic Disease</td>
</tr>
<tr>
<td>MMG1120Y</td>
<td>Clinical Rotations I</td>
</tr>
<tr>
<td>MMG1122Y</td>
<td>Issues in Genetic Counselling I</td>
</tr>
<tr>
<td>MMG1124Y</td>
<td>Principles of Effective Counselling</td>
</tr>
<tr>
<td>MMG1126Y</td>
<td>Clinical Issues in Pregnancy and Child Development</td>
</tr>
<tr>
<td>MMG1128Y</td>
<td>Risk Calculation and Research Methodology</td>
</tr>
<tr>
<td>MMG1130Y</td>
<td>Tutorial in Molecular Genetics</td>
</tr>
<tr>
<td>MMG1132H</td>
<td>Laboratory Skills</td>
</tr>
<tr>
<td>MMG1220Y</td>
<td>Clinical Rotations II</td>
</tr>
<tr>
<td>MMG1222Y</td>
<td>Issues in Genetic Counselling II</td>
</tr>
<tr>
<td>MMG1224Y</td>
<td>Advanced Principles of Effective Counselling</td>
</tr>
<tr>
<td>MMG1226Y</td>
<td>Concepts in Clinical Genetics</td>
</tr>
<tr>
<td>MMG1228Y</td>
<td>Independent Research Project</td>
</tr>
<tr>
<td>MMG1230H</td>
<td>Cancer Genetic Counselling</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Molecular Genetics: Medical Genomics MHSc

Master of Health Science

Program Description

The professional master’s program in Medical Genomics is a fast-paced, content-dense degree program delivered over five continuous sessions. This program will provide medical trainees, clinicians, research scientists, and laboratory professionals with the theory and practical knowledge necessary to incorporate the generation, analysis, and interpretation of genomics data into research and medical practice. Preferred applicants have relevant research and/or clinical experience and can demonstrate an immediate and substantive use of this degree in professional practice.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Molecular Genetics’ additional admission requirements stated below.
- An appropriate BSc degree with high academic standing from a recognized university, with a B+ average or better. Applicants would normally possess an undergraduate degree displaying competence in genetics, molecular biology, or related fields.
- An appropriate MD degree with high academic standing from a recognized university, with a B+ average or better.
- Applicants will complete an application package including:
  - all previous university transcripts
  - a transcript summary form for either the clinical or laboratory stream
  - curriculum vitae (CV)
  - statement of interest (one to two pages maximum), including how this program will have an impact on future career path
  - three letters of reference from professional, academic, or other qualified referees.
- Interview (15 minutes).
Program Requirements

Students must complete a total of **9.0 full-course equivalents (FCEs)** as follows:

- **Year 1:**
  - MMG3001Y *Advanced Human Genetics* (2.0 FCEs, Fall and Winter)
  - MMG3002Y *Biological Statistics* (1.0 FCE, Fall)
  - MMG3003Y *Genomics Methodologies* (2.0 FCEs, Winter and Summer).
- **Year 2:**
  - MMG3004Y *Communication of Genetic Information* (1.0 FCE, Fall)
  - MMG3005Y *Ethical and Legal Implications of Genomics* (1.0 FCE, Fall)
  - MMG3007Y *Clinical Practicum in Medical Genomics*, an elective for clinical-stream students and trainees in patient-facing medical fields (1.0 FCE; Credit/No Credit, Winter)
  - **or**
    - MMG3008Y *Practicum in Modern Genomics*, an elective for laboratory professional-stream students in clinical/research science careers (1.0 FCE; Credit/No Credit, Winter).
- **Four elective modular courses from the following list (1.0 FCE):**
  - MMG3201H *Medical Genomics Graduate Professional Development* (0.25 FCE, Summer)
  - MMG3202H *Next-Generation Sequencing — Data Generation Laboratory* (0.25 FCE, Summer)
  - MMG3203H *Next-Generation Sequencing — Data Analysis and Interpretation* (0.25 FCE, Summer)
  - MMG3204H *Practical Applications of Genome Interpretation* (0.25 FCE, Fall)
  - MMG3205H *Research Topics in Medical Genomics* (0.25 FCE; Fall).

**Required Elective (choose one)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMG3007Y</td>
<td>Clinical Practicum in Medical Genomics (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG3008Y</td>
<td>Practicum in Modern Genomics (Credit/No Credit)</td>
</tr>
</tbody>
</table>

**Modular Courses (choose any four, 0.25 FCE each)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MMG3201H</td>
<td>Medical Genomics Graduate Professional Development</td>
</tr>
<tr>
<td>MMG3202H</td>
<td>Next-Generation Sequencing — Data Generation Laboratory</td>
</tr>
<tr>
<td>MMG3203H</td>
<td>Next-Generation Sequencing — Data Analysis and Interpretation (prerequisite: MMG3003Y or equivalent)</td>
</tr>
<tr>
<td>MMG3204H</td>
<td>Practical Applications of Genome Interpretation (prerequisite: MMG3003Y or equivalent)</td>
</tr>
<tr>
<td>MMG3205H</td>
<td>Research Topics in Medical Genomics</td>
</tr>
</tbody>
</table>

**Program Length**

5 sessions full-time (typical registration sequence: F/W/S/F/W)

**Time Limit**

3 years

**Molecular Genetics: Medical Genomics MSc Courses**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMG3001Y</td>
<td>Advanced Human Genetics (2.0 FCEs)</td>
</tr>
<tr>
<td>MMG3002Y</td>
<td>Biological Statistics</td>
</tr>
<tr>
<td>MMG3003Y</td>
<td>Genomics Methodologies (2.0 FCEs)</td>
</tr>
<tr>
<td>MMG3004Y</td>
<td>Communication of Genetic Information</td>
</tr>
</tbody>
</table>

**Molecular Genetics: Molecular Genetics MSc**

**Master of Science**

**Program Description**

The MSc program offers research training in a broad range of genetic systems from bacteria and viruses to humans. Research projects include DNA repair, recombination and segregation, transcription, RNA splicing and catalysis, regulation of gene expression, signal transduction, interactions of host cells with bacteria and viruses, developmental genetics of simple organisms (worms and fruit flies) as well as complex organisms (mice), molecular neurobiology, molecular immunology, cancer biology and virology, structural biology, and human genetics and gene therapy.

Students may only start this program in September.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Molecular Genetics' additional admission requirements stated below.
• Normally, a BSc or MD degree or equivalent with excellent academic credentials in molecular biology, genetics, microbiology, and/or biochemistry. Applicants trained in other quantitative sciences (math, physics, chemistry, computer science, engineering, etc.) are also strongly encouraged to apply.

Program Requirements

• Coursework. Successful completion of 1.5 full-course equivalents (FCEs) as follows:
  o MMG1001H (0.5 FCE)
  o MMG1003H (0.25 FCE)
  o MMG1004H (0.25 FCE)
  o MMG1113H (0.25 FCE)
  o MMG1114H (0.25 FCE).
• Students must also attend each of the following graduate seminars two times:
  o MMG1111H (0.0 FCE; Credit/No Credit)
  o MMG1112H (0.0 FCE; Credit/No Credit).
• A thesis on a research project.
• Defence of the thesis at an oral examination.
• Residency. Students are required to spend 12 months in full-time attendance.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

Molecular Genetics: Molecular Genetics PhD

Doctor of Philosophy

Program Description

The PhD program offers research training in a broad range of genetic systems from bacteria and viruses to humans. Research projects include DNA repair, recombination and segregation, transcription, RNA splicing and catalysis, regulation of gene expression, signal transduction, interactions of host cells with bacteria and viruses, developmental genetics of simple organisms (worms and fruit flies) as well as complex organisms (mice), molecular neurobiology, molecular immunology, cancer biology and virology, structural biology, and human genetics and gene therapy.

Applicants may enter the PhD program via one of three routes: 1) following completion of an MSc degree; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion of a BSc, MD, or equivalent degree.

Students may only start this program in September.

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Molecular Genetics' additional admission requirements stated below.
• An MSc degree in Molecular Genetics, or equivalent, from the University of Toronto or another recognized university. As a condition of admission, applicants who have completed their MSc outside of the Department of Molecular Genetics may be required to complete additional course requirements.
• Normally, an MSc degree or equivalent with wet or dry lab experience related to molecular biology, genetics, microbiology, and/or biochemistry is required. Applicants trained in other quantitative sciences (math, physics, chemistry, computer science, engineering, etc.) are also strongly encouraged to apply.
• Attainment of minimum admission standards does not guarantee acceptance into the PhD program.

Program Requirements

• Coursework. Students must successfully complete a total of 1.0 full-course equivalent (FCEs) as follows:
  o MMG1115H (0.5 FCE)
  o Two modular courses (0.25 FCE each), which must be taken after successfully completing the qualifying examination prior to the Summer session of Year 4. If a program extension is granted beyond Year 4, students have until the Summer session of Year 5 to complete.
• Students must also attend each of the following graduate seminars four times:
  o MMG1111H (0.0 FCE; Credit/No Credit)
  o MMG1112H (0.0 FCE; Credit/No Credit).
• A thesis on a research project.
• Successful completion of a qualification examination in Year 2. The qualifying exam consists of the submission of a written proposal and an oral examination. If a student is unsuccessful at the first attempt at the qualifying exam, there are three possible outcomes:
  o The student may retake the oral exam within four to eight weeks without revision of the written proposal; or
  o The student may submit a revised written proposal and retake the oral exam within four to eight weeks; or
  o The student may withdraw from the program after consultation with the Graduate Coordinator. In cases where the student does not have an MSc in Molecular Genetics, the Exam Committee may recommend the student reclassify into the MSc program.
• Residency. Students who enter the doctoral program after completing a master's program must spend a minimum of two sessions in full-time attendance.

Program Length

4 years

Time Limit

6 years
PhD Program (Transfer)

Transfer Requirements

- Transfer applicants must be enrolled in the Department of Molecular Genetics MSc program.
- Students must have successfully completed the following:
  - MMG1001H (0.5 FCE)
  - MMG1003H (0.25 FCE)
  - MMG1004H (0.25 FCE)
  - MMG1113H (0.25 FCE)
  - MMG1114H (0.25 FCE).
- Students must be enrolled in MMG1111H and MMG1112H in order to qualify to transfer to the PhD program.
- Transfer applicants must successfully complete a reclassification transfer exam within the first 24 months of registration in the MSc program.

Program Requirements

- **Coursework.** Students must successfully complete a total of 1.0 full-course equivalent (FCE) as follows:
  - MMG1115H (0.5 FCE)
  - Two modular courses (0.25 FCE each), which must be taken after successfully completing the transfer examination and prior to the Summer session of Year 5.
- Students must also attend any remaining graduate seminar sessions not completed prior to transferring. Students must attend each graduate seminar four times:
  - MMG1111H (0.0 FCE; Credit/No Credit)
  - MMG1112H (0.0 FCE; Credit/No Credit).
- **A thesis** on a research project.
- Successful completion of a **transfer examination** in Year 2. The transfer exam consists of the submission of a written proposal and an oral examination. If a student is unsuccessful at the first attempt at the transfer exam, there are four possible outcomes:
  - The student may retake the oral exam within four to eight weeks without revision of the written proposal; or
  - The student may submit a revised written proposal and retake the oral exam within four to eight weeks; or
  - The student is asked to complete and defend an MSc thesis; or
  - The student may withdraw from the program after consultation with the Graduate Coordinator.
- **Residency.** Students who enter the doctoral program after completing a master's program must spend a minimum of two sessions in full-time attendance.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Molecular Genetics' additional admission requirements stated below.
- Students with a BSc degree, an MD degree, or equivalent may be accepted directly into the PhD program.
- Normally, a BSc degree or equivalent with academic credentials and wet or dry lab experience related to molecular biology, genetics, microbiology, and/or biochemistry is required. Applicants trained in other quantitative sciences (math, physics, chemistry, computer science, engineering, etc.) are also strongly encouraged to apply.
- Attainment of minimum admission standards does not guarantee acceptance into the PhD program.

Program Requirements

- **Coursework.** Students must successfully complete a total of 2.5 full-course equivalents (FCEs) as follows:
  - MMG1001H (0.5 FCE)
  - MMG1003H (0.25 FCE)
  - MMG1004H (0.25 FCE)
  - MMG1113H (0.25 FCE)
  - MMG1114H (0.25 FCE)
  - MMG1115H (0.5 FCE)
  - Two modular courses (0.25 FCE each), which must be taken after successfully completing the qualifying examination and prior to the Summer session of Year 5.
- Students must also attend each of the following graduate seminars four times:
  - MMG1111H (0.0 FCE; Credit/No Credit)
  - MMG1112H (0.0 FCE; Credit/No Credit)
- **A thesis** on a research project.
- Successful completion of a **qualification examination** in Year 2. The qualifying exam consists of the submission of a written proposal and an oral examination. If a student is unsuccessful at the first attempt at the qualifying exam, there are four possible outcomes:
  - The student may retake the oral exam within four to eight weeks without revision of the written proposal; or
  - The student may submit a revised written proposal and retake the oral exam within four to eight weeks; or
  - The student may choose to reclassify in the MSc program; or
  - The student may withdraw from the program after consultation with the Graduate Coordinator.
- **Residency.** Students who enter the doctoral program after completing a master's program must spend a minimum of two sessions in full-time attendance.

Program Length

5 years

Time Limit

7 years
## Molecular Genetics: Molecular Genetics
### MSc, PhD Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>JBB1425H (0.5 FCE)</td>
<td>Structural Biology: Principles and Practice</td>
</tr>
<tr>
<td>JBB2025H (0.5 FCE)</td>
<td>Protein Crystallography</td>
</tr>
<tr>
<td>JDB1024Y (1.0 FCE)</td>
<td>Topics in Developmental Biology</td>
</tr>
<tr>
<td>JDB1025H (0.5 FCE)</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>JDB1026Y (1.0 FCE)</td>
<td>Student Seminars in Developmental Biology</td>
</tr>
<tr>
<td>MMG1001H (0.5 FCE)</td>
<td>Foundational Genetic Approaches I</td>
</tr>
<tr>
<td>MMG1003H (0.25 FCE)</td>
<td>First Year Colloquium</td>
</tr>
<tr>
<td>MMG1004H (0.25 FCE)</td>
<td>A Practical Course in Programming for Biologists</td>
</tr>
<tr>
<td>MMG1111H (0.0 FCE)</td>
<td>Graduate Seminars I (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1112H (0.0 FCE)</td>
<td>Graduate Seminars II (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1113H (0.25 FCE)</td>
<td>MSc Presentation Skills</td>
</tr>
<tr>
<td>MMG1114H (0.25 FCE)</td>
<td>MSc Presentation</td>
</tr>
<tr>
<td>MMG1115H (0.5 FCE)</td>
<td>PhD Presentation</td>
</tr>
<tr>
<td>MMG1301H (0.25 FCE)</td>
<td>Developmental Neurobiology</td>
</tr>
<tr>
<td>MMG1302H (0.25 FCE)</td>
<td>Advanced Imaging: Techniques and Application in Biological Systems (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1303H (0.25 FCE)</td>
<td>Cell Cycle and Growth Control (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1304H (0.25 FCE)</td>
<td>Bacterial Pathogens</td>
</tr>
<tr>
<td>MMG1305H (0.25 FCE)</td>
<td>Comparative and Population Genomics (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1306H (0.25 FCE)</td>
<td>Epigenetics and Transcriptional Control (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1307H (0.25 FCE)</td>
<td>Fungal Drug Resistance, Development, and Disease (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1308H (0.25 FCE)</td>
<td>Human Genome Analysis (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1309H (0.25 FCE)</td>
<td>Virus Host Interactions</td>
</tr>
<tr>
<td>MMG1315H (0.25 FCE)</td>
<td>Gene and Protein Evolution</td>
</tr>
<tr>
<td>MMG1316H (0.25 FCE)</td>
<td>Cancer Genetics (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1317H (0.25 FCE)</td>
<td>Special Topics in Advanced Cancer Proteomics (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1318H (0.25 FCE)</td>
<td>Cytoskeletal Dynamics (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1319H (0.25 FCE)</td>
<td>Genomics of Infectious Diseases</td>
</tr>
<tr>
<td>MMG1320H (0.25 FCE)</td>
<td>Genome Duplication, Repair, and Transmission (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1321H (0.25 FCE)</td>
<td>Eukaryotic Signaling (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1322H (0.25 FCE)</td>
<td>Protozoan Pathogens (Credit/No Credit)</td>
</tr>
<tr>
<td>MMG1323H (0.25 FCE)</td>
<td>Signalling Networks in Development, Regeneration, and Disease (Credit/No Credit)</td>
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<tr>
<td>MMG1324H (0.25 FCE)</td>
<td>Mitochondrial Genetics in Health and Disease</td>
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<tr>
<td>MMG1325H (0.25 FCE)</td>
<td>Molecular Mechanisms of Mood and Mind (M4)</td>
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<tr>
<td>MMG1326H (0.25 FCE)</td>
<td>Post-Transcriptional Regulatory Mechanisms</td>
</tr>
<tr>
<td>MMG1327H (0.25 FCE)</td>
<td>Microbiomes in Health and Disease</td>
</tr>
<tr>
<td>MMG1331H (0.25 FCE)</td>
<td>Stem Cells II</td>
</tr>
<tr>
<td>MMG1333H (0.25 FCE)</td>
<td>Virus Replication</td>
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<tr>
<td>MMG1344H (0.25 FCE)</td>
<td>Foundational Computational Biology I (exclusion: MMG1004H)</td>
</tr>
<tr>
<td>MMG1345H (0.25 FCE)</td>
<td>Foundational Computational Biology II (exclusion: MMG1004H)</td>
</tr>
<tr>
<td>MMG1425H (0.5 FCE)</td>
<td>Signal Transduction and Cell Cycle Regulation</td>
</tr>
</tbody>
</table>
Music

Music: Introduction

Faculty Affiliation

Music

Degree Programs

Music

MA and PhD

- Fields:
  - Ethnomusicology;
  - Music and Health Sciences;
  - Music Education;
  - Musicology;
  - Music Theory

Music Performance

MMus

- Fields:
  - Applied Music and Health;
  - Collaborative Piano;
  - Composition;
  - Conducting;
  - Historical Performance;
  - Instrumental;
  - Jazz;
  - Music Technology and Digital Media;
  - Opera;
  - Piano Pedagogy;
  - Vocal;
  - Vocal Pedagogy

DMA

- Fields:
  - Composition;
  - Performance

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Aging, Palliative and Supportive Care Across the Life Course
  - Music, MA, PhD
- Book History and Print Culture
  - Music, MA, PhD
- Environmental Studies
  - Music, MA, PhD
- Environment and Health
  - Music, MA, MMus, PhD
- Jewish Studies
  - Music, MA, PhD
  - Music Performance, DMA

- Neuroscience
  - Music, MA, PhD
- Sexual Diversity Studies
  - Music, MA, PhD
- South Asian Studies
  - Music, MA, PhD

Overview

A taught graduate degree program at the Faculty of Music was inaugurated in 1954. The Faculty of Music currently offers graduate degrees in 17 areas of concentration and fosters the institutional alliance of all areas of advanced music study. Graduate degrees are offered at both master's and doctoral levels in areas such as composition, ethnomusicology, music education, musicology, and performance. Graduates from all areas of the program occupy leading positions in music departments across Canada and around the world.

Contact and Address

Web: music.utoronto.ca
Email: grad.music@utoronto.ca
Telephone: (416) 978-5772
Fax: (416) 946-3353

Graduate Department of Music
University of Toronto
Edward Johnson Building
80 Queen's Park Crescent
Toronto, Ontario M5S 2C5
Canada

Music: Graduate Faculty

Full Members

Albano, Michael - BA
Bartel, Lee - BA, BMus, MEd, PhD
Bowen, William - BA, BMus, MA, PhD
Britton, Eliot - PhD
Clark, Caryl - BMus, MA, PhD
Copeland, Lyndsey Hoh - PhD
Crow, Jonathan - BMus
Degli Esposti Elisi, Enrico Elisi - DMA
Dolloff, Lori Anne - MusB, PhD
Edwards, Darryl - BEd, BMus, MMus, DMA
Elliott, Robin - BMus, MA, PhD (Acting Associate Dean, Academic and Student Affairs)
Gutsche-Miller, Sarah - PhD
Haines, John - BSc, BA, MA, PhD
Halladay, Wallace - BM
Hatzis, Christos - MusM, PhD
Hemmasi, Farzaneh - PhD
Hillman, Jamie - DMA
Hisama, Ellie - PhD (Dean)
Horst, Sandra - BMus, MM
Huang, Aiyun - DMA
Koga, Midori - BMus, AA, MMus, DMA
Komisaruk, Kevin - BMus, MMus, MusDoc
Kulesha, Gary - AA, ARCT, ARCT
Lee, Sherry - BMus, MMus, PhD
Lockhart, Ellen - PhD
Macdonald, Lorna - BME, MMus
MacKay, Gillian - BMus, MMus, DMA
Music: Music MA; Field: Ethnomusicology

Master of Arts (Field: Ethnomusicology)

Minimum Admission Requirements

- Applicants to the MA in Music, Ethnomusicology field are accepted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- An appropriate Bachelor of Arts specialist degree or Bachelor of Music degree from a recognized university, with an average standing equivalent to a University of Toronto mid-B or better over the final two years.
- Applicants whose undergraduate degrees do not meet this standard may be required to take up to a full year of prerequisite courses.
- Applicants must submit an essay representative of their work in music history or ethnomusicology.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- **Coursework.** Students must complete 6.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: MUS1000H Introduction to Music Research I in Year 1
  - 0.5 FCE: MUS1002H Fieldwork Methods and Practicum, offered in alternate years
  - 3.5 of the 6.0 FCEs must be in the discipline; this includes MUS1000H
  - Up to 1.0 FCE may be taken outside of Musicology, Ethnomusicology, or Music Theory (either in the Graduate Department of Music or another graduate unit) with approval of the course and program advising committee.
  - The primary means of evaluating quality are research essays and seminar presentations. MUS1990H MA Major Paper or Project is optional.

- A course and program advising (CPA) committee will review course selections. The CPA committee will ensure course selections meet the program requirements and are appropriate to the field.
- Students must maintain a minimum average of A– in Year 1 of the program in order to progress to Year 2.
- **One language** other than English is required: this should be relevant to a student's musical and scholarly interests. The chosen language must be approved by the department. Students are strongly encouraged to complete the language requirement in Year 1.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time
Music: Music MA; Field: Music and Health Sciences

Master of Arts (Field: Music and Health Sciences)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music’s additional admission requirements stated below.
- A Bachelor of Music or Bachelor of Music Therapy degree with an average standing of mid-B or better over the final two years, or an equivalent program and standing from another recognized university. Applicants who have taken courses in music therapy, psychology, kinesiology, and/or rehabilitation science are preferred. Applicants whose undergraduate degree does not meet this standard may be required to take appropriate prerequisite courses.
- Selected applicants will be scheduled for an interview. Depending on circumstances, an assigned essay may be substituted for the interview with faculty approval.
- Two letters of reference commenting on the applicant's professional experience and academic ability.

Program Requirements

- **Coursework.** Students must complete 4.0 full-course equivalents [FCEs] as follows:
  - Required courses (3.0 FCEs)
    - One of the following quantitative methods research courses (0.5 FCE), approved by the advisor:
      - CHL5201H Biostatistics I
      - JOI1287H Introduction to Applied Statistics
      - NUR1075H Introductory Statistics for Health Sciences Research
      - REH1120H Research Methods for Rehabilitation
    - MUS7110H Neurosciences of Music: Scientific Foundations, Clinical Translations (0.5 FCE)
    - MUS7412H Elementary Improvisation Methods (0.5 FCE)
  - Three of the following courses (1.5 FCEs) or other course(s) as approved by the department:
    - MUS4248H Optimizing the Singing Mind
    - MUS4613H Performance Techniques for Hospice Palliative Care
    - MUS7400H Introduction to Music and Health Care
    - MUS7406H Music Psychology
    - MUS7407H Clinical Research Practicum
    - MUS7415H Topics in Music and Health I
    - MUS7416H Topics in Music and Health II
  - Elective courses (1.0 FCE) from health-related music courses or from health-related departments as approved by the advisor. Students may choose to enrol in a recommended collaborative specialization during their study, such as the Collaborative Specialization in Neuroscience. The course(s) taken as part of the collaborative specialization may count towards this elective requirement.
- All students are assigned a faculty advisor.
- Students must pass, by the end of Year 1, a comprehensive examination (oral) in music and health, based on four selected essays representing a cohesive research direction. Two attempts to complete the exam are permitted. If the second attempt is unsuccessful, the department will recommend termination of the student's program.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Course that may continue over a program. The course is graded when completed.

Music: Music MA; Field: Music Education

Master of Arts (Field: Music Education)

Students may complete the degree program full-time or part-time.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Bachelor of Music degree in Music Education from the University of Toronto with an average standing of mid-B or better over the final two years, or an equivalent program and standing from another recognized university. Applicants whose undergraduate degree does not meet this standard may be required to take appropriate prerequisite courses.
- Applicants will normally have two years of teaching experience, although this requirement may be waived at the discretion of the department.
- An interview with the Music Education faculty must be scheduled whenever possible. With faculty approval, an assigned essay may be substituted for the interview.
- Two letters of reference commenting on the applicant's teaching experience, music performance ability, and academic ability.

Program Requirements

- **Coursework.** Students must complete 4.0 full-course equivalents (FCEs) as follows:
  - A minimum of 2.5 FCEs in Music Education, including MUS2111H Introduction to Research in Music Education and MUS2151H Philosophy and Music Education.
  - Elective courses may be chosen from the MA/PhD/MMus/DMA courses of instruction and/or other graduate courses available in the University, subject to the approval of the department.
  - A major essay (MUS2990Y) may be substituted for 1.0 FCE with the approval of the department.
- Pass a comprehensive examination in music education (written and oral). Students must successfully complete the comprehensive exam by the end of Year 1. Students are permitted two attempts to complete the exam.
If students are unsuccessful in their second attempt at the comprehensive exam, the department will make a recommendation for program termination.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

0 Course that may continue over a program. The course is graded when completed.

Music: Music MA; Field: Musicology

Master of Arts (Field: Musicology)

Minimum Admission Requirements

- Applicants to the MA in Music, Musicology field are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- An appropriate Bachelor of Arts specialist degree or Bachelor of Music degree from a recognized university, with an average standing equivalent to a University of Toronto mid-B or better over the final two years. Applicants whose undergraduate degrees do not meet this standard may be required to take up to a full year of prerequisite courses.
- Applicants must submit an essay representative of their work in music history.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- **Coursework.** Students must complete 6.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: MUS1000H Introduction to Music Research I in Year 1.
  - 3.0 of the 6.0 FCEs must be in the discipline; this includes MUS1000H.
  - Up to 1.0 FCE may be taken outside of Musicology, Ethnomusicology, or Music Theory (either in the Graduate Department of Music or another graduate unit) with approval of the course and program advising (CPA) committee.
  - The primary means of evaluating quality are research essays and seminar presentations. MUS1990H MA Major Paper or Project is optional.
  - A CPA committee will review course selections. The CPA committee will ensure course selections meet the program requirements and are appropriate to the field.
- **One language** other than English is required. The default language at the MA level is German. Students may petition to substitute another language if it is more relevant to their research. Petitions must be submitted to the Division Head (Musicology or Music Theory) by the end of the first session of Year 1. Information on petitioning is available at the Faculty of Music Graduate Studies Office. Students can fulfill the language requirement in one of the following three ways:
  - Complete GER300H at U of T or its equivalent from another university with a minimum grade of B+; or
  - Complete GER6000H; or
  - Pass a proficiency exam set by the Division.
- Students must maintain a **minimum average of A–** in Year 1 in order to progress to Year 2.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Music: Music MA; Field: Music Theory

Master of Arts (Field: Music Theory)

Minimum Admission Requirements

- Applicants to the MA in Music, Music Theory field are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- An appropriate Bachelor of Arts specialist degree or Bachelor of Music degree from a recognized university, with an average standing equivalent to a University of Toronto mid-B or better over the final two years.
- Applicants must submit an essay that represents their work in music theory.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- **Coursework.** Students must complete 6.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: MUS1000H Introduction to Music Research in Year 1.
  - A minimum of 3.0 FCEs in graduate courses in music theory; at least two of these (2.0 FCEs) must be graduate-only seminars.
  - Up to 1.0 FCE may be taken outside of musicology, ethnomusicology, and music theory (either in the Graduate Department of Music or another graduate unit) with approval of the department.
  - MUS1990H MA Major Paper or Project (0.5 FCE) is optional.
  - A course and program advising (CPA) committee will review course selections. The CPA committee will ensure course selections meet the requirements of the program and are appropriate to the field.
- **One language** other than English is required. The default language at the MA level is German. Students may petition to substitute another language if it is more relevant to their research.
Petitions must be submitted to the Division Head (Musicology or Music Theory) by the end of the first session of Year 1. Information on petitioning is available at the Faculty of Music Graduate Studies Office.

Students can fulfill the language requirement in one of the following three ways:

- Complete GER300H at U of T or its equivalent from another university with a minimum grade of B+;
- Complete GER6000H;
- Pass a proficiency exam set by the Division.

Students must maintain a minimum average of A– in Year 1 in order to progress to Year 2.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Music: Music PhD; Field: Ethnomusicology

Doctor of Philosophy (Field: Ethnomusicology)

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master's degree or 2) direct entry following completion an appropriate bachelor's degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- The PhD in Music, Ethnomusicology field is a research degree. Applicants must hold a master's degree with specialization in ethnomusicology, musicology, or music theory, but may also be in a cognate field such as anthropology or cultural studies. Applicants must have an average standing of B+ or better.
- An essay of approximately 3,000 words which demonstrates their ability to handle a research problem.
- Applicants, whether from the University of Toronto or elsewhere, may be interviewed by the department.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- **Coursework.** Students holding a master's degree specializing in musicology, ethnomusicology, or theory must fulfill the following requirements by the end of Year 2:
  - **3.0 full-course equivalents (FCEs) as follows:**
    - 0.5 FCE: MUS1250H *PhD Seminar*, taken in the first session
    - 0.5 FCE: MUS1997H^0 *Research in Ethnomusicology*
  - 1.0 FCE in graduate-only seminars in ethnomusicology
  - 1.0 FCE in electives, of which 0.5 FCE may be taken outside of musicology, ethnomusicology, and music theory (either in the Graduate Department of Music or another graduate unit). With approval from the course and program advising (CPA) committee, one 0.5 FCE course may be deferred to the first session of Year 2.
  - Coursework should be completed during Year 1 with an average grade of at least A–. The exception is MUS1997H^0 *Research in Ethnomusicology*, which lays the groundwork for the field examination and the dissertation: this course must be started at the beginning of the second session of Year 1 and completed by the end of the first session of Year 2.
- The CPA committee will review course selections to ensure that they meet the requirements of the program and are appropriate to the field. The department may prescribe additional courses if it is felt they are necessary to develop the knowledge and skills required for a student's proposed subject of study.
- Advanced oral and reading knowledge of a language other than English is required: this should be relevant to a student's musical and scholarly interests. The department may also require competence in additional languages deemed necessary for a proposed area of research. Language requirements must be completed successfully by the end of Year 2.
- **Supervisor.** During Year 1, students are expected to discuss their interests, expectations, and research objectives with faculty members. An appropriate supervisor of MUS1997H^0 must then be agreed upon. The supervisor will be primarily responsible for determining the structure and content of MUS1997H^0, which will include a research paper.
- A set of three comprehensive exams in (1) contemporary issues, (2) history of the field, and (3) repertoire, to be taken at the beginning of Year 2.
  - Students are permitted two attempts to complete each exam. A second attempt must take place at the beginning of the second session. If students are unsuccessful in their second attempt at the comprehensive exam, the department will make a recommendation for program termination.
- Students must prepare a thesis and will defend it at a Doctoral Final Oral Examination.
- The residency requirement is two years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 years

Time Limit

6 years

^0 Course that may continue over a program. The course is graded when completed.
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- The PhD in Music, Ethnomusicology field is a research degree. Exceptional students may be admitted directly to the doctoral stream with an appropriate bachelor's degree (direct entry). Applicants must have an average standing of A– or better.
- An essay of approximately 3,000 words which demonstrates their ability to handle a research problem.
- Applicants, whether from the University of Toronto or elsewhere, may be interviewed by the department.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- Coursework. Students must complete 6.0 full-course equivalents (FCEs) as follows:
  - Year 1: complete 3.0 FCEs, exclusive of MUS1250H and MUS1997H0. Students must maintain an average grade of at least A– in order to continue with the doctorate; otherwise, the student will be required to transfer into the master's program. Successful direct entry students go on to Year 2.
  - Years 2 and 3: 3.0 FCEs as follows:
    - 0.5 FCE: MUS1250H PhD Seminar, taken in the first session of Year 2.
    - 0.5 FCE: MUS1997H0 Research in Ethnomusicology lays the groundwork for the field examination and the dissertation. This course must be started at the beginning of the second session of Year 2 and completed by the end of the first session of Year 3.
    - 1.0 FCE in graduate-only seminars in ethnomusicology.
    - 1.0 FCE in electives, of which 0.5 FCE may be taken outside of musicology, ethnomusicology, and music theory (either in the Graduate Department of Music or another graduate unit). With approval from the course and program advising (CPA) committee, one 0.5 FCE course may be deferred to the first session of Year 2.
    - All course requirements must be completed by the end of Year 3.
  - The CPA committee will review course selections to ensure that they meet the requirements of the program and are appropriate to the field. The department may prescribe additional courses if it is felt they are necessary to develop the knowledge and skills required for a student's proposed subject of study.
- Students must complete an intermediate-level language examination in Year 1. Advanced oral and reading knowledge of a language other than English is required: this should be relevant to the student's musical and scholarly interests. The department may also require competence in additional languages deemed necessary for a proposed area of research. Language requirements must be completed successfully by the end of Year 3.
- Supervisor. During Year 1, students are expected to discuss their interests, expectations, and research objectives with faculty members. An appropriate supervisor of MUS1997H0 must then be agreed upon. The supervisor will be primarily responsible for determining the structure and content of MUS1997H0, which will include a research paper.
- A set of three comprehensive exams in (1) contemporary issues, (2) history of the field, and (3) repertoire, to be taken at the beginning of Year 3.
  - Students are permitted two attempts to complete each exam. A second attempt must take place at the beginning of the second session. If students are unsuccessful in their second attempt at the comprehensive exam, the department will make a recommendation for program termination.
- Students must prepare a thesis and will defend it at a Doctoral Final Oral Examination.
- The residency requirement is three years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

5 years

Time Limit

7 years

Music: Music PhD; Field: Music and Health Sciences

Doctor of Philosophy (Field: Music and Health Sciences)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Applicants must hold a four-year bachelor's degree, either in music (or with a musical credential [e.g., ARCT]) or music therapy, plus a field-related master's degree (e.g., master of music, master of music therapy, master’s degree in a health field such as kinesiology, neuroscience, or speech-language pathology). Applicants must have a standing of B+ or better, from the University of Toronto, or an equivalent degree and standing from another recognized university.
- An interview with Music and Health faculty members whenever possible. With faculty approval, an assigned essay may be substituted for the interview.
- Two letters of reference commenting on the applicant's professional experience and academic ability.

Program Requirements

- Coursework. Students must complete 6.0 full-course equivalents (FCEs) as follows:
Program Length

4 years full-time
• Students must successfully complete a comprehensive exam by the end of Year 2. Students are permitted two attempts to complete the exam. If students are unsuccessful in their second attempt at the comprehensive exam, the department will make a recommendation for program termination.

• Thesis. Upon successful completion of the comprehensive examination, the candidate proceeds to complete an oral defence of the thesis proposal, a thesis, and an oral defence of the thesis.

• The residency requirement is two years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 years full-time

Time Limit

6 years full-time

Course that may continue over a program. The course is graded when completed.

PhD Program (Flexible-Time)

Minimum Admission Requirements

• The flexible-time option is offered to practising professionals whose employment or other professional work is related to their research or study interests.

• Applicants to the flexible-time PhD program option must apply specifically to this program to be considered.

• The admission, course, and degree requirements for the flexible-time option are identical to those listed for the full-time PhD program.

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.

• Applicants must hold a master's degree specializing in Music Education from the University of Toronto with an average standing of B+ or better, or an equivalent degree and standing from another recognized university.

• An interview with the Music Education faculty must be scheduled whenever possible.

• An assigned essay may be substituted for the interview with faculty approval.

• At the discretion of the faculty, applicants may be required to provide a videotape of their teaching expertise.

• Two letters of reference commenting on the applicant's teaching experience, music performance ability, and academic ability.

• Students who are considering the flexible-time PhD should ensure that they have adequate time on campus to attend classes and to fulfill the academic requirements of a PhD program.

Program Requirements

• Coursework. Students must complete 6.0 full-course equivalents (FCEs) including:
  - At least 2.0 FCEs (including MUS2995Y0 Music Education Doctoral Research Project) must be taken from the departmental offerings in music education.
  - The balance of the student's required program must be approved by the department and may include courses from the MA/MMus/PhD/DMA list and/or from another graduate unit.
  - At the department's discretion, the student may receive credit for up to 3.0 FCEs from an acceptable master's degree program.

• Language requirements, if any, will be established by the student's advisory committee, based on specific research needs.

• Supervision. As early as possible in Year 2, the student will submit a thesis proposal which must be approved by the end of that year. On approval of the proposal by the Music Education division of the department, a principal advisor and an advisory committee of at least three members (including the advisor as chair) will be appointed. The committee will meet with the student at least two times each academic year.

• Students must successfully complete a comprehensive exam by the end of Year 2. Students are permitted two attempts to complete the exam. If students are unsuccessful in their second attempt at the comprehensive exam, the department will make a recommendation for program termination.

• Thesis. Upon successful completion of the comprehensive examination, the candidate proceeds to complete an oral defence of the thesis proposal, a thesis, and an oral defence of the thesis.

• As governed by University of Toronto regulations, flexible-time students must be registered full-time and pay full-time fees for four years, and may apply to be registered part-time thereafter. The program requirements will be the same as those required for the full-time PhD. The difference is that students enrolled in the flexible-time PhD will have the flexibility of a part-time course load and will have an overall time limit to completion of eight years.
Music: Music PhD; Field: Musicology

Doctor of Philosophy (Field: Musicology)

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master's degree or 2) direct entry following completion an appropriate bachelor’s degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- The PhD in Music, Musicology field is a research degree. Applicants must hold a master's degree with specialization in musicology, ethnomusicology, or theory, and must have an average standing of B+ or better.
- Applicants must submit an essay of approximately 3,000 words which demonstrates their ability to handle a research problem.
- Applicants, whether from the University of Toronto or elsewhere, may be interviewed by the department.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- **Coursework.** Students holding a master's degree specializing in musicology, ethnomusicology, or theory must fulfill the following requirements:
  - A minimum of 3.0 full-course equivalents (FCEs) as follows:
    - 0.5 FCE: MUS1250H PhD Seminar is taken in the first session
    - 0.5 FCE: MUS1999H Research in Musicology
    - 1.0 FCE in graduate-only seminars in musicology
    - 1.0 FCE in electives, of which 0.5 FCE may be taken outside of Musicology, Ethnomusicology, and Music Theory (either in the Graduate Department of Music or another graduate unit). With approval from the CPA committee, one 0.5 FCE course may be deferred to the first session of Year 2.
  - Coursework should be completed during Year 1 with an average grade of at least A–. The exception is MUS1999H, which lays the groundwork for the field examination and the dissertation: this course must be started at the beginning of the second session of Year 1 and completed by the end of the first session of Year 2.
  - A course and program advising (CPA) committee will review course selections. The CPA committee will ensure course selections meet the requirements of the program and are appropriate to the field. Students may be required to take additional courses or acquire other skills to meet the needs of their proposed subjects of study.
- A set of three (written) comprehensive exams in (1) contemporary issues, (2) history of the field, and (3) repertoire, to be taken at the beginning of Year 2.
- Students are permitted two attempts to complete each exam. A second attempt must take place at the beginning of the second session. If students are unsuccessful in their second attempt at the comprehensive exam, the department will make a recommendation for program termination.
- **Two research languages** in addition to English are required: one secondary and one primary. The goal is to have all language requirements fulfilled by the end of Year 2.
  - **The secondary language requirement** is the same as the MA language requirement. The default language for the secondary language requirement is German. Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 1. Students can fulfill the secondary language requirement in one of the following three ways:
    - Complete GER300H at U of T or its equivalent from another university, with a minimum grade of B+; or
    - Complete GER6000H; or
    - Pass a proficiency exam set by the Division.
  - **The primary language requirement** involves advanced reading proficiency in the chosen language. Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 1. Information on petitioning is available at the Faculty of Music Graduate Studies Office. Students can fulfill the secondary language requirement in one of the following three ways:
    - Complete a 400-level language course at U of T or its equivalent from another university, with a minimum grade of B+; or
    - Pass a proficiency exam set by the Division; or
    - Pass an exam in another graduate unit by arrangement through the Graduate Department of Music.
- Students are allowed two attempts at the in-house exam, after which they must take a language course at the appropriate MA or PhD level. All language requirements must be completed by the end of Year 3. Exceptions are granted only in extenuating circumstances and by petition.
- Students must prepare a thesis under the direction of an advisor and a committee and will defend it at a Doctoral Final Oral Examination. The thesis, including bibliography and appendices, should ideally be between 75,000 and 80,000 words in length. The department will not consider a thesis that exceeds 100,000 words.
- **The residency** requirement is two years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 years

Time Limit

6 years
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- The PhD in Music, Musicology field is a research degree. Exceptional students may be admitted directly to the doctoral stream with an appropriate bachelor's degree (direct entry). Applicants must have an average standing of A– or better.
- Applicants must submit an essay of approximately 3,000 words which demonstrates their ability to handle a research problem.
- Applicants, whether from the University of Toronto or elsewhere, may be interviewed by the department.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- **Coursework.** Students must complete 6.0 full-course equivalents (FCEs) as follows:
  - 3.0 FCEs at the graduate level in Year 1 with a minimum average of A–. The exception is MUS1999H, which lays the groundwork for the field examination and the dissertation: this course must be started at the beginning of the second session of Year 1 and completed by the end of the first session of Year 2.
  - An intermediate-level language exam in Year 1. All language requirements must be completed by Year 3.
  - Following successful completion of Year 1, students must then complete all program requirements of the four-year PhD program.
  - 0.5 FCE: MUS1250H PhD Seminar, taken in the first session of Year 2.
  - 0.5 FCE: MUS1999H* Research in Musicology.
  - 1.0 FCE in graduate-only seminars in musicology.
  - 1.0 FCE in electives, of which 0.5 FCE may be taken outside of Musicology, Ethnomusicology, and Music Theory (either in the Graduate Department of Music or another graduate unit). With approval from the course and program advising (CPA) committee, one 0.5 FCE course may be deferred to the first session of Year 2.
  - The CPA committee will review course selections, ensuring that course selections meet the requirements of the program and are appropriate to the field. Students may be required to take additional courses or acquire other skills to meet the needs of their proposed subjects of study.
- A set of three (written) comprehensive exams in (1) contemporary issues, (2) history of the field, and (3) repertoire, to be taken at the beginning of Year 3.
- Students are permitted two attempts to complete each exam. A second attempt must take place at the beginning of the second session. If students are unsuccessful in their second attempt at the comprehensive exam, the department will make a recommendation for program termination.
- **Two research languages** in addition to English are required: one secondary and one primary. The goal is to have all language requirements fulfilled by the end of Year 2.
  - The default language for the secondary language requirement is German. Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 1. Students can fulfil the secondary language requirement in one of the following three ways:
    - Complete GER300H at U of T or its equivalent from another university, with a minimum grade of B+; or
    - Complete GER6000H; or
    - Pass a proficiency exam set by the Division.
  - **The primary language requirement** involves advanced reading proficiency in the chosen language. Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 1. Information on petitioning is available at the Faculty of Music Graduate Studies Office. Students can fulfil the secondary language requirement in one of the following three ways:
    - Complete a 400-level language course at U of T or its equivalent from another university, with a minimum grade of B+; or
    - Pass a proficiency exam set by the Division; or
    - Pass an exam in another graduate unit by arrangement through the Graduate Department of Music.
- Students are allowed two attempts at the **in-house exam**, after which they must take a language course at the appropriate MA or PhD level. All language requirements must be completed by the end of Year 3. Exceptions are granted only in extenuating circumstances and by petition.
- Students must prepare a **thesis** under the direction of an advisor and a committee and will defend it at a Doctoral Final Oral Examination. The thesis, including bibliography and appendices, should ideally be between 75,000 and 80,000 words in length. The department will not consider a thesis that exceeds 100,000 words.
- The **residency** requirement is three years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

5 years

Time Limit

7 years

*Course that may continue over a program. The course is graded when completed.

Music: Music PhD; Field: Music Theory

Doctor of Philosophy (Field: Music Theory)

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master's degree or 2) direct entry following completion a bachelor’s degree.
PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- The PhD in Music, Music Theory field is a research degree. Applicants must hold a master's degree with appropriate specialization (normally music theory or musicology), and must have an average standing of B+ or better.
- Applicants must submit an essay of approximately 3,000 words pertaining to music theory and which demonstrates their ability to handle a research problem.
- Applicants, whether from the University of Toronto or elsewhere, may be interviewed by the department.
- Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

- **Coursework.** Students must complete a minimum of 3.0 full-course equivalents (FCEs) including:
  - 0.5 FCE: MUS1250H *PhD Seminar* (taken in the first session).
  - 0.5 FCE: MUS3997H0 *Research in Music Theory*.
  - 1.0 FCE in graduate-only seminars in music theory.
  - 1.0 FCE in electives, of which 0.5 FCE may be taken outside of musicology, ethnomusicology, and music theory (either in the Graduate Department of Music or another graduate unit). With approval from the CPA committee, one 0.5 FCE course may be deferred to the first session of Year 2.
  - Coursework should be completed during Year 1 with an average grade of at least A–. The exception is MUS3997H0 *Research in Music Theory*, which lays the groundwork for the field examination and dissertation: this course must be started at the beginning of the second session of Year 1 and completed by the end of the first session of Year 2.
  - Students may be required to take additional courses or acquire other skills to meet the needs of their proposed subjects of study.
  - A course and program advising (CPA) committee will review course selections. The CPA committee will ensure course selections meet the requirements of the program and are appropriate to the field.
- A set of three (written) comprehensive exams in (1) history of the field; (2) current issues in the field; and (3) repertoire and analysis, to be taken at the beginning of Year 2.
  - Students are permitted two attempts to complete each exam. A second attempt must take place at the beginning of the second session. If the second attempt is unsuccessful, the department will recommend termination of the student's program.
- **Two research languages** in addition to English are required: one secondary and one primary. The goal is to have all language requirements fulfilled by the end of Year 2.
  - The secondary language requirement is the same as the MA language requirement. The default language for the secondary language requirement is German.

Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 2. Students can fulfil the secondary language requirement in one of the following three ways:
- Complete GER300H at U of T or its equivalent from another university, with a minimum grade of B+; or
- Complete GER6000H; or
- Pass a proficiency exam set by the Division.
  - Students who have fulfilled the MA language requirement at U of T may count this as the secondary language or use it as a stepping stone towards the primary language. Students are expected to complete the secondary language requirement by the end of Year 1.
  - The primary language requirement involves advanced reading proficiency in the chosen language. Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 1. Information on petitioning is available at the Faculty of Music Graduate Studies Office. Students can fulfill the primary language requirement in one of the following three ways:
    - Complete a 400-level language course at U of T or its equivalent from another university, with a minimum grade of B+; or
    - Pass a proficiency exam set by the Division; or
    - Pass an exam in another graduate unit by arrangement through the Graduate Department of Music.

- Students are allowed two attempts at the in-house exam, after which they must take a language course at the appropriate MA or PhD level. All language requirements must be completed by the end of Year 3. Exceptions are granted only in extenuating circumstances and by petition.
- Students must prepare a thesis under the direction of an advisor and a committee and will defend it at a Doctoral Final Oral Examination. The thesis, including bibliography and appendices, should ideally be between 75,000 and 80,000 words in length. The department will not consider a thesis that exceeds 100,000 words.
- The residency requirement is two years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
• The PhD in Music, Music Theory field is a research degree. Exceptional students may be admitted directly to the doctoral stream with an appropriate four-year University of Toronto bachelor's degree (normally in music theory or musicology), or its equivalent from a recognized university, with at least an A– average in courses.

• Applicants must submit an essay of approximately 3,000 words pertaining to music theory and which demonstrates their ability to handle a research problem.

• Applicants, whether from the University of Toronto or elsewhere, may be interviewed by the department.

• Two letters of reference commenting on the applicant's academic ability and promise.

Program Requirements

• Coursework. Students must complete 6.0 full-course equivalents (FCEs) as follows:
  o 3.0 FCEs at the graduate level in Year 1 with a minimum average of A–. The exception is MUS3997H Research in Music Theory, which lays the groundwork for the field examination and dissertation: this course must be started at the beginning of the second session of Year 1 and completed by the end of the first session of Year 2.
  o An intermediate-level language exam in Year 1. All language requirements must be completed by Year 3.
  o Following successful completion of Year 1, students must then complete all program requirements of the four-year PhD program.
  o 0.5 FCE: MUS1250H PhD Seminar, taken in the first session of Year 2.
  o 0.5 FCE: MUS3997H Research in Music Theory.
  o 1.0 FCE in graduate-only seminars in music theory.
  o 1.0 FCE in electives, of which 0.5 FCE may be taken outside of musicology, ethnomusicology, and music theory (either in the Graduate Department of Music or another graduate unit). With approval from the CPA committee, one 0.5 FCE course may be deferred to the first session of Year 2.
  o Students may be required to take additional courses or acquire other skills to meet the needs of their proposed subjects of study.
  o A course and program advising (CPA) committee will review course selections. The CPA committee will ensure course selections meet the requirements of the program and are appropriate to the field.

• A set of three (written) comprehensive exams in (1) history of the field; (2) current issues in the field; and (3) repertoire and analysis, to be taken at the beginning of Year 3.
  o Students are permitted two attempts to complete each exam. A second attempt must take place at the beginning of the second session. If the second attempt is unsuccessful, the department will recommend termination of the student's program.

• Two research languages in addition to English are required: one secondary and one primary. The goal is to have all language requirements fulfilled by the end of Year 2.
  o The default language for the secondary language requirement is German. Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 1. Students can fulfill the secondary language requirement in one of the following three ways:
    ▪ Complete GER300H at U of T or its equivalent from another university, with a minimum grade of B+; or
    ▪ Complete GER6000H; or
    ▪ Pass a proficiency exam set by the Division.
  o Students are expected to complete the secondary language requirement by the end of Year 1.
  o The primary language requirement involves advanced reading proficiency in the chosen language. Students who wish to choose languages other than German must submit a petition to the Division Head (either Musicology or Music Theory) by the end of the first session of Year 1. Information on petitioning is available at the Faculty of Music Graduate Studies Office. Students can fulfill the primary language requirement in one of the following three ways:
    ▪ Complete a 400-level language course at U of T or its equivalent from another university, with a minimum grade of B+; or
    ▪ Pass a proficiency exam set by the Division; or
    ▪ Pass an exam in another graduate unit by arrangement through the Graduate Department of Music.

• Students are allowed two attempts at the in-house exam, after which they must take a language course at the appropriate MA or PhD level. All language requirements must be completed by the end of Year 3. Exceptions are granted only in extenuating circumstances and by petition.

• Students must prepare a thesis under the direction of an advisor and a committee and will defend it at a Doctoral Final Oral Examination. The thesis, including bibliography and appendices, should ideally be between 75,000 and 80,000 words in length. The department will not consider a thesis that exceeds 100,000 words.

• The residency requirement is three years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

5 years

Time Limit

7 years

Music: Music MA, PhD; Fields: Ethnomusicology and Musicology Courses

Final course offerings may vary. Students should consult the departmental handbook.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MUS1000H</td>
<td>Introduction to Music Research I</td>
</tr>
<tr>
<td>MUS1002H</td>
<td>Fieldwork Methods and Practicum</td>
</tr>
<tr>
<td>MUS1005H</td>
<td>Public Musicology</td>
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<tr>
<td>MUS1006H</td>
<td>Public Music Scholarship</td>
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<tr>
<td>MUS1042H</td>
<td>The Ballets Russes</td>
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<tr>
<td>MUS1056H</td>
<td>Approaches to Meaning in the Renaissance Motet</td>
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<tr>
<td>MUS1057H</td>
<td>Performing Politics: Individuality and the Collective in Music and Dance</td>
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<tr>
<td>MUS1058H</td>
<td>Music and Politics</td>
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<tr>
<td>MUS1065H</td>
<td>Music History Pedagogy</td>
</tr>
<tr>
<td>MUS1066H</td>
<td>Music and the Racial and Ethnic Imaginations</td>
</tr>
<tr>
<td>MUS1069H</td>
<td>Remix Music, from Analogue to Digital</td>
</tr>
<tr>
<td>MUS1070H</td>
<td>Music, Genre, and Variation</td>
</tr>
<tr>
<td>MUS1106H</td>
<td>Early Music in Canada</td>
</tr>
<tr>
<td>MUS1131H</td>
<td>Popular Music and the Immaterial: From Spirituality to Virtuality</td>
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<tr>
<td>MUS1132H</td>
<td>Community-Engaged Music Archiving</td>
</tr>
<tr>
<td>MUS1134H</td>
<td>Music, Capital, Markets, and Industries</td>
</tr>
<tr>
<td>MUS1135H</td>
<td>Music, Sound, and the Environment</td>
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<tr>
<td>MUS1137H</td>
<td>Nationalism in Music and Dance</td>
</tr>
<tr>
<td>MUS1140H</td>
<td>Romantic Musings on the Middle Ages</td>
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<td>MUS1141H</td>
<td>Ethnomusicology of Voice</td>
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<tr>
<td>MUS1142H</td>
<td>Sound, Music, and Everyday Life</td>
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<tr>
<td>MUS1144H</td>
<td>Music in the Films of Sir Alfred Hitchcock</td>
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<td>MUS1145H</td>
<td>Sonic Innovations in Black Popular Musics</td>
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<tr>
<td>MUS1146H</td>
<td>Geographies of Opera: Wagner and Puccini</td>
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<tr>
<td>MUS1147H</td>
<td>Music After the DJ, from Soundsystems to Serato</td>
</tr>
<tr>
<td>MUS1150H</td>
<td>Music and Land: Sounds of Belonging and Exclusion</td>
</tr>
<tr>
<td>MUS1169H</td>
<td>Listening to Cities: Music, Sound, and Noise in Urban Environments</td>
</tr>
<tr>
<td>MUS1234H</td>
<td>Health, Aging and Popular Music</td>
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<tr>
<td>MUS1240H</td>
<td>Diegetic Music in Film</td>
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<tr>
<td>MUS1250H</td>
<td>PhD Seminar</td>
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<tr>
<td>MUS1255H</td>
<td>Issues in Music and Philosophy</td>
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<td>MUS1258H</td>
<td>Keywords in African Sound</td>
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<td>MUS1260H</td>
<td>Music and the Enlightenment</td>
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<td>MUS1267H</td>
<td>Popular Music and Identity</td>
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<td>MUS1270H</td>
<td>Music and East Asian Modernity</td>
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<td>MUS1271H</td>
<td>Music and Circulation</td>
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<tr>
<td>MUS1272H</td>
<td>19th-Century Music and Discourses of Nature</td>
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<tr>
<td>MUS1275H</td>
<td>Sound and Music in the Middle East</td>
</tr>
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<td>MUS1276H</td>
<td>Music and Material Culture</td>
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<td>MUS1278H</td>
<td>Music and Cultures of Listening in Late Modernity</td>
</tr>
<tr>
<td>MUS1279H</td>
<td>Ethnomusicology without Music</td>
</tr>
<tr>
<td>MUS1280H</td>
<td>Analysis and its Futures in Ethnomusicology</td>
</tr>
<tr>
<td>MUS1281H</td>
<td>Ethnomusicology Dissertation Writing Seminar</td>
</tr>
<tr>
<td>MUS1990H</td>
<td>MA Major Paper or Project</td>
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<tr>
<td>MUS1997H</td>
<td>Research in Ethnomusicology</td>
</tr>
<tr>
<td>MUS1998H</td>
<td>Individual Reading and Research</td>
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<tr>
<td>MUS1998H</td>
<td>Research in Musicology</td>
</tr>
<tr>
<td>MUS3265H</td>
<td>Music Cognition</td>
</tr>
<tr>
<td>MUS3266H</td>
<td>Public Music Theory</td>
</tr>
</tbody>
</table>

\(^{0}\) Course that may continue over a program. The course is graded when completed.

### Music: Music MA, PhD; Field: Music and Health Sciences Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MUS4120H</td>
<td>Clinical Voice Pedagogy</td>
</tr>
<tr>
<td>MUS7110H</td>
<td>Neurosciences of Music: Scientific Foundations, Clinical Translations</td>
</tr>
<tr>
<td>MUS7199H</td>
<td>Special Research Topic in Music and Health</td>
</tr>
<tr>
<td>MUS7400H</td>
<td>Introduction to Music and Health Care</td>
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<tr>
<td>MUS7405H</td>
<td>Health in Music Performance</td>
</tr>
<tr>
<td>MUS7406H</td>
<td>Music Psychology</td>
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<tr>
<td>MUS7407H</td>
<td>Clinical Research Practicum</td>
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<tr>
<td>MUS7412H</td>
<td>Elementary Improvisation Methods</td>
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<tr>
<td>MUS7415H</td>
<td>Topics in Music and Health</td>
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<tr>
<td>MUS7416H</td>
<td>Topics in Music and Health II</td>
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<tr>
<td>MUS7995Y</td>
<td>Music and Health Doctoral Research Project</td>
</tr>
<tr>
<td>MUS7998Y</td>
<td>Readings in Advanced Topics in Music and Health</td>
</tr>
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</table>

\(^{0}\) Course that may continue over a program. The course is graded when completed.

### Music: Music MA, PhD; Field: Music Education Courses

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MUS2001H</td>
<td>Music in Cultural Perspective</td>
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<tr>
<td>MUS2004H</td>
<td>Music for Children</td>
</tr>
<tr>
<td>MUS2010H</td>
<td>Music and Social Movements</td>
</tr>
<tr>
<td>MUS2111H</td>
<td>Introduction to Research in Music Education</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>MUS1006H</td>
<td>Public Music Scholarship</td>
</tr>
<tr>
<td>MUS1250H</td>
<td>PhD Seminar</td>
</tr>
<tr>
<td>MUS1990H</td>
<td>MA Major Paper</td>
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<tr>
<td>MUS1998H</td>
<td>Individual Reading and Research</td>
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<tr>
<td>MUS3101H</td>
<td>Seminar in Schenkerian Analysis I</td>
</tr>
<tr>
<td>MUS2112H</td>
<td>Advanced Topics in Research in Music Education (prerequisite: MUS2111H)</td>
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<tr>
<td>MUS2113H</td>
<td>Musically Queer</td>
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<tr>
<td>MUS2115H</td>
<td>Truth and Reconciliation</td>
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<tr>
<td>MUS2116H</td>
<td>Moral Economy of Death in Music, Education, and Pedagogy</td>
</tr>
<tr>
<td>MUS2117H</td>
<td>Sound Studies and Music Education</td>
</tr>
<tr>
<td>MUS2132H</td>
<td>Jazz Education</td>
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<tr>
<td>MUS2151H</td>
<td>Philosophy and Music Education</td>
</tr>
<tr>
<td>MUS2160H</td>
<td>Contemporary Perspectives in Music Education</td>
</tr>
<tr>
<td>MUS2167H</td>
<td>Curriculum Inquiry</td>
</tr>
<tr>
<td>MUS2175H</td>
<td>Teacher Perspectives in Music Education</td>
</tr>
<tr>
<td>MUS2176H</td>
<td>Social Psychology of Music</td>
</tr>
<tr>
<td>MUS2185H</td>
<td>Curriculum and Instruction in Instrumental Music</td>
</tr>
<tr>
<td>MUS2186H</td>
<td>(Un)popular Music Education</td>
</tr>
<tr>
<td>MUS2199H</td>
<td>Special Topics in Music Education</td>
</tr>
<tr>
<td>MUS2203H</td>
<td>Development of the Wind Band</td>
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<tr>
<td>MUS2222H</td>
<td>Conducting and Teaching Choral Music I</td>
</tr>
<tr>
<td>MUS2223H</td>
<td>Conducting and Teaching Choral Music II</td>
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<tr>
<td>MUS2990Y</td>
<td>MA Major Essay (Music Education)</td>
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<tr>
<td>MUS2995Y</td>
<td>Music Education Doctoral Research Project</td>
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<tr>
<td>MUS2998H</td>
<td>Reading in Advanced Topics in Music Education</td>
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<tr>
<td>MUS3231H</td>
<td>Conducting for Composers</td>
</tr>
<tr>
<td>MUS3403H</td>
<td>Theory and Analysis of Atonal Music</td>
</tr>
<tr>
<td>MUS3404H</td>
<td>Extended Tonal Techniques in Twentieth-Century Music</td>
</tr>
<tr>
<td>MUS3405H</td>
<td>Topics in the History of Music Theory: 1600–1950</td>
</tr>
<tr>
<td>MUS3406H</td>
<td>Current Perspectives on Music Theory</td>
</tr>
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<td>MUS3411H</td>
<td>Analytical Methodologies</td>
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<tr>
<td>MUS3412H</td>
<td>Theories of Rhythm and Metre</td>
</tr>
<tr>
<td>MUS3413H</td>
<td>Music and Drama in Wagner's Ring des Nibelungen</td>
</tr>
<tr>
<td>MUS3411H</td>
<td>Research in Music Theory</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.*

### Music: Music Performance MMus; Field: Applied Music and Health

**Master of Music (Field: Applied Music and Health)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program (Bachelor of Music or Bachelor of Arts in Music) and standing from another recognized university.
- Selected applicants must pass an audition and interview.
- Two letters of reference commenting on the applicant's music performance ability, academic ability, and professional promise.
Program Requirements

• **Coursework.** Students must complete 9.0 full-course equivalents (FCEs) as follows:
  
  o **Year 1:**
    - 1.0 FCE: MUS4112Y Clinical Performance Practicum
    - 1.0 FCE: MUS4165Y Applied Music for Clinical Practice
    - 1.0 FCE: MUS4166Y Performance Project (Credit/No Credit)
    - 0.5 FCE: MUS7406H Music Psychology
    - 0.5 FCE: MUS7412H Elementary Improvisation Methods
    - 0.5 FCE: MUS7415H Topics in Music and Health Care I
    - 0.5 FCE: MUS7416H Topics in Music and Health Care II
    - 0.5 FCE: an approved counselling elective course
    - Note: students who have not previously completed MUS7400H Introduction to Music and Health Care (or an equivalent course) will be required to complete MUS7400H (0.5 FCE) in Year 1 in addition to the program requirements listed above.
  
  o **Year 2:**
    - 1.0 FCE: MUS4115Y Principles of Clinical Performance Pedagogy
    - 1.0 FCE: MUS4188Y Public Capstone Presentation (Credit/No Credit)
    - 0.5 FCE: MUS7110H Neurosciences of Music: Scientific Foundations, Clinical Translations
    - 0.5 FCE: MUS7407H Clinical Research Practicum
    - 0.5 FCE: MUS4188Y Public Capstone Presentation (Credit/No Credit; 0.0 FCE)
    - 0.5 FCE: elective in Music or, with permission, outside of Music. MUS4120H Clinical Voice Pedagogy is recommended.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

0 Course that may continue over a program. The course is graded when completed.

Music: Music Performance MMus; Field: Collaborative Piano

Master of Music (Field: Collaborative Piano)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.

• Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.

• Selected applicants must pass an audition.

• Two letters of reference commenting on the applicant's music performance ability, academic ability, and professional promise.

Program Requirements

• **Coursework.** Students must complete 7.0 full-course equivalents (FCEs) as follows:
  
  o **Year 1:**
    - 1.0 FCE: MUS4200Y Critical Approaches to Music History, normally taken in Year 1
    - 1.0 FCE: MUS4444Y Applied Music I
    - 1.0 FCE: MUS4445Y Applied Music II
    - 0.5 FCE selected from
      - MUS4600H Performance Practices Before 1800
      - MUS4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries
      - MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  
  o **Year 2:**
    - 0.5 FCE: MUS4210H Introduction to Music Analysis
    - 0.5 FCE: MUS4213H Advanced Repertoire for Singers and Pianists I
    - 0.5 FCE: MUS4214H Advanced Repertoire for Singers and Pianists II
    - 0.5 FCE: MUS4502H Collaborative Piano Techniques I
    - 0.5 FCE: MUS4506H Sonata Coaching I
    - 0.5 FCE: MUS4508H Collaborative Piano Techniques II or MUS4509H Collaborative Piano Techniques II Vocal
    - 0.5 FCE: elective.

  • Based on the outcome of preliminary consultations with the department, students may be required to take:
    - 0.5 FCE: MUS4520H Advanced Diction Studies I or
    - 0.5 FCE: MUS4521H Advanced Diction Studies II — Italian or
    - 0.5 FCE: MUS4522H Advanced Diction Studies III.

  • **Two recitals,** one in each year:
    - 1.0 FCE: MUS6666Y Recital I
    - 1.0 FCE: MUS8888Y Recital II.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

0 Course that may continue over a program. The course is graded when completed.
Music: Music Performance MMus; Field: Composition

Master of Music (Field: Composition)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music’s additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Selected applicants must pass an audition.
- Two letters of reference commenting on the applicant’s music performance ability, academic ability, and professional promise.

Program Requirements

- **Coursework.** Students in choral conducting must complete a total of 8.0 full-course equivalents (FCEs). Students in orchestral conducting and wind ensemble conducting must complete 7.0 FCEs.
  - 1.0 FCE: MUS4200Y Critical Approaches to Music History, normally taken in Year 1.
  - 0.5 FCE selected from:
    - MUS4600H Performance Practices Before 1800
    - MUS4606H Special Topics in Performance Practice
    - MUS4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries
    - MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  - 0.5 FCE: MUS4210H Introduction to Music Analysis
  - 1.0 FCE: MUS4444Y Applied Music I
  - 1.0 FCE: MUS4445Y Applied Music II
  - Students in choral conducting must also complete 4.0 FCEs as follows:
    - 0.5 FCE: MUS4220H Orchestral Conducting I
    - 0.5 FCE: MUS4223H Choral Conducting I
    - 0.5 FCE: MUS4224H Choral Conducting II
    - 1.0 FCE: MUS4225Y Advanced Choral Conducting
    - 1.0 FCE: MUS4230Y Vocal-Choral Pedagogy for Conductors
    - 0.5 FCE: MUS4700H Major Ensemble I (choral).
  - Students in orchestral conducting must also complete 3.0 FCEs as follows:
    - 0.5 FCE: MUS4220H Orchestral Conducting I
    - 0.5 FCE: MUS4221H Orchestral Conducting II
    - 1.0 FCE: MUS4222Y Advanced Orchestral Conducting
    - 0.5 FCE: MUS4223H Choral Conducting I
    - 0.5 FCE: elective
  - Students in wind ensemble conducting must also complete 3.0 FCEs as follows:
    - 0.5 FCE: MUS2203H Development of the Wind Band
    - 0.5 FCE: MUS4226H Wind Ensemble Conducting I
    - 0.5 FCE: MUS4227H Wind Ensemble Conducting II
    - 0.5 FCE: MUS4228H Advanced Wind Conducting I
    - 0.5 FCE: MUS4229H Advanced Wind Conducting II
    - 0.5 FCE: elective
  - Two recitals, one in each year:
    - 1.0 FCE: MUS6666Y Recital I
    - 1.0 FCE: MUS8888Y Recital II.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time
Music: Music Performance MMus; Field: Historical Performance

Master of Music (Field: Historical Performance)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Selected applicants must pass an audition.
- Two letters of reference commenting on the applicant's music performance ability, academic ability, and professional promise.

Program Requirements

- **Coursework.** Students must complete 7.0 full-course equivalents (FCEs) as follows:
  - 5.0 FCEs must include:
    - 1.0 FCE: MUS4200Y Critical Approaches to Music History, normally taken in Year 1
    - 2.0 FCEs: MUS4444Y0 Applied Music I and MUS4445Y0 Applied Music II
    - 0.5 FCE selected from:
      - MUS4600H Performance Practices Before 1800
      - MUS4606H Special Topics in Performance Practice
      - MUS4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries
      - MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  - 0.5 FCE: MUS4210H Introduction to Music Analysis
  - 1.0 FCE in large ensembles:
    - MUS4774H Schola Cantorum I and MUS4775H Schola Cantorum II or
    - MUS4776H Collegium Musicum I and MUS4777H Collegium Musicum II
  - 2.0 elective FCEs from a specified list approved by the department.
- **Two recitals,** one in each year. Recitals may include a chamber component with the approval of the department.
  - 1.0 FCE: MUS6666Y0 Recital I
  - 1.0 FCE: MUS8888Y0 Recital II.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

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Music: Music Performance MMus; Field: Instrumental

Master of Music (Field: Instrumental)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Selected applicants must pass an audition.
- Two letters of reference commenting on the applicant's music performance ability, academic ability, and professional promise.

Program Requirements

- **Coursework.** Students must complete 7.0 full-course equivalents (FCEs), of which 5.0 FCEs must include:
  - 1.0 FCE: MUS4200Y Critical Approaches to Music History, normally taken in Year 1
  - 0.5 FCE: MUS4210H Introduction to Music Analysis
  - 1.0 FCE: MUS4444Y0 Applied Music I
  - 1.0 FCE: MUS4445Y0 Applied Music II
  - 0.5 FCE selected from:
    - MUS4600H Performance Practices Before 1800
    - MUS4606H Special Topics in Performance Practice
    - MUS4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries
    - MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  - Students in brass, percussion, strings, and woodwinds will complete 1.0 FCE as two years of ensemble performance. Placement to be determined by audition.
  - Students in piano solo performance must complete MUS5700H Piano Master Class I (0.5 FCE) and MUS5701H Piano Master Class II (0.5 FCE).
  - In place of the ensemble performance, accordion, guitar, harp, harpsichord, organ, and piano students will select 1.0 FCE in elective courses from a specified list approved by the department.
- **Two recitals,** one in each year. Recitals may include a chamber music component with the approval of the department:
  - 1.0 FCE: MUS6666Y0 Recital I
  - 1.0 FCE: MUS8888Y0 Recital II.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time
Time Limit

3 years full-time

 Oliveira Course that may continue over a program. The course is graded when completed.

Music: Music Performance MMus; Field: Jazz

Master of Music (Field: Jazz)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music’s additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Selected applicants must pass an audition.
- Two letters of reference commenting on the applicant’s music performance ability, academic ability, and professional promise.

Program Requirements

- **Coursework.** Students must complete 7.0 full-course equivalents (FCEs) including:
  - 1.0 FCE: MUS4300Y, normally taken in Year 1
  - 1.0 FCE: MUS4444Y0 Applied Music I
  - 1.0 FCE: MUS4445Y0 Applied Music II
  - 1.0 FCE: MUS4606H Special Topics in Performance Practice and MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  - 1.0 FCE: either
    - MUS4310Y Advanced Jazz Composition and Arranging I or
    - MUS4311Y Advanced Jazz Composition and Arranging II or
  - 1.0 FCE chosen from a specified list approved by the department.
- Students must also include in their programs 1.0 FCE selected from one or more of the following areas:
  - Small Group Jazz Ensemble Performance
    - MUS4740H Small Group Jazz Performance I
    - MUS4741H Small Group Jazz Performance II
    - MUS4742H Small Group Jazz Performance III
  - Jazz Orchestra
    - MUS4750H Jazz Orchestra I
    - MUS4751H Jazz Orchestra II
    - MUS4752H Jazz Orchestra III
    - MUS4753H Jazz Orchestra IV
  - Vocal Jazz Ensemble
    - MUS4760H Vocal Jazz Ensemble I
    - MUS4761H Vocal Jazz Ensemble II
    - MUS4762H Vocal Jazz Ensemble III
    - MUS4763H Vocal Jazz Ensemble IV.
  - Two recitals, one in each year. However, students may elect to replace one recital with a significant recording project.
    - 1.0 FCE: MUS6666Y0 Recital I
    - 1.0 FCE: MUS8888Y0 Recital II.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

 Oliveira Course that may continue over a program. The course is graded when completed.

Music: Music Performance MMus; Field: Music Technology and Digital Media

Master of Music (Field: Music Technology and Digital Media)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music’s additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Applicants must submit a portfolio (for example, scores, recordings, multimedia creations) that demonstrates at least two of the following:
  - knowledge of computer applications in music;
  - competency in music performance or composition (acoustic or digital);
  - released body of musical works/recordings as composer, sound engineer, or producer.
- Selected applicants must pass an audition and interview.
- Two letters of reference commenting on the applicant’s music performance ability, academic ability, and professional promise.

Program Requirements

- **Coursework.** Students must complete 7.0 full-course equivalents (FCEs) as follows:
  - Year 1 (3.5 FCEs)
    - 0.5 FCE: MUS3610H Music Entrepreneurship: Music and Cities
    - 0.5 FCE: MUS3611H Creative Applications of Technology I
    - 0.5 FCE: MUS3612H Creative Applications of Technology II
    - 0.5 FCE: MUS3614H Sound Recording I
    - 0.5 FCE: MUS3615H Sound Recording II
  - Year 2 (3.5 FCEs)
    - 0.5 FCE: MUS4310Y Advanced Jazz Composition and Arranging I
    - 0.5 FCE: MUS4311Y Advanced Jazz Composition and Arranging II
    - 1.0 FCE: either
      - MUS4606H Special Topics in Performance Practice and MUS4615H Analysis and Performance Practices of Twentieth-Century Music
      - 1.0 FCE chosen from a specified list approved by the department.
    - Students must also include in their programs 1.0 FCE selected from one or more of the following areas:
      - Small Group Jazz Ensemble Performance
        - MUS4740H Small Group Jazz Performance I
        - MUS4741H Small Group Jazz Performance II
        - MUS4742H Small Group Jazz Performance III
      - Jazz Orchestra
        - MUS4750H Jazz Orchestra I
        - MUS4751H Jazz Orchestra II
        - MUS4752H Jazz Orchestra III
        - MUS4753H Jazz Orchestra IV
      - Vocal Jazz Ensemble
        - MUS4760H Vocal Jazz Ensemble I
        - MUS4761H Vocal Jazz Ensemble II
        - MUS4762H Vocal Jazz Ensemble III
        - MUS4763H Vocal Jazz Ensemble IV.
1.0 elective FCE:
0.5 FCE selected from Music Technology and Digital Media and
0.5 FCE selected from any of the Faculty of Music graduate courses.

Year 2 (3.5 FCEs)
0.5 FCE: JDM3619H Digital Media Distribution (Credit/No Credit)
2.0 FCEs: electives selected from an approved department list, or from another graduate unit, with permission.
1.0 FCE: MUS3666Y0 Music Technology and Digital Media Major Project (Credit/No Credit), completed in Year 2, consisting of a new musical composition or version recorded, mixed, produced, and mastered, integrating at least two media such as electronic and acoustic, music for picture, or live performance with multimedia.

Program Length
6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit
3 years full-time

Course that may continue over a program. The course is graded when completed.

Music: Music Performance MMus; Field: Opera

Master of Music (Field: Opera)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Selected applicants must pass an audition.
- Two letters of reference commenting on the applicant's music performance ability, academic ability, and professional promise.

Program Requirements

- Coursework. Students must complete 7.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE: MUS4200Y Critical Approaches to Music History, taken in Year 1
  - 0.5 FCE: MUS4210H Introduction to Music Analysis
  - 1.0 FCE: MUS4444Y0 Applied Music I
  - 1.0 FCE: MUS4445Y0 Applied Music II
  - 1.0 FCE: MUS4513Y Operatic Repertory, taken in Year 2
  - 2.0 FCEs: MUS4900Y Operatic Studies I and MUS4901Y Operatic Studies II
  - 0.5 FCE: elective chosen from a specified list approved by the department.
- Performance in operatic productions will be evaluated by a committee and assigned grades under MUS4966Y0 Operatic Roles I (1.0 FCE) and MUS4988Y0 Operatic Roles II (1.0 FCE).

Program Length
6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit
3 years full-time

Course that may continue over a program. The course is graded when completed.

Music: Music Performance MMus; Field: Piano Pedagogy

Master of Music (Field: Piano Pedagogy)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Selected applicants must pass an audition.
- Two letters of reference commenting on the applicant's music performance ability, academic ability, and professional promise.

Program Requirements

- Coursework. Students must complete 7.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE: MUS4200Y Critical Approaches to Music History, normally taken in Year 1.
  - 0.5 FCE: MUS4210H Introduction to Music Analysis
  - 1.0 FCE: MUS4444Y0 Applied Music I
  - 1.0 FCE: MUS4445Y0 Applied Music II
  - 0.5 FCE: MUS4270H Piano Pedagogy: Beginning and Intermediate Levels
  - 0.5 FCE: MUS4271H Practicum: Beginning and Intermediate Levels
  - 0.5 FCE: MUS4272H Piano Pedagogy: Advanced and University Levels
  - 0.5 FCE: MUS4273H Practicum: Advanced and University Levels
  - 0.5 FCE selected from:
    - MUS4600H Performance Practices Before 1800
- MUS4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries
- MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  - 1.0 FCE: electives.

- **Two recitals.** With approval, one recital may be replaced by a pedagogy project and presentation.
  - 1.0 FCE: MUS6666Y0 Recital I
  - 1.0 FCE: MUS8888Y0 Recital II.

**Program Length**

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

**Time Limit**

3 years full-time

\(^o\) Course that may continue over a program. The course is graded when completed.

Music: Music Performance MMus; Field: Vocal Pedagogy

**Master of Music (Field: Vocal Pedagogy)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music's additional admission requirements stated below.
- Applicants to the MMus program must hold a Bachelor of Music degree in the area of specialization from the University of Toronto with an average standing of mid-B or better over the final two years or an equivalent program and standing from another recognized university.
- Selected applicants must pass an audition.
- Two letters of reference commenting on the applicant's music performance ability, academic ability, and professional promise.

**Program Requirements**

- **Coursework.** Students must complete **7.0 full-course equivalents (FCEs)** as follows:
  - 4.0 FCEs must include:
    - 1.0 FCE: MUS4200Y Critical Approaches to Music History, normally taken in Year 1
    - 0.5 FCE: MUS4210H Introduction to Music Analysis
    - 1.0 FCE: MUS4444Y0 Applied Music I
    - 1.0 FCE: MUS4445Y0 Applied Music II
    - 0.5 FCE selected from:
      - MUS4600H Performance Practices Before 1800 or MUS4606H Special Topics in Performance Practice;
      - MUS4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries;
      - MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  - 3.0 FCEs: electives chosen from a specified list approved by the department.
- **Two recitals.** Recitals may include a chamber music component with the approval of the department.
  - 1.0 FCE: MUS6666Y0 Recital I
  - 1.0 FCE: MUS8888Y0 Recital II.

**Program Requirements**

- **Coursework.** Students must complete **8.0 full-course equivalents (FCEs)** as follows:
  - 1.0 FCE: MUS4200Y Critical Approaches to Music History, normally taken in Year 1
  - 0.5 FCE: MUS4210H Introduction to Music Analysis
  - 0.5 FCE selected from:
    - MUS4213H Advanced Repertoire for Singers and Pianists I
    - MUS4231H Advanced Vocal Repertoire Study I
  - 1.0 FCE: MUS4240Y Introduction to Voice Pedagogy and Vocology
  - 1.0 FCE: MUS4241Y Advanced Vocal Pedagogy and Vocology
  - 0.5 FCE: MUS4248H Optimizing the Singing Mind
  - 1.0 FCE: MUS4444Y0 Applied Music I
  - 1.0 FCE: MUS4445Y0 Applied Music II
  - 0.5 FCE selected from:
    - MUS4600H Performance Practices Before 1800
    - MUS4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries
• MUS4615H Analysis and Performance Practices of Twentieth-Century Music
  o 0.5 FCE: MUS7406H Music Psychology
  o 0.5 FCE: elective chosen from a list of courses approved by the department.
• Two recitals:
  o 1.0 FCE: MUS6666Y0 Recital I
  o 1.0 FCE: MUS8888Y0 Recital II.

Program Requirements

• Coursework. Students must complete a minimum of 5.0 full-course equivalents (FCEs), including:
  o 1.0 FCE: MUS3300Y DMA Advanced Composition I
  o 1.0 FCE: MUS3305Y DMA Advanced Composition II
  o 1.0 FCE: MUS3999Y0 Research in Composition, selected in consultation with the advisory committee
  o Students entering from outside the University of Toronto will be given diagnostic tests in musical analysis, counterpoint, and harmony, the result of which may be additional course requirements beyond the 5.0 FCEs.
• Upon completion of coursework, students are required to present a recital of original works (MUS3888Y0 DMA Recital of Works; 1.0 FCE) to the satisfaction of the department. In some cases, professional-quality tapes of performances totalling the equivalent of a full recital may be substituted.
• The thesis for the DMA shall be an extended composition approved by the department, prepared under the supervision of an advisory committee and defended at the Doctoral Final Oral Examination.
• The residency requirement is two years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

0 Course that may continue over a program. The course is graded when completed.

Music: Music Performance DMA; Field: Composition

Doctor of Musical Arts (Field: Composition)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music’s additional admission requirements stated below.
• Applicants for the DMA in the Composition field must hold a Master of Music Performance degree specializing in Composition from the University of Toronto, or its equivalent from another recognized university, with an average standing of B+ or better.
• Two or more extended compositions in various media and a recording of at least one of these works must be submitted together with the application and complete academic credentials.
• Two letters of reference commenting on the applicant’s composition ability, academic ability, and professional promise.

Program Requirements

• Coursework. Students must complete a minimum of 5.0 full-course equivalents (FCEs) as follows:
  o 1.0 FCE: MUS4800Y DMA Seminar, taken in the first session.
  o 0.5 FCE: MUS4899H Research in Performance, begun in the second session.
  o 1.0 FCE: MUS4844Y0 Advanced Applied Music I.
  o 1.0 FCE: MUS4845Y0 Advanced Applied Music II.
  o The remaining 1.5 FCEs must be graduate seminar courses.
  o Coursework should be completed by the end of Year 2 with an average grade of at least A–. Exceptions to the time of completion are:

Program Length

4 years full-time

Time Limit

6 years full-time

0 Course that may continue over a program. The course is graded when completed.

Music: Music Performance DMA; Field: Performance

Doctor of Musical Arts (Field: Performance)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Music’s additional admission requirements stated below.
• Applicants for the DMA in the Performance field must hold a Master of Music degree specializing in Performance from the University of Toronto, or its equivalent from another university, with an average standing of B+ or better.
• Applicants are required to pass an audition.
• An essay of approximately 3,000 words which demonstrates the student’s ability to handle a research problem.
• Applicants, whether from the University of Toronto or elsewhere, may be interviewed by the department.
• Two letters of reference commenting on the applicant’s music performance ability, academic ability, and professional promise.

Program Requirements

• Coursework. Students must complete a minimum of 5.0 full-course equivalents (FCEs) as follows:
  o 1.0 FCE: MUS4800Y DMA Seminar, taken in the first session.
  o 0.5 FCE: MUS4899H Research in Performance, begun in the second session.
  o 1.0 FCE: MUS4844Y0 Advanced Applied Music I.
  o 1.0 FCE: MUS4845Y0 Advanced Applied Music II.
  o The remaining 1.5 FCEs must be graduate seminar courses.
  o Coursework should be completed by the end of Year 2 with an average grade of at least A–. Exceptions to the time of completion are:
• MUS4899Y Research in Performance, to be taken in the Winter session of Year 1 and the Fall of Year 2, which lays the groundwork for the dissertation research and leads to a field examination at the end of Year 2; and
• MUS4845Y Advanced Applied Music II. Students may be required to take additional courses or acquire other skills to meet the needs of their proposed areas of study.

• Students are permitted two attempts to complete the field examination. If students are unsuccessful in their second attempt at the field examination, the department will make a recommendation for program termination.

• Three DMA recitals.
  o 1.0 FCE: MUS4866Y DMA Recital I
  o 1.0 FCE: MUS4877Y DMA Recital II
  o 1.0 FCE: MUS4888Y DMA Recital III.
  o The format of these recitals will be determined in consultation with the supervisor and the supervisory committee.

• Reading knowledge of one language other than English is required. The required language will be determined by the department. The department may require competence in additional languages. All remaining course and language requirements, including the field exam, must be completed successfully by the end of Year 2.

• The residency requirement is two years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 years full-time

Time Limit

6 years full-time

0 Course that may continue over a program. The course is graded when completed.

Music: Music Performance MMus, DMA; Field: Composition Courses

Final course offerings may vary. Students should consult the departmental handbook.

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<tr>
<td>MUS3101H</td>
<td>Seminar in Schenkerian Analysis I</td>
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<tr>
<td>MUS3102H</td>
<td>Seminar in Schenkerian Analysis II</td>
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<tr>
<td>MUS3105Y</td>
<td>MMus Advanced Composition II</td>
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<td>MUS3110H</td>
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<td>MUS3116H</td>
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<td>Score Analysis for Composers and Conductors</td>
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<tr>
<td>MUS3204H</td>
<td>Advanced Orchestration</td>
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<td>MUS3205H</td>
<td>Score Analysis II for Composers and Conductors (prerequisite: MUS3203H or permission of the instructor)</td>
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<td>MUS3211H</td>
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<td>MUS3230H</td>
<td>The Music of Messiaen, Schnittke, and Pärt</td>
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<tr>
<td>MUS3231H</td>
<td>Conducting for Composers</td>
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Music: Music Performance MMus; Field: Applied Music and Health Courses

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<td>Clinical Voice Pedagogy</td>
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<td>MUS4112Y</td>
<td>Clinical Performance Practicum</td>
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<tr>
<td>MUS4115Y</td>
<td>Principles of Clinical Performance Pedagogy</td>
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<td>MUS4165Y0</td>
<td>Applied Music for Clinical Practice</td>
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<tr>
<td>MUS4166Y</td>
<td>Performance Project (Credit/No Credit)</td>
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<td>MUS4188Y</td>
<td>Public Capstone Presentation (Credit/No Credit)</td>
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<tr>
<td>MUS7110H</td>
<td>Neurosciences of Music: Scientific Foundations, Clinical Translations</td>
</tr>
<tr>
<td>MUS7400H</td>
<td>Introduction to Music and Health Care</td>
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0 Course that may continue over a program. The course is graded when completed.
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MUS3232H</td>
<td>Romantic Form: The Orchestral Music of Berlioz, Mendelssohn, Schumann, and Wagner</td>
</tr>
<tr>
<td>MUS3233H</td>
<td>Compositional Identity and Practice in the 21st Century</td>
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<td>MUS3244H</td>
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<tr>
<td>MUS3258H</td>
<td>Songwriting (prerequisite: MIDI Orchestration and Improvisation)</td>
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<tr>
<td>MUS3260H</td>
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<tr>
<td>MUS3300Y</td>
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<td>MUS3305Y</td>
<td>DMA Advanced Composition II</td>
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<td>MUS3306H</td>
<td>Pedagogy of Music Theory</td>
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*Course that may continue over a program. The course is graded when completed.*

Music: Music Performance MMus, DMA; Field: Performance Courses

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Music: Music Performance MMus; Field: Music Technology and Digital Media Courses

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* Course that may continue over a program. Credit is given when the course is completed.

* Course that may continue over a program. The course is graded when completed.
Near and Middle Eastern Civilizations

NMC: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Near and Middle Eastern Civilizations

MA and PhD

- Fields:
  - Ancient and Near Eastern Studies;
  - Middle Eastern and Islamic Studies

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Diaspora and Transnational Studies
  - Near and Middle Eastern Civilizations, MA, PhD
- Jewish Studies
  - Near and Middle Eastern Civilizations, MA, PhD
- Mediterranean Archaeology
  - Near and Middle Eastern Civilizations, PhD
- Sexual Diversity Studies
  - Near and Middle Eastern Civilizations, MA, PhD
- Women and Gender Studies
  - Near and Middle Eastern Civilizations, MA, PhD

Overview

In the Department of Near and Middle Eastern Civilizations, faculty conduct research in the following areas: Egyptology, including archaeology, language, history, and religion; Mesopotamia and the Near East, including archaeology and Assyriology; Syro-Palestinian archaeology; Hebrew and Judaic studies, including Biblical and Rabbinic Hebrew, law, history, religion, and modern Hebrew literature; Aramaic (Ancient, Biblical, Targumic, and Talmudic Aramaic) and Syriac studies, including language, history, religion; Arabic studies; Islamic studies; history of the Islamic world and the modern Middle East; Islamic art; Persian studies; and Turkish studies, including Ottoman language and history.

Contact and Address

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Telephone: (416) 978-3181
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University of Toronto
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Toronto, Ontario M5S 1C1
Canada

NMC: Graduate Faculty

Full Members

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Bahooora, Haytham - BA, MA, PhD
Baker, Heather D. - DPhil
Beaulieu, Paul-Alain - LLB, BA, MA, PhD (Chair and Graduate Chair)
Fox, Harry - BSc, BA, MS, MA, PhD
Goebs, Katja - MA, DPhil
Grzymski, Krzysztof - MA, PhD
Hanssen, Jens - BPhil, DPhil
Harrak, Amir - MA, LTh, PhD
Harrison, Timothy - BA, MA, PhD
Holmstedt, Robert - BA, MA, PhD
Kana’an, Ruba - MPH, MPH, DPhil
Kingston, Paul - BA, MA, MPH, DPhil
Meacham, Tirzah - BA, MA, PhD
Methodieva, Milena - PhD
Miller, Jeannie - BA, MA, PhD (Associate Chair, Graduate)
Mittermaier, Amira - MA, PhD
Mountaz, Nada - PhD
Newman, Judith - PhD
Ostapchuk, Victor - BA, PhD
Pouls Wegner, Mary-Ann - BA, PhD
Raffaelli, Enrico - PhD
Razzaque, Ararat - BA, MTh, AM, PhD
Reichel, Clemens - MA, PhD
Saleh, Walid - BA, MA, PhD
Schipper, Jeremy - MDiv, PhD
Subtelny, Maria - BA, PhD
Tavakoli-Targhi, Mohamad - BA, MA, PhD
Virani, Shafique - PhD
Zakar, Adrien - MA, PhD

Members Emeriti

Aksan, Virginia - BA, MA, MLS, PhD
Daviau, Michele - MTh, PhD
Garshowitz, Libby - BA, MA, PhD
Golombek, Lisa - BA, MA, PhD
Keall, Edward - BA, PhD
Leprohon, Ronald - BA, PhD
Lutz, R. Theodore - MA
Northrup, Linda - BA, MA, PhD
Pietersma, Albert - BA, BD, PhD
Reilly, James - BA, MA, PhD
Sandler, Rivanne - BA, MA, PhD
Taylor, Glen - BA, MPH, MTh, PhD

Associate Members

Ali, Abdel-Khalig - BA, MA, PhD
Ali, Adam - BA, MA, MA, PhD
Arik, Hulya - BA, MA, PhD
Burton, Elise K. - BA, AM, PhD
Emon, Anver - LLB, BA, LLM, MA, PhD, SJD, CRC
Fadel, Mohammad - BA, JD, PhD
Hare, Laura - BA, MTh, PhD
Hojatollah Taleghani, Azita - BA, MA, MA, PhD
Langgut, Dafna - BA, MA, PhD
Mason, Robert - BA, PhD
Mercan, Gozde - BA, MA, PhD
Nizri, Yigal - BFA
Porter, Anne - BA, MA, MA, PhD
NMC: Near and Middle Eastern Civilizations
MA
Master of Arts

Program Description

Depending on the amount of undergraduate preparation, students may enrol in either a two-year MA program or a one-year MA program option. Students can also complete the MA through a coursework option or a thesis option. The MA program may be taken on a part-time basis.

MA Program (One-Year Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Near and Middle Eastern Civilizations' additional admission requirements stated below.
- An appropriate bachelor's degree in a relevant program from a recognized university with an average of at least B+, or equivalent, in the final year.
- Two letters of reference.
- Statement of academic intent.
- Some programs may require appropriate knowledge of a primary source language, or one or more European languages.
- Students choosing to focus on Islamic Art and Material Culture must have a reading knowledge of French or German at the time of admission.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

Coursework Option

- Students must complete 3.0 full-course equivalents (FCEs).

Thesis Option

- Students must complete a thesis (1.0 FCE) under the guidance of a supervisor on a topic approved by the supervisor.
- 2.0 FCEs in coursework.

MA Program (Two-Year Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Near and Middle Eastern Civilizations' additional admission requirements stated below.
- An appropriate bachelor's degree in a relevant program from a recognized university with an average of at least B+, or equivalent, in the final year.
- Two letters of reference.
- Statement of academic intent.
- Some programs may require appropriate knowledge of a primary source language, or one or more European languages.
- Students choosing to focus on Islamic Art and Material Culture must have a reading knowledge of French or German at the time of admission.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

All students must complete 6.0 full-course equivalents (FCEs). Students who choose to focus on Islamic art and material culture must successfully complete at least 2.0 FCEs each in art and in Near and Middle Eastern Civilizations.

Coursework Option

- Students must complete 6.0 FCEs.

Thesis Option

- Students must complete a thesis (1.0 FCE) under the guidance of a supervisor on a topic approved by the supervisor.
- 5.0 FCEs in coursework.

Program Length

- 6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
- 18 sessions part-time
Time Limit

3 years full-time; 6 years part-time

NMC: Near and Middle Eastern Civilizations
PhD

Doctor of Philosophy

Program Description

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate MA or 2) direct entry following completion of a bachelor's degree.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Near and Middle Eastern Civilizations' additional admission requirements stated below.
- Admission via one of two routes:
  - MA degree in a relevant program from a recognized university with at least an A– average or equivalent in courses taken for the MA program.
  - Direct entry from a bachelor's degree for exceptionally qualified applicants, at the discretion of the department.
- Ability to conduct independent research.
- Competence in primary source language(s) relevant to the applicant's research.
- Two letters of reference.
- Statement of academic intent.
- Writing sample of no more than 12 double-spaced pages including footnotes.
- Curriculum vitae (CV)/résumé up to three pages in length.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

- The program of study is determined in consultation with the department and includes written and oral general examinations.
- Each year of the PhD program, students are obligated to consult with their advisor and Graduate Coordinator to see that appropriate coursework is done and that the language requirements are completed on schedule.
- The minimum course requirement will normally be 6.0 full-course equivalents (FCEs) as follows:
  - Year 1: 3.0 FCEs and attend the three designated Year 1 sessions of NMC1030Y Professional Development Seminar (0.0 FCE, Credit/No Credit).
  - Year 2: 3.0 FCEs and attend the three designated Year 2 sessions of NMC1030Y. Completion of NMC1030Y depends upon successful completion of the Year 2 sessions.
- Students who have completed a two-year MA in the department may apply for a course reduction that will be granted at the discretion of the department. The reduction should normally be 1.0 FCE, but may be up to 3.0 FCEs in cases of students who also have an exceptional preparation in their area of study at the BA level. Coursework and all language requirements are to be completed by the end of Year 2.
- In consultation with the supervisor, examining committee, and supervisory committee (if it has already been established), students will prepare a short draft proposal of two to four pages with bibliography by May of Year 2. The short draft proposal will direct some of the preparation for the comprehensive examinations which will take place by the end of the first session of Year 3. A final proposal of at least 10 pages plus bibliography is to be approved by the supervisory committee within one to two months of the completion of the comprehensive exams.
- Students are required to demonstrate reading comprehension in two languages of modern scholarship (typically French and German), the first by the end of Year 1 in residence, and the second by the end of Year 2 of residence. A language other than French or German may be substituted with approval of the Academic Advisor and the Graduate Coordinator. In some cases, the department may require competence in another language relevant to the student's program. The choice of language(s) must be approved by the department. Note that the language requirements are in addition to the course requirements and do not count as part of the 6.0 FCEs.
- Residence. Students are required to be registered on campus for the period during which coursework requirements are being fulfilled, and in no case for less than two academic years.
- Thesis. The thesis must embody the results of original investigation and constitute a significant contribution to knowledge in the field. It must be based on research conducted while registered in the PhD program. The thesis must be successfully defended at a Final Oral Examination.

Program Length

4 years full-time; 5 years direct-entry

Time Limit

6 years full-time; 7 years direct-entry

NMC: Near and Middle Eastern Civilizations
MA, PhD Courses

Akkadian and Sumerian Languages and Literatures

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>NMC1001Y</td>
<td>Introduction to Akkadian</td>
</tr>
<tr>
<td>NMC1002Y</td>
<td>Selected Standard Babylonian Texts</td>
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<tr>
<td>NMC1003Y</td>
<td>Akkadian Historical Texts</td>
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### Archaeology

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<td>NMC1404H</td>
<td>Archaeological Reconstructions of Pottery Production and Consumption in the Middle Euphrates</td>
</tr>
<tr>
<td>NMC1406Y</td>
<td>Problems in the Archaeology of Bronze Age Syria-Palestine</td>
</tr>
<tr>
<td>NMC1408Y</td>
<td>Seminar in the Archaeology of Syria-Palestine</td>
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<tr>
<td>NMC1409H</td>
<td>Archaeology and Material Culture of Ancient Egypt I</td>
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<tr>
<td>NMC1410H</td>
<td>Archaeology and Material Culture of Ancient Egypt II</td>
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<tr>
<td>NMC1411H</td>
<td>Near Eastern Ceramics I</td>
</tr>
<tr>
<td>NMC1412H</td>
<td>Near Eastern Ceramics II</td>
</tr>
<tr>
<td>NMC1413H</td>
<td>Archaeology of Mesopotamia I: Rise of Civilization</td>
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<tr>
<td>NMC1414H</td>
<td>Egyptian Artifacts</td>
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<tr>
<td>NMC1415H</td>
<td>Archaeology of Mesopotamia II: States and Empires</td>
</tr>
<tr>
<td>NMC1416H</td>
<td>Egyptian Iconography</td>
</tr>
<tr>
<td>NMC1418Y</td>
<td>Archaeology of Nubia</td>
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<tr>
<td>NMC1419Y</td>
<td>Art, Archaeology and Culture of Egypt in the Age of the Pyramids</td>
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<td>NMC1421H</td>
<td>Seminar in Egyptian Archaeology I</td>
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<td>NMC1422H</td>
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<tr>
<td>NMC1423H</td>
<td>Ancient Iraq</td>
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<td>NMC1425H</td>
<td>Mesopotamian Material Culture — Art versus Artifact</td>
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<tr>
<td>NMC1426H</td>
<td>Sacred versus Secular Space: Mesopotamian Architecture in Context</td>
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<td>NMC1427H</td>
<td>Archaeology of State Societies</td>
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<td>NMC1428H</td>
<td>The Archaeology of Sumer</td>
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<tr>
<td>NMC1430H</td>
<td>Warfare — The Archaeology of Conflict</td>
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<tr>
<td>NMC1431H</td>
<td>The Archaeology of Death</td>
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<tr>
<td>NMC1432H</td>
<td>The History and Archaeology of the Horn of Africa and South Arabia</td>
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### Ancient Egyptian Language and Literature

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<td>Introduction to Middle Egyptian</td>
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<tr>
<td>NMC1202Y</td>
<td>Intermediate Middle Egyptian</td>
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<tr>
<td>NMC1203Y</td>
<td>Late Egyptian Texts</td>
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<tr>
<td>NMC1204Y</td>
<td>Cursive Scripts</td>
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<td>NMC1209H</td>
<td>Old Egyptian Texts</td>
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<td>NMC1210H</td>
<td>Ancient Egyptian Historical Texts</td>
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<td>NMC1213H</td>
<td>Ancient Egyptian Religious and Funerary Texts</td>
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<tr>
<td>NMC1215H</td>
<td>Ancient Egyptian Instructional Texts (Prerequisites: NMC1201Y, NMC1202Y.)</td>
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### Arabic Studies

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<td>Elementary Standard Arabic</td>
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<td>NMC2101Y</td>
<td>Intermediate Standard Arabic I</td>
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<tr>
<td>NMC2102Y</td>
<td>Intermediate Standard Arabic II</td>
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<tr>
<td>NMC2103Y</td>
<td>Advanced Standard Arabic</td>
</tr>
<tr>
<td>NMC2110H</td>
<td>Al-Jahiz and His Debate Partners</td>
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<tr>
<td>NMC2130H</td>
<td>Adab and Arabic Literary Prose</td>
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<tr>
<td>NMC2131H</td>
<td>Premodern Arabic Poetry</td>
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### Aramaic-Syriac Language and Literature

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<tr>
<td>NMC1100Y</td>
<td>Introduction to Aramaic</td>
</tr>
<tr>
<td>NMC1101Y</td>
<td>Early Syriac Texts</td>
</tr>
<tr>
<td>NMC1102Y</td>
<td>Western Aramaic — Jerusalem Talmud</td>
</tr>
<tr>
<td>NMC1105Y</td>
<td>Syriac Historical Texts</td>
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<tr>
<td>NMC1106Y</td>
<td>Syriac Exegetical Texts</td>
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<tr>
<td>NMC1110H</td>
<td>Targum — Aramaic Bible Translations</td>
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<tr>
<td>NMC1111Y</td>
<td>Eastern Aramaic — Babylonian Talmud</td>
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### Hebrew Language and Literature

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<tr>
<td>NMC1306H</td>
<td>Scribes, Manuscripts, and Translations of the Hebrew Bible</td>
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<tr>
<td>NMC1307H</td>
<td>History of Ancient Israel</td>
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<tr>
<td>NMC1308H</td>
<td>Readings in Hebrew Bible</td>
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<td>NMC1310H</td>
<td>Readings in Second Temple Period Texts</td>
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<tr>
<td>NMC1313H</td>
<td>Mishnah and Tosefta</td>
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<tr>
<td>NMC1314H</td>
<td>Law in Ancient Judaism</td>
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<tr>
<td>NMC1315H</td>
<td>Advanced Readings in the Dead Sea Scrolls</td>
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<tr>
<td>NMC1317H</td>
<td>Modern Hebrew Prose</td>
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<tr>
<td>NMC1318H</td>
<td>Midreshei Halakha: Purity and Cultic Texts</td>
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<td>NMC1327H</td>
<td>Themes in Midreshic Literature</td>
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<tr>
<td>NMC1328H</td>
<td>Intertextuality: Tannaitic and Amoaric Literature</td>
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<tr>
<td>NMC1330H</td>
<td>Introduction to Modern Hebrew I</td>
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<tr>
<td>NMC1331H</td>
<td>Introduction to Modern Hebrew II (Prerequisite: NMC1330H.)</td>
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<tr>
<td>NMC1332H</td>
<td>Intermediate Modern Hebrew I (Prerequisites: NMC1300H, NMC1311H.)</td>
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<tr>
<td>NMC1333H</td>
<td>Intermediate Modern Hebrew II (Prerequisites: NMC1330H, NMC1331H, NMC1332H.)</td>
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<td>NMC1334H</td>
<td>Advanced Modern Hebrew I (Prerequisites: NMC1330H, NMC1331H, NMC1332H, NMC1333H.)</td>
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<tr>
<td>NMC1335H</td>
<td>Advanced Modern Hebrew II (Prerequisites: NMC1330H, NMC1331H, NMC1332H, NMC1333H, NMC1334H.)</td>
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<td>Law in Ancient Judaism</td>
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<tr>
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<td>Advanced Modern Hebrew I (Prerequisites: NMC1330H, NMC1331H, NMC1332H, NMC1333H.)</td>
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<td>Advanced Modern Hebrew II (Prerequisites: NMC1330H, NMC1331H, NMC1332H, NMC1333H, NMC1334H.)</td>
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**History**

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<tr>
<td>NMC1010H</td>
<td>Mesopotamian Society and Economy</td>
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<tr>
<td>NMC1020H</td>
<td>Ancient Mesopotamia I: Sumerians and Akkadians</td>
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<td>NMC1021H</td>
<td>Ancient Mesopotamia II: Assyrians and Babylonians</td>
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<td>NMC1022H</td>
<td>The Babylonian City</td>
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<td>NMC1023H</td>
<td>The Neo-Assyrian Empire</td>
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<tr>
<td>NMC2080H</td>
<td>Theory and Method in Middle Eastern Studies</td>
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<tr>
<td>NMC2081H</td>
<td>Anthropology of the Middle East</td>
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<tr>
<td>NMC2090Y</td>
<td>The Prophet and the Caliphas: Early Islamic History to 1258</td>
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<tr>
<td>NMC2117H</td>
<td>Readings in Medieval Arabic Chronicles</td>
</tr>
<tr>
<td>NMC2129H</td>
<td>Arabic Manuscript Studies (Prerequisite: NMC2101Y or NML211Y or equivalent.)</td>
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<tr>
<td>NMC2160H</td>
<td>Hadith and the Study of Traditions in Islamic History</td>
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**Islamic Art and Material Culture**

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<th>Course Code</th>
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<tr>
<td>NMC2530H</td>
<td>New Approaches to 'Islamic Art'</td>
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<tr>
<td>NMC2531H</td>
<td>The Mosque: Readings in Architecture, Law, and Authority in Muslim Context</td>
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<tr>
<td>NMC2541Y</td>
<td>Medieval Middle Eastern Ceramics</td>
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**Topics in Law and Religion**

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<tr>
<td>NMC1607H</td>
<td>Life Cycle and Personal Status Issues in Jewish Law</td>
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<tr>
<td>NMC1608H</td>
<td>Gender Issues in Jewish Law</td>
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**Linguistics**

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<td>NMC1654H</td>
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### Persian Studies

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<tr>
<td>NMC2200Y</td>
<td>Introductory Persian</td>
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<tr>
<td>NMC2201Y</td>
<td>Intermediate Persian</td>
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<tr>
<td>NMC2202H</td>
<td>Modern Persian Poetry (Prerequisite: NMC2201Y.)</td>
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<tr>
<td>NMC2203H</td>
<td>Structural Development of Iranian Languages (Prerequisite: NMC2201Y.)</td>
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<tr>
<td>NMC2204Y</td>
<td>Avestan</td>
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<td>NMC2205Y</td>
<td>Middle Persian (Pahlavi)</td>
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<td>NMC2206H</td>
<td>Old Persian (Exclusion: NMC2206Y.)</td>
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<td>Old Persian</td>
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<td>NMC2207H</td>
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<td>NMC2208H</td>
<td>Advanced Persian II</td>
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<td>NMC2219H</td>
<td>Persian Literature: The Epic Tradition</td>
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<td>NMC2220H</td>
<td>Persian Literature: Ethical, Erotic, Mystical</td>
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<td>NMC2221H</td>
<td>Persian Mirrors for Princes</td>
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<td>NMC2223H</td>
<td>The Persian Manuscript Tradition</td>
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<td>NMC2224H</td>
<td>The Visionary Tales of Suhrawardi, Master of Illuminationist Philosophy</td>
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<td>NMC2225Y</td>
<td>History of Iran: From the Sasanians to the Safavids</td>
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<td>NMC2227H</td>
<td>Zoroastrian Cosmic History: From Genesis to Universal Judgment</td>
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<td>NMC2228H</td>
<td>Zoroastrian Apocalyptic Literature: To the Netherworld and Beyond</td>
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<td>NMC2229H</td>
<td>Persians, Greeks, and Romans: Friendly Enemies</td>
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<tr>
<td>NMC2234H</td>
<td>Safavid Iran: Reign of the Shahs (Exclusion: NMC2225Y.)</td>
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### Turkish and Ottoman Studies

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<td>NMC2300Y</td>
<td>Introductory Turkish</td>
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<tr>
<td>NMC2301Y</td>
<td>Intermediate Turkish</td>
</tr>
<tr>
<td>NMC2302Y</td>
<td>Advanced Turkish (with Introduction to Ottoman Turkish)</td>
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<tr>
<td>NMC2311H</td>
<td>The Rise of the Ottomans (Exclusion: NMC2310Y.)</td>
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<tr>
<td>NMC2312H</td>
<td>The Ottoman Empire in its Classical Age (Exclusion: NMC2310Y.)</td>
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<td>NMC2320H</td>
<td>Modern Turkey</td>
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<td>NMC2330Y</td>
<td>Readings in Ottoman Historical Texts</td>
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<td>NMC2331Y</td>
<td>Ottoman Palaeography and Diplomatics</td>
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### Other Courses

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<td>Directed Reading</td>
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<td>NMC2000Y</td>
<td>Directed Reading</td>
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<td>NMC2001H</td>
<td>Directed Reading and Research</td>
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<td>NMC2001Y</td>
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<td>NMC2002H</td>
<td>Topics in Near and Middle Eastern Civilizations</td>
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<tr>
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<td>NMC2003Y</td>
<td>Topics in Near and Middle Eastern Civilizations</td>
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<tr>
<td>NMC2075H</td>
<td>Graduate Research for MAs</td>
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<tr>
<td>NMC2085H</td>
<td>Methods in Medieval Middle East History</td>
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### Religion and Philosophy

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>NMC1613H</td>
<td>Religion in the Ancient Near East (PhD students in Near and Middle Eastern Civilizations excluded.)</td>
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<tr>
<td>NMC2045Y</td>
<td>Islamic Philosophical Texts</td>
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<tr>
<td>NMC2055H</td>
<td>The Qur'an and Its Interpretation</td>
</tr>
</tbody>
</table>
Overview

The Lawrence Bloomberg Faculty of Nursing is committed to student-centred learning that encompasses the principles of empowerment, engagement, discovery, diversity, equity, and knowledge transformation for nursing practice.

Students have opportunities to engage with expert clinicians, scientists, and theorists and have access to a variety of interprofessional and interdisciplinary experiences with other health profession Faculties, the University, and community partners. These resources enable students to develop their intellectual capacity; their research, critical thinking, judgment abilities; and skills required to be exemplar nurses, advanced practice nurses, leaders, scientists, scholars, and educators.

Contact and Address

Web: bloomberg.nursing.utoronto.ca
Email: ask.nursing@utoronto.ca
Telephone: (416) 978-8727
Fax: (416) 978-8222

Graduate Department of Nursing Science
University of Toronto
Suite 130, 155 College Street
Toronto, Ontario M5T 1P8
Canada

Nursing Science: Graduate Faculty

Full Members

Chu, Charlene - BSc, BScN, MN, PhD
Cleverley, Kristin - BN, MSN, PhD
Colelia, Tracey J.F. - MSc, PhD
Conway, Aaron - PhD
Cranley, Lisa - BScN, MN, PhD
Dale, Craig - BSc, PhD
Dennis, Cindy-Lee - BScN, MSN, PhD
Gastaldo, Denise - BSN, MA, PhD
Grundy, Quinn - BScN, PhD
Hillan, Edith - MPH, MSc, PhD
Jibb, Lindsay - PhD
Johnston, Linda - BSc, PhD (Dean)
Mayo, Samantha - BSc, MN, PhD
McGillis, Linda - BHA, MSN, PhD
McGilton, Kathy - BScN, MN, PhD
Metcalfe, Kelly - BNSc, PhD (Associate Dean, Research and External Relations)
Muntaner, Carles - MHSc, MD, PhD
Nelson, Sioban - PhD
Parry, Monica - BScN, MSc, MEd, PhD
Peter-Hardtke, Elizabeth - BA, BSN, MSN, PhD
Puts, Martine - BN, MHSc, PhD
Stinson, Jennifer - BScN, MSc, PhD
Stremler, Robyn - BSc, MAsc, PhD, RN (Dean)
Widger, Kimberley - BScN, MN, PhD (Acting Associate Dean, Academic)

Members Emeriti

Donner, Gail - PhD
Pringle, Dorothy - BScN, MS, PhD
Stevens, Bonnie - BSc, MSN, PhD
Associate Members

Acorn, Michelle - BSN, MN, PhD
Andrews, Martine - MN, PhD
Bedard, Philippe - BA, MD
Chenery-Hogan, Nicole - MSc
Chernenko, Susan - BN, MN
Innis, Jennifer - BAA, MA, MA, PhD
Janes, Nadine - BScN, MSc, PhD
Keilty, Krista - BN, MN, PhD
Kirenko, Will - BScN, MSN
Lalonde, Michelle - MN, PhD
Lam, Ray - MED
Louis, Joanne - BSN, MS, MN
Mednikov Shcharinsky, Alina - MN
Mehta, Sangeeta - MD
Mohammed, Shan - BScN, MN, PhD
O'Brien, Karel - BCh, MBCHB, MBCHB
Price, Jennifer - AB, BNSc, MSN, PhD
Richards, Joy - BScN, MN, PhD
Salami, Kolawole, Bukola - MSN
Thomson, Nadia - BScN, MN
Thomson, Heather - BScN, BScN, MN
Trip, Katherine - BScN, MN, MN
Velonis, Alisa Joy - PhD
Wilson, Jean - BScN, MHSc
Wong, David - MD

Nursing Science: Nursing Science MN

Master of Nursing

Program Description

The MN program prepares advanced nurses with specialized knowledge, skills, and expertise in a defined area of nursing. The program offers three fields: Clinical Nursing; Health Systems Leadership and Administration; and Nurse Practitioner.

Field: Clinical Nursing

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Nursing Science's additional admission requirements stated below.
- Applicants must hold the BScN degree of the University of Toronto or an equivalent degree. Applicants must have obtained at least a mid-B standing in the final year of undergraduate study and, in addition, must have obtained at least a B standing in the next-to-final year.
- Applicants must hold current registration as a Registered Nurse or equivalent.
- For further information about applying, please email connect.nursing@utoronto.ca or visit the Nursing website.

Program Requirements

- To qualify for the degree, students shall complete a program of study outlined by the Graduate Department of Nursing Science.
- Coursework. The MN program requires 5.0 full-course equivalents (FCEs) as follows:
  o NUR1170H, NUR1171H, NUR1174H, NUR1175H, NUR1176H, and NUR1177H;
  o a 1.0 FCE practicum-based course (NUR1179Y), which should be taken alone in the final session and only after completion of all other coursework and program requirements;
  o two elective field of study courses (1.0 FCE). One of these two field of study courses may be selected from outside the Faculty of Nursing.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

Field: Health Systems Leadership and Administration

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Nursing Science's additional admission requirements stated below.
- Applicants must hold the BScN degree of the University of Toronto or an equivalent degree. Applicants must have obtained at least a mid-B standing in the final year of undergraduate study and, in addition, must have obtained at least a B standing in the next-to-final year.
- Applicants must hold current registration as a Registered Nurse or equivalent and must have a minimum of two years (3,900 hours) of full-time (or equivalent) experience as a Registered Nurse.
- For further information about applying, please email connect.nursing@utoronto.ca or visit the Nursing website.

Program Requirements

- To qualify for the degree, students shall complete a program of study outlined by the Graduate Department of Nursing Science.
- Coursework. The MN program requires 5.0 full-course equivalents (FCEs) including:
  o NUR1016H, NUR1027H, NUR1127H, NUR1151H, NUR1152H, NUR1156H, NUR1157H, and NUR1161H;
  o a 1.0 FCE practicum-based course (NUR1169Y), which should be taken alone in the final session and only after completion of all other coursework and program requirements.
- This field of study is offered in a hybrid learning format including online and required on-campus, in-class learning.
There are two required on-campus learning periods: one embedded in NUR1151H in Year 1 and the second embedded in NUR1169Y in Year 2. Courses are prescribed and normally students progress through the program within a defined student cohort. Normally, successful completion of Year 1 courses is required for students to enter Year 2 of their program.

- **Year 1** course sequencing:
  - Fall — NUR1156H and NUR1027H
  - Winter — NUR1127H and NUR1151H*
  - Summer — NUR1152H*
- **Year 2** course sequencing:
  - Fall — NUR1016H and NUR1161H
  - Winter — NUR1157H
  - Summer — NUR1169Y*

*NUR1151H and NUR1169Y both include a required on-campus, in-class learning experience. NUR1152H and NUR1169Y include a required practicum component and required eLearning activities.

**Program Length**

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

**Time Limit**

3 years full-time

**Field: Nurse Practitioner**

Admissions to the emphasis in Paediatric have been administratively suspended.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Nursing Science's additional admission requirements stated below.
- Applicants must hold the BScN degree of the University of Toronto or an equivalent degree. Applicants must have obtained at least a mid-B standing in the final year of undergraduate study and, in addition, must have obtained at least a B standing in the next-to-final year.
- Applicants must hold current registration as a Registered Nurse or equivalent and must have a minimum of two years (3,900 hours) of full-time (or equivalent) experience as a Registered Nurse.
- For further information about applying, please email connect.nursing@utoronto.ca or visit the Nursing website.

**Program Requirements**

- To qualify for the degree, students shall complete a program of study outlined by the Graduate Department of Nursing Science.
- **Coursework.** The MN program requires 5.5 full-course equivalents (FCEs), including:
  - NUR1094H, NUR1095H, NUR1097H, and NUR1138H;
  - a combination of courses based on the student's emphasis:
    - Adult: NUR1101H; NUR1115H; NUR1140H; NUR1141H; NUR1215H; and NUR1221Y or
    - Paediatric*: NUR1102H; NUR1116H and NUR1216H; NUR1144H; NUR1145H; and NUR1222Y or
    - Primary Health Care — Global Health: NUR1114H; NUR1117H and NUR1217H; NUR1142H; NUR1143H; and NUR1223Y
    - NUR1221Y, NUR1222Y, and NUR1223Y must be taken alone in the final session and only after completion of all other coursework and program requirements.

This field of study is offered in a hybrid learning format including online and required on-campus, in-class learning.

*The Paediatric emphasis is available to students every other year. Visit the Nursing website for details.

**Nursing Science: Nursing Science DN**

**Doctor of Nursing**

**Program Description**

The Doctor of Nursing (DN) is a professional doctoral program designed to prepare nurses with the required skills to apply knowledge in diverse settings and (a) lead in dynamic, fast-paced, technologically advanced and sophisticated health-care environments and (b) teach in nursing education. Students will engage in advanced education related to leadership and knowledge application in health-care or nursing education.

The DN is offered in a hybrid online (required courses) and on-site (required residencies) delivery model. Students will normally complete this full-time program in eight sessions compressed over three years due to cohort-based delivery and extensive use of the Summer sessions.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Nursing Science's additional admission requirements stated below.
- Applicants must have a master's degree in nursing or a closely related field, such as education, public health, health science, health policy, or business administration, with a minimum B+ standing from a recognized university.
- Applicants must hold current registration as a Registered Nurse and must have a minimum of two years of relevant health-care leadership experience or advanced nursing education teaching experience.
- Applicants must provide three reference letters: two work-related and one academic.
Applicants must submit a letter of intent outlining their reasons for applying to the program and a proposed thesis project.

Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction and examination is not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. An interview may be required.

Program Requirements

- Students must successfully complete a total of **5.0 full-course equivalents (FCEs)** as follows:
  - coursework (4.0 FCEs):
    - 1.5 required FCEs: NUR1301H, NUR1302H, and NUR1303H
    - 0.5 elective FCE relevant to the student's focus: NUR1331H, NUR1332H, NUR1333H, NUR1334H, or NUR1335H
    - 2.0 FCEs in seminar courses: NUR1311H, NUR1312H, NUR1313H, and NUR1314H.
  - internships (1.0 FCE):
    - 0.5 FCE: NUR1398H DN Internship 1 (Credit/No Credit) normally completed in the Summer session of Year 1.
    - 0.5 FCE: NUR1399H DN Internship 2 (Credit/No Credit) normally completed in the Fall session of Year 2.

- **Residencies.** Students must complete three residencies consisting of intensive on-campus classes.

- **Symposium.** In the final session, students will present their thesis and discuss knowledge transfer and exchange plans for implementing their innovations in practice, policy, and/or education.

- **Literature review paper.** Students must demonstrate their ability to review, analyze, and synthesize relevant material by the end of the third session (Year 1). The paper includes published and peer-reviewed research, gray literature, policies, guidelines, etc.

- **Thesis.** Students must complete a written thesis proposal by the end of the fifth session (Year 2). The thesis requires students to identify and investigate a practice problem, articulate and apply theory and evidence to the problem, design strategies for action to address the problem, report on strategies implemented to address the problem, and discuss the results and knowledge dissemination plan.

- **Doctoral Final Oral Examination (FOE).** Students must complete an FOE of the thesis by the end of the final session in Year 3.

Program Length

- 4 years

Time Limit

- 6 years

Nursing Science: Nursing Science PhD

Doctor of Philosophy

Program Description

The full-time PhD program prepares scientists with the required analytical and research skills to study nursing, health systems, or other related problems.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master’s degree; or 2) transfer from the University of Toronto MN program.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies.
- Applicants must also satisfy the Graduate Department of Nursing Science's additional admission requirements stated below. Applicants must have a master's degree or its equivalent in nursing or related field with at least a B+ standing from a recognized university.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- For further information about admissions, please contact the Graduate Department of Nursing Science.

Program Requirements

- Students must successfully complete a minimum of **3.0 full-course equivalents (FCEs)** that include:
  - PhD Seminar (1.0 FCE):
    - NUR1081H (0.5 FCE, Credit/No Credit). Students attend the seminar biweekly for the Fall and Winter of Year 1.
    - NUR1082H (0.5 FCE, Credit/No Credit). Students attend the seminar weekly for the Fall and Winter of Year 2.
  - Research methods course NUR1079Y *Research Methods for Knowledge Discovery* (1.0 FCE)
  - one course (0.5 FCE) related to the substantive area of study and thesis plans
  - one course (0.5 FCE) may be either a method or substantive area course as determined by the student and the supervisory committee.

- Students must attain a minimum average standing at the B+ level for required courses.
- Students are normally expected to complete all required courses (3.0 FCEs) by the end of Year 2. If all required courses are not successfully completed (with a minimum average standing at the B+ level) by the end of Year 3, the
Faculty of Nursing will normally make a recommendation to SGS for termination of registration.

Literature Review Paper

Successful completion of the literature review paper.

- The literature review paper topic as well as type and format of the literature review paper must be approved by the supervisor (with signed documentation by the student and supervisor) by March 1 of Year 1. This agreement should specify the problem statement, the format/type of literature review that is appropriate to the area of study, and to the scholarly traditions within which the student's research is situated.

- The literature review paper must be submitted by September 30 of Year 2. The submitted literature review paper will be formally reviewed and evaluated by the supervisor and at least one additional thesis committee member. Written and verbal feedback about the submitted literature review paper will be provided to the student at a supervisory committee meeting. For the literature review paper to be considered a pass, both faculty members' assessments of the literature review paper must be at the **successful completion or pass level**. If both examinations are considered pass, the student may receive either a **satisfactory** or **excellent** rating at their supervisory committee meeting. If one or both paper reviews are rated unsatisfactory or not pass, then the student receives an **unsatisfactory** rating at the supervisory committee meeting.

- If the student does not successfully complete the literature review paper first submitted, the student will have one additional opportunity to revise and rewrite the literature review paper, based on the feedback received at the supervisory committee. The student must resubmit the revised literature review paper by December 1 of Year 2. This revised literature review paper must be formally evaluated by the supervisor and one other thesis committee member (normally the same committee member who completed the assessment of the original literature review paper). The student will receive feedback about the revised literature review paper at a supervisory committee meeting. For the literature review to be considered a pass, both faculty members' assessments of the literature review paper must be at the **pass level**. If both reviews are considered pass, the student may receive either a **satisfactory** or **excellent** rating at their supervisory committee meeting. If one or both reviews are rated **failure/not pass**, then the student receives an **unsatisfactory** rating at the supervisory committee meeting.

- If the student does not successfully complete the literature review paper on the second attempt, the Faculty of Nursing will normally recommend to SGS that the student's registration in the PhD program be terminated.

Thesis Proposal

Successful defence of the thesis proposal, normally by the end of Year 2.

- Students are normally expected to defend their thesis proposal by the end of Year 2 of their program. Students must successfully defend their thesis proposal no later than the end of Year 3. The format of the proposal will be similar to that of a modified tri-council grant application. Assessment of the thesis proposal consists of both the written proposal and the oral defence of the proposal. Students who do not successfully defend the proposal after the first attempt may have one additional opportunity to successfully present and defend the written proposal, and this must be accomplished before the end of Year 3 of the program.

- If the student does not successfully defend the thesis proposal by the end of Year 3 (including a second attempt, if required), the Faculty of Nursing will recommend to SGS that the student's registration in the PhD program be terminated.

- The student's dissertation will be defended in the Doctoral Final Oral Examination of the School of Graduate Studies.

Program Length

4 years full-time; 5 years transfer-from-master's

Time Limit

6 years full-time; 7 years transfer-from-master's

Nursing Science: Nursing Science PMNP Diploma

Post-Master's Nurse Practitioner (PMNP) Diploma

Admissions to the emphasis in Paediatric have been administratively suspended.

Program Description

The PMNP Diploma provides students holding an appropriate graduate degree the opportunity to develop the knowledge and skills required to practise as a nurse practitioner. Students choose one of the following emphases: Adult, Paediatric, or Primary Health Care — Global Health.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Nursing Science's additional admission requirements stated below.

- Applicants to the Post-Master's Nurse Practitioner (PMNP) diploma program must have completed a master's degree in nursing or an equivalent graduate degree that includes clinical nursing experience and a minimum of two years of clinical nursing experience.

- Preference is given to applicants who have one or more years in an advanced nursing practice role (in addition to clinical experience) and support within their employment setting.

- Applicants must hold current registration as a Registered Nurse or equivalent.

Program Requirements

All students in the PMNP diploma program are required to complete a total of 3.5 full-course equivalents (FCEs) as follows:
- Emphasis: Adult
  - NUR1101H Advanced Health Assessment and Clinical Reasoning (Adult)
  - NUR1115H Advanced Health Assessment and Therapeutic Management (Adult) 1
  - NUR1140H Pathophysiology and Pharmacotherapeutics 1 (Adult)
  - NUR1141H Pathophysiology and Pharmacotherapeutics 2 (Adult)
  - NUR1215H Advanced Health Assessment and Therapeutic Management (Adult) 2
  - NUR1221Y Nurse Practitioners: Roles and Issues (Adult)
- Emphasis: Paediatric
  - NUR1102H Advanced Health Assessment and Clinical Reasoning (Paediatric)
  - NUR1116H Advanced Health Assessment and Therapeutic Management (Paediatric) 1
  - NUR1144H Pathophysiology and Pharmacotherapeutics 1 (Paediatric)
  - NUR1145H Pathophysiology and Pharmacotherapeutics 2 (Paediatric)
  - NUR1216H Advanced Health Assessment and Therapeutic Management (Paediatric) 2
  - NUR1222Y Nurse Practitioners: Roles and Issues (Paediatric)
- Emphasis: Primary Health Care — Global Health
  - NUR1114H Advanced Health Assessment and Clinical Reasoning (Primary Health Care — Global Health)
  - NUR1117H Advanced Health Assessment and Therapeutic Management (Primary Health Care — Global Health) 1
  - NUR1142H Pathophysiology and Pharmacotherapeutics 1 (Primary Health Care — Global Health)
  - NUR1143H Pathophysiology and Pharmacotherapeutics 2 (Primary Health Care — Global Health)
  - NUR1217H Advanced Health Assessment and Therapeutic Management (Primary Health Care — Global Health) 2
  - NUR1223Y Nurse Practitioners: Roles and Issues (Primary Health Care — Global Health)
- NUR1221Y, NUR1222Y, and NUR1223Y must be taken alone in the final session and only after completion of all other coursework and program requirements.
- In each emphasis, four courses require learners to be engaged in clinical practice.

Program Length
6 sessions (2 years) part-time

Time Limit
6 years part-time

Nursing Science: Nursing Science MN, DN, PhD, Diploma Courses

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>NUR1016H</td>
<td>Health Systems, Policy, and the Profession</td>
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<tr>
<td>NUR1021H</td>
<td>Nursing Ethics</td>
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<tr>
<td>NUR1024H</td>
<td>Foundations of Qualitative Inquiry</td>
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<tr>
<td>NUR1025H</td>
<td>Doing Qualitative Research: Design and Data Collection</td>
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<tr>
<td>NUR1027H</td>
<td>Integrated Approaches to Research Appraisal and Utilization Part 1</td>
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<tr>
<td>NUR1030H</td>
<td>Principles of Leadership and Advanced Clinical Practice in Emergency Preparedness</td>
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<tr>
<td>NUR1036H</td>
<td>Advanced Nursing Practice in Oncology</td>
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<tr>
<td>NUR1038H</td>
<td>Social Determinants of Health in a Global Context</td>
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<tr>
<td>NUR1040H</td>
<td>Issues in Women's Health Care</td>
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<td>NUR1045H</td>
<td>Theories of Pain: Impact on the Individual, Family, and Society</td>
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<tr>
<td>NUR1046H</td>
<td>Persistent Illness: Theoretical, Research, and Practice Implications</td>
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<tr>
<td>NUR1047H</td>
<td>Community Participation and Health</td>
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<td>NUR1050H</td>
<td>Coping With Illness</td>
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<tr>
<td>NUR1057H</td>
<td>Interventions to Enhance Health, Abilities, and Well-being</td>
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<tr>
<td>NUR1059H</td>
<td>Technology, Digital Health, and Informatics for Advanced Practice Nursing</td>
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<tr>
<td>NUR1062H</td>
<td>Measuring Nursing Care Effectiveness: Economic and Financial Perspectives</td>
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<tr>
<td>NUR1067H</td>
<td>Mental Health Topics in Advanced Practice Nursing</td>
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<tr>
<td>NUR1074H</td>
<td>Facilitating Topics in Advanced Practice Nursing</td>
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<tr>
<td>NUR1075H</td>
<td>Introductory Statistics for Health Sciences Research</td>
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<tr>
<td>NUR1076H</td>
<td>Intermediate Statistics for Health Sciences Research</td>
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<tr>
<td>NUR1077H</td>
<td>Implementation Science in Healthcare (Prerequisite: NUR1027H or equivalent)</td>
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<tr>
<td>NUR1079Y</td>
<td>Research Methods for Knowledge Discovery</td>
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<tr>
<td>NUR1081H*</td>
<td>PhD Student/Faculty Seminar 1 (Credit/No Credit)</td>
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<tr>
<td>NUR1081Y</td>
<td>PhD Student/Faculty Seminars</td>
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<tr>
<td>NUR1082H*</td>
<td>PhD Student/Faculty Seminar 2 (Credit/No Credit; prerequisite: NUR1081H)</td>
</tr>
<tr>
<td>NUR1083H</td>
<td>Comparative Politics of Health Policy in Globalizing World</td>
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<tr>
<td>NUR1085H</td>
<td>Topics in Critical Perspectives in Health and Health Care</td>
</tr>
<tr>
<td>NUR1086H</td>
<td>Nursing Health Services Research Methods</td>
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<tr>
<td>NUR1087H</td>
<td>Foundations of Clinical Research</td>
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<tr>
<td>NUR1094H</td>
<td>Research Design, Appraisal, and Utilization: Nurse Practitioner</td>
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<tr>
<td>NUR1095H</td>
<td>Introduction to Qualitative Research: Methodologies, Appraisal, and Knowledge Translation: Nurse Practitioner</td>
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<tr>
<td>NUR1097H</td>
<td>Program Planning and Evaluation in Nursing: Nurse Practitioner (Prerequisite: NUR1094H)</td>
</tr>
<tr>
<td>NUR1101H</td>
<td>Advanced Health Assessment and Clinical Reasoning (Adult) (Prerequisite: NUR1140H and NUR1141H)</td>
</tr>
<tr>
<td>NUR1102H</td>
<td>Advanced Health Assessment and Clinical Reasoning (Paediatric) (Prerequisite: NUR1144H and NUR1145H)</td>
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<tr>
<td>NUR1114H</td>
<td>Advanced Health Assessment and Clinical Reasoning (Primary Health Care — Global Health) (Prerequisite: NUR1142H and NUR1143H)</td>
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<tr>
<td>NUR1115H</td>
<td>Advanced Health Assessment and Therapeutic Management (Adult) 1 (Prerequisites: NUR1101H, NUR1140H, NUR1141H)</td>
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<tr>
<td>NUR1117H</td>
<td>Advanced Health Assessment and Therapeutic Management (Primary Health Care — Global Health) 1 (Prerequisites: NUR1114H, NUR1142H, NUR1143H)</td>
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<tr>
<td>NUR1127H</td>
<td>Integrated Approaches to Research Appraisal and Utilization Part 2 (Prerequisite: NUR1027H)</td>
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<tr>
<td>NUR1138H</td>
<td>Global Health Topics for Nurse Practitioners</td>
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<tr>
<td>NUR1140H</td>
<td>Pathophysiology and Pharmacotherapeutics 1 (Adult)</td>
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<td>NUR1142H</td>
<td>Pathophysiology and Pharmacotherapeutics 1 (Primary Health Care — Global Health)</td>
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<td>NUR1145H</td>
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<tr>
<td>NUR1151H</td>
<td>Theories and Concepts in Nursing Leadership and Administration</td>
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<tr>
<td>NUR1152H</td>
<td>Leading and Managing Effective Health Care Teams</td>
</tr>
<tr>
<td>NUR1156H</td>
<td>History of Ideas in Nursing Practice: Health Systems Leadership and Administration</td>
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<tr>
<td>NUR1157H</td>
<td>Program Planning and Evaluation in Nursing: Health Systems Leadership and Administration</td>
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<tr>
<td>NUR1161H</td>
<td>Advanced Concepts in Leadership and Administration (Prerequisites: NUR1151H, NUR1152H)</td>
</tr>
<tr>
<td>NUR1169Y</td>
<td>Advanced Nursing Practice Scholarship: Health Systems Leadership and Administration</td>
</tr>
<tr>
<td>NUR1170H</td>
<td>Introduction to Advanced Practice Nursing</td>
</tr>
<tr>
<td>NUR1171H</td>
<td>Topics in Advanced Practice Nursing</td>
</tr>
<tr>
<td>NUR1174H</td>
<td>Research Design, Appraisal, and Utilization: Clinical</td>
</tr>
<tr>
<td>NUR1175H</td>
<td>Introduction to Qualitative Research: Methodologies, Appraisal, and Knowledge Translation: Clinical</td>
</tr>
<tr>
<td>NUR1176H</td>
<td>History of Ideas in Nursing Practice: Clinical</td>
</tr>
<tr>
<td>NUR1177H</td>
<td>Program Planning and Evaluation in Nursing: Clinical (Prerequisite: NUR1174H)</td>
</tr>
<tr>
<td>NUR1179H</td>
<td>Advanced Nursing Practice Scholarship: Clinical</td>
</tr>
<tr>
<td>NUR1215H</td>
<td>Advanced Health Assessment and Therapeutic Management (Adult) 2 (Prerequisites: NUR1101H, NUR1115H, NUR1140H, NUR1141H)</td>
</tr>
<tr>
<td>NUR1217H</td>
<td>Advanced Health Assessment and Therapeutic Management (PHC GH) 2 (Prerequisites: NUR1114H, NUR1117H, NUR1140H, NUR1141H)</td>
</tr>
<tr>
<td>NUR1221Y</td>
<td>Nurse Practitioners: Roles and Issues (Adult) (Prerequisites: NUR1101H, NUR1115H, NUR1140H, NUR1141H, NUR1215H)</td>
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<tr>
<td>NUR1222Y</td>
<td>Nurse Practitioners: Roles and Issues (Paediatric) (Prerequisites: NUR1102H, NUR1116H, NUR1144H, NUR1145H, NUR1216H)</td>
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<tr>
<td>NUR1223Y</td>
<td>Nurse Practitioners: Roles and Issues (Primary Health Care — Global Health) (Prerequisites: NUR1114H, NUR1117H, NUR1142H, NUR1143H, NUR1217H)</td>
</tr>
<tr>
<td>NUR1301H</td>
<td>Leadership: Health Services and Education</td>
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<tr>
<td>NUR1302H</td>
<td>Implementation Science: Health Services and Education</td>
</tr>
<tr>
<td>NUR1303H</td>
<td>Policy and Politics in Nursing Practice and Education</td>
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<tr>
<td>NUR1311H</td>
<td>DN Seminar 1 (Credit/No Credit)</td>
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<tr>
<td>NUR1312H</td>
<td>DN Seminar 2 (Credit/No Credit; prerequisite: NUR1311H)</td>
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<tr>
<td>NUR1313H</td>
<td>DN Seminar 3 (Credit/No Credit; prerequisite: NUR1312H)</td>
</tr>
<tr>
<td>NUR1314H</td>
<td>DN Seminar 4 (Credit/No Credit. Must be taken in the final session of the DN program. All other DN courses must be completed prior to enrolment in NUR1314H.)</td>
</tr>
<tr>
<td>NUR1331H</td>
<td>Analysis and Application of Individual and Population Health Data</td>
</tr>
<tr>
<td>NUR1332H</td>
<td>Informatics and Technologies for Practice Advancement</td>
</tr>
<tr>
<td>NUR1333H</td>
<td>Equity and Ethics in Healthcare Leadership</td>
</tr>
<tr>
<td>NUR1334H</td>
<td>Quality Improvement, Safety, and Evaluation Science</td>
</tr>
<tr>
<td>NUR1335H</td>
<td>The Scholarship of Teaching and Learning in Healthcare Practice and Education</td>
</tr>
<tr>
<td>NUR1398H</td>
<td>DN Internship 1 (Credit/No Credit)</td>
</tr>
<tr>
<td>NUR1399H</td>
<td>DN Internship 2 (Credit/No Credit; prerequisite: NUR1398H)</td>
</tr>
</tbody>
</table>
Nutritional Sciences

Nutritional Sciences: Introduction

Faculty Affiliation

Medicine

Degree Programs

Nutritional Sciences

MSc and PhD

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Food Studies**
  - Nutritional Sciences, MSc, PhD

- **Global Health (U of T Scholar)**
  - Nutritional Sciences, PhD

- **Public Health Policy**
  - Nutritional Sciences, MSc, PhD

- **Women's Health**
  - Nutritional Sciences, MSc, PhD

- **Toxicology**
  - Nutritional Sciences, MSc, PhD

Overview

The Department of Nutritional Sciences is one of the few departments of nutrition in North America to be located within a Faculty of Medicine. This, together with its close linkages with the University of Toronto’s Dalla Lana School of Public Health, allows the department to fully explore the relationships between nutrition and human health and disease, and to influence clinical practice and public health programs. It also creates unique opportunities for collaboration with the highest concentration of University-affiliated hospitals, clinicians, and health researchers in North America.

Although the department is centered in the Basic Sciences sector of the Faculty, its activities include not only basic science but also clinical and community aspects of nutrition and food and nutrition policy. These activities that range from "bench to bedside to populations" make it a model of integration within the whole of the health sciences complex at U of T, enabling a full exploration of the relationships between nutrition and human health to influence both clinical practice and public health policy.

Applicants interested in pursuing a Master of Public Health degree in Nutrition and Dietetics are advised to consult the calendar entry of the Dalla Lana School of Public Health for details.

Contact and Address

Web: nutrisci.med.utoronto.ca
Email: grad.nutrisci@utoronto.ca
Telephone: (416) 978-6071
Fax: (416) 978-5882

Department of Nutritional Sciences
Temerty Faculty of Medicine, University of Toronto
Medical Sciences Building, 5th Floor, Room 5253A
1 King's College Circle, Toronto, Ontario, Canada M5S 1A8

Nutritional Sciences: Graduate Faculty

Full Members

- Allard, Johane - MD
- Anderson, Harvey - BSc, MSc, PhD
- Bandsma, Robert - MD
- Bazinet, Richard - BSc, PhD *(Acting Chair and Graduate Chair; Associate Chair, Research and Innovation)*
- Boyd, Norman - MD
- Comelli, Elena - MSc, PhD *(Graduate Coordinator, Admissions and Awards)*
- Courtney-Martin, Glenda - BASc, MSc, PhD
- El-Sohemy, Ahmed - BSc, MSc, PhD
- Hamilton, Jill - BSc, MSc, MD
- Hanley, Anthony - BSc, MSc, PhD *(Associate Chair, Graduate Education)*
- Jenkins, David Ja - BA, MA, MD, MB, BS, PhD
- Kim, Young-In - MD
- Kotsopoulos, Joanne - BSc, MSc, PhD
- L'Abbé, Mary - BSc, MSc, PhD
- Leiter, Lawrence - BSc, MD
- Ma, David - BSc, PhD
- Maguire, Jonathon - BSc, MSc, MSc, MD
- Narod, Steven - BSc, MD
- O'Connor, Deborah - BASc, MS, PhD *(Chair and Graduate Chair)*
- Pencharz, Paul - MD, MB, ChB
- Roth, Daniel - BSc, MSc, MD
- Sellen, Daniel - BA, AM, PhD
- Sherman, Philip - MD
- Sievenpiper, John - BASc, MFS, MD, PhD
- Tarasuk, Valerie - BA, BEd, BASc, MSc, PhD
- Tomlinson, Christopher - BSc, MBCHB, PhD
- Vuksan, Vladimir - BSc, MSc, PhD
- Ward, Wendy - BASc, MSc, PhD
- Zlotkin, Stanley - BSc, MD, PhD

Members Emeriti

- Bruce, Robert - BSc, LMCC, MSc, MD, PhD
- Jeejeebhoy, Khursheed - MB, PhD
- Krondl, Maria - BSc, PhD
- Rao, A. Venketeshwer - BSc, MSc, PhD
- Thompson, Lilian - BSc, MSc, PhD
- Wolever, Thomas - BA, MSc, MA, BM, BCh, PhD

Associate Members

- Arcand, Jo Anne - BSc, MSc, PhD
- Asztalos, Elizabeth - BScN
- Ball, Ronald - BSc, MSc, PhD
- Birken, Catherine - MSc, MD
Nutritional Sciences: Nutritional Sciences

MSc

Program Description

The aim of the MSc program is to develop the student's abilities to conceptualize research problems in the area of human nutrition, synthesize ideas and approaches in the research problem, analyze and interpret data, transmit his or her findings to peers, and expand his or her knowledge in, and perspective of, the field of human nutrition. Thus, major emphasis is placed on the research project and thesis.

The MSc program can be taken on a full-time or part-time basis. A limited number of students are admitted to the program on a part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Students with diverse backgrounds are encouraged to apply. Applicants must also satisfy the Department of Nutritional Sciences' additional admission requirements stated below.
- A- standing in the final two years of a bachelor's degree program or evidence of strong potential as a researcher.
- Program Requirements
  - Coursework. Students must complete 2.0 full-course equivalents (FCEs) as follows:
    - participation in NFS1204Y Master's Seminars in Nutritional Sciences (1.0 FCE) throughout their period of full-time registration and
    - a minimum of two half courses (1.0 FCE).
  - For students with undergraduate training in nutritional sciences, at least one of these courses must be taken in the department. Students with undergraduate training in disciplines other than nutritional sciences must take at least two half courses from the department.
  - A course in statistical methods or research design and analysis is required if not completed previously.
  - Thesis on an approved research area and its defence at an oral examination.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

PhD

Program Description

The aim of the PhD program is to develop the student's abilities to conceptualize research problems in the area of human nutrition, synthesize ideas and approaches in the research problem, analyze and interpret data, transmit their findings to peers, and expand their knowledge in, and perspective of, the field of human nutrition. Thus, major emphasis is placed on the research project and thesis.

Applicants may enter the PhD program via one of three routes: 1) following completion of an MSc degree; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion a bachelor's degree.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies.
- Applicants must also satisfy the Department of Nutritional Sciences' additional admission requirements stated below.
- Applicants may enter the PhD program with an appropriate MSc degree with at least an A– standing or evidence of strong potential as a researcher.

Program Requirements

- Coursework. Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  - NFS1304Y Doctoral Seminars in Nutritional Sciences (1.0 FCE; Credit/No Credit);
  - a minimum of four half courses (2.0 FCEs).
- The courses will be chosen by each student to provide an appropriate background for their area of investigation. It is expected that all students will have an adequate knowledge of research design and statistics through coursework in their past or the current graduate program. The choice of courses will be made in consultation with the supervisor and the student's advisory committee and is subject to the approval of the department.
- Successful completion of a PhD qualifying examination in nutritional sciences is required by the end of Year 1 of registration in the program. The examination is designed to ensure that students have developed a rigorous and comprehensive research proposal in a timely fashion. The oral examination is approximately two hours long, is graded as pass/fail, and takes place approximately nine months following initial registration. The examination will be
Applicants must:

- **Transfer Requirements**
  - Be enrolled in the U of T MSc program in Nutritional Sciences. Excellent students with high academic standing (normally a minimum A– average on MSc courses) who have clearly demonstrated the ability to do research at the doctoral level may be considered for transfer to the PhD program. Recommendation of the advisory committee is required.
  - Successfully complete a reclassification transfer exam within 12 months of starting the MSc program; this includes successfully defending a research proposal during a reclassification oral examination.
  - Successfully complete the required MSc courses:
    - NFS1204Y0 Master's Seminars in Nutritional Sciences (1.0 full-course equivalent [FCE]; Credit/No Credit); and
    - two other half courses (1.0 FCE).

Program Requirements

- **Coursework.** Students must complete successfully complete a total of 4.0 FCEs as follows:
  - NFS1304Y0 Doctoral Seminars in Nutritional Sciences (1.0 FCE; Credit/No Credit);
  - a minimum of six half courses (3.0 FCEs) including the two half courses taken during Year 1 of the MSc program.
- For a student who is reclassified from the MSc to the PhD, the intent is that all requirements of the normal MSc (except the thesis) plus all requirements of the PhD shall be completed. There is no priori reduction of course requirements and no expectation that the course requirements to be completed in the PhD will be any different than would hold if the student completed the MSc and then enrolled in the PhD.
- A PhD qualifying exam is **not** required for students transferring from the MSc program.
- **Thesis.**
  - Students must pass the departmental examination before proceeding to the Doctoral Final Oral Examination.
  - The **residence** requirement is three years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.
  - It is expected that students can complete their PhD within five years of full-time study, research, and thesis preparation; however, some students may require longer.

Program Length

- 4 years full-time
- 5 years full-time

Time Limit

- 6 years full-time
- 7 years full-time

PhD Program (Transfer)

Applicants may be accepted into the PhD program via transfer from the U of T Nutritional Sciences MSc program. Students are required to be in good academic standing.

Transfer Requirements

Applicants must:

- Be enrolled in the U of T MSc program in Nutritional Sciences. Excellent students with high academic standing (normally a minimum A– average on MSc courses) who have clearly demonstrated the ability to do research at the doctoral level may be considered for transfer to the PhD program. Recommendation of the advisory committee is required.
- Successfully complete a reclassification transfer exam within 12 months of starting the MSc program; this includes successfully defending a research proposal during a reclassification oral examination.
- Successfully complete the required MSc courses:
  - NFS1204Y0 Master's Seminars in Nutritional Sciences (1.0 full-course equivalent [FCE]; Credit/No Credit); and
  - two other half courses (1.0 FCE).

Program Requirements

- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  - NFS1304Y0 Doctoral Seminars in Nutritional Sciences (1.0 FCE; Credit/No Credit);
  - a minimum of six half courses (3.0 FCEs).
- The courses will be chosen by each student to provide an appropriate background for their area of investigation. It is expected that all students will have an adequate knowledge of research design and statistics through coursework in their past or the current graduate program. The choice of courses will be made in consultation with the supervisor and the student's advisory committee and is subject to the approval of the department.
- Successful completion of a **PhD qualifying examination** in nutritional sciences is required within the first 18 months of registration in the program. The examination is designed to ensure that students have developed a rigorous and comprehensive research proposal in a timely fashion. The
oral examination is approximately two hours long, is graded as pass/fail, and takes place approximately nine months following initial registration. The examination will be conducted by the PhD Qualifying Examination Committee consisting of two faculty members appointed by the department and two faculty members chosen by the student. A student who fails the first attempt at the exam will be permitted one more attempt. Failure of the second attempt will result in a recommendation for program termination.

- Thesis.
- Student must pass the departmental examination before proceeding to the Doctoral Final Oral Examination.
- The residence requirement is three years, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.
- It is expected that students can complete their PhD within five years of full-time study, research, and thesis preparation; however, some students may require longer.

Program Length

5 years

Time Limit

7 years

Course that may continue over a program. Credit is given when the course is completed.

Nutritional Sciences: Nutritional Sciences
MSc, PhD Courses

Not all courses are offered every year. Please consult the department regarding course offerings.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>NFS1201H</td>
<td>Public Health Nutrition</td>
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<td>NFS1204Y</td>
<td>Master’s Seminars in Nutritional Sciences (Credit/No Credit)</td>
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<tr>
<td>NFS1212H</td>
<td>Regulation of Food Composition, Health Claims, and Safety</td>
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<tr>
<td>NFS1216H</td>
<td>Selected Topics in Nutrition</td>
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<tr>
<td>NFS1218H</td>
<td>Recent Advances in Nutritional Sciences I</td>
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<tr>
<td>NFS1220H</td>
<td>Clinical Nutrition</td>
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<tr>
<td>NFS1222H</td>
<td>Recent Advances in Nutritional Sciences II: Diet and Cardiovascular</td>
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<tr>
<td>NFS1223H</td>
<td>Dietary Carbohydrate and Glycaemic Index in Health and Disease</td>
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<tr>
<td>NFS1224H</td>
<td>Nutritional Epidemiology</td>
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<tr>
<td>NFS1226H</td>
<td>Nutrition and Cancer</td>
</tr>
<tr>
<td>NFS1301H</td>
<td>Directed Reading in Nutritional Sciences</td>
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</tbody>
</table>
Occupational Science and Occupational Therapy

Occupational Science and Occupational Therapy: Introduction

Faculty Affiliation
Medicine

Degree Programs

Occupational Therapy

MScOT

Collaborative Specializations

The following collaborative specialization is available to students in the participating degree program as listed below:

- **Women's Health**
  - Occupational Therapy, MScOT

Overview

The Department of Occupational Science and Occupational Therapy is committed to providing graduate and continuing education programs that enable occupational therapists to be leaders in research, clinical practice, and the promotion of health and well-being. Core and clinical faculty members provide dynamic, evidence-based, and comprehensive instruction and mentorship. Graduates are innovative professionals focused on enabling occupation and enhancing health and well-being.

Since September 2018, the MScOT is offered both at the St. George (downtown Toronto) campus and at the University of Toronto Mississauga (UTM) campus. Applicants will have an opportunity to indicate their preferred campus. Campus preferences will be considered but they are not guaranteed.

Contact and Address

Web: [ot.utoronto.ca](http://ot.utoronto.ca)
Email: [ot.reception@utoronto.ca](mailto:ot.reception@utoronto.ca)
Telephone: (416) 946-8571
Fax: (416) 946-8570

Department of Occupational Science and Occupational Therapy
University of Toronto
Room 160, 500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Occupational Science and Occupational Therapy: Graduate Faculty

Full Members

Agur, Anne - BSc, MSc, PhD
Astell, Arlene - BSc, PhD
Cameron, Jill - BSc, MS, PhD
Colantonio, Angela - BA, BSc(OT), MHSc, PhD
Colquhoun, Heather - PhD
Forhan, Mary - BSc(OT), MHSc, PhD (Chair and Graduate Chair)
Hamdani, Yani - MA, PhD
King, Gillian - BA, MA, PhD
Lindsay, Sally - BA, MA, PhD
Mihailidis, Alex - BASc, MSc, PhD
Nalder, Emily - BOTh, PhD
Rappolt, Susan - BSc(OT), MSc, PhD
Renwick, Rebecca - DipOT, BA, PhD
Wang, Rosalie - BSc, BSc(OT), PhD

Members Emeriti

Dawson, Deirdre - BSc, MSc, PhD
Friedland, Judith - BA, MA, PhD
Kirsh, Bonnie - BSc(OT), MEd, PhD
Mckee, Pat McKee - DipOT, BSc(OT), MSc
Polatajko-Howell, Helene J. - PhD
Reid, Denise - BSc(OT), MEd, PhD

Associate Members

Barker, Donna - BSc(OT), MSc
Cockburn, Lynn - BSc(OT), BCom, MEd, MPH, PhD
Davis, Jane - BSc, BSc(OT), MSc
Duncan, Andrea - BSc(OT), MBA, PhD
Eftekhar, Parvin - BSc(OT), MSc, PhD
Farragher, Janine - PhD
Farrow, Susan - BSc(OT), BA
Fourt, Anne - BSc(OT), MEd
Hitzig, Sander - PhD
Kokorelias, Kristina M - MSc, PhD
Langlois, Sylvia - BSc, MSc
Mansfield, Elizabeth - MSc, PhD
Markoulakis, Roula - MSc, PhD
Mollayeva, Tatyana - MD, PhD
Munce, Sarah - BSc, MSc, PhD
Novak, Alison - MSc, PhD
Nowrouz-Kia, Behdin - BSc, MSc
Reel, Kevin - BSc(OT), MSc
Rotenberg, Shlomit - PhD
Rowland, Paula - BS, BS
Sangrar, Ruheena - MSc, PhD
Singh, Hardeep - MSc, PhD
Stier, Jill - MA, BMedSc
Vasquez, Brandon - BS, MA, PhD
Wasilewski, Manna B. - BSc, MSc, PhD
Occupational Science and Occupational Therapy: Occupational Therapy MScOT

Master of Science in Occupational Therapy

Program Description

The MScOT program prepares students in advanced academic and professional knowledge and applied research skills for leadership in occupational therapy practice. The program emphasizes the application of theory and research evidence to clinical practice through rigorous studies in occupational therapy and research production and utilization.

Graduates are eligible to write the certification examination of the Canadian Association of Occupational Therapists, a requirement for registration with the College of Occupational Therapists of Ontario and most other professional regulatory colleges in Canada. Practice in another country generally requires the graduate to pass the licensing requirement specific to that country. Graduates are eligible to:

- practise independently in a variety of roles, such as consultants and case managers, and in a range of settings, such as acute care, interdisciplinary programs, private practice, and primary health care;
- supervise rehabilitation assistants, OT aides, or other support workers;
- use principles of research-based practice to guide and evaluate service delivery;
- contribute to research that will advance the knowledge base of the discipline;
- assume management roles;
- take leadership roles in the profession;
- take leadership roles in health care and other sectors including social services, education, and labour;
- fill academic-practitioner positions; and
- pursue doctoral studies and careers in academia or clinical research.

The MScOT program is offered as a two-year full-time program. Admissions to the one-year, advanced-standing part-time option have been suspended.

MScOT Program (24-Month Full-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Occupational Science and Occupational Therapy's additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with high academic standing and a mid-B average or better in the final year of study.
- To determine initial ranking only, the department will review the last 10.0 full-course equivalents (FCEs) completed at the undergraduate level by the application deadline.
- Applicants must complete the Casper test online. Casper is an online open-response situational judgement test designed to evaluate problem-solving skills as well as personal and professional characteristics such as communication, ethics, and empathy. Applicants must register to take the test and have their results sent to the MScOT program ahead of the application deadline. Find the set dates to write for different programs. Applicants can submit for disability-related testing accommodations and fee assistance.
- Apply online using the Ontario Rehabilitation Sciences Programs Application Service (ORPAS). Applications are accepted around October each year, with a deadline near the end of December or early January. Exact deadlines are posted on the ORPAS website and in the ORPAS Instruction Booklet.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must provide proof of English proficiency by March 1 of the year of application. See General Regulations, section 4.3 English-Language Proficiency in this calendar for general information and acceptable tests. The department strongly prefers the Test of English as a Foreign Language (TOEFL) and requires a minimum score of:
  - 600 on the paper-based test, accompanied by a minimum score of 5 on the Test of Written English (TWE)
  - 100/120 on the Internet-based test with 22/30 on the speaking section and 22/30 on the writing section.
- TOEFL candidates should request that results be sent to institution code 0982.
- Visit the Occupational Therapy and ORPAS websites for additional information regarding application document submissions (e.g., confidential assessment forms, resumé, personal statement submission).

Program Requirements

- The MScOT is a two-year, 24-course (19.0 FCE) program of continuous, full-time study.
- Students begin their studies in September and complete six consecutive sessions, with a range of four to six concurrent courses in each session.
- There are four full-time block fieldwork components within the program of study.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

MScOT Program (12-Month, Advanced-Standing Part-Time Option)

Admissions to the advanced-standing option have been suspended.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Occupational Science and Occupational Therapy's additional admission requirements stated below.
• A bachelor's degree in occupational therapy from a recognized university with high academic standing and a mid-B average or better in the final year of study.
• Applicants must be registered, or eligible for registration, for independent practice as an occupational therapist in Canada with a provincial regulating body.
• Apply online using the SGS online application system. Applications are accepted approximately in mid-February each year, with a deadline approximately at the end of March (subject to change).
• Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must provide proof of English proficiency by March 1 of the year of application. See General Regulations, section 4.3 English-Language Proficiency in this calendar for general information and acceptable tests. The department strongly prefers the Test of English as a Foreign Language (TOEFL) and requires a minimum score of:
  o 600 on the paper-based test, accompanied by a minimum score of 5 on the Test of Written English (TWE)
  o 100/120 on the Internet-based test with 22/30 on the speaking section and 22/30 on the writing section.
  TOEFL candidates should request that results be sent to institution code 0982.
• Visit the Occupational Therapy website for additional information regarding application document submissions (e.g., reference letters, résumé, personal statement submission).

Program Requirements

• The advanced-standing option is a three-consecutive-session, part-time program of study beginning in September. Students must complete 3.5 full-course equivalents (FCEs): OCT1111Y, OCT1122Y*, and OCT1220Y⁰.
• Students complete the advanced-standing option in an online environment with a mandatory one-week, on-campus residency.
• For more information about the application process, tuition, and supervision, etc., please visit the Occupational Science and Occupational Therapy website.

Program Length

3 sessions part-time (typical registration sequence: F/W/S)

Time Limit

3 years part-time

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
⁰ Course that may continue over a program. The course is graded when completed.

Occupational Science and Occupational Therapy: Occupational Therapy MScOT Courses

Required Courses for the 24-Month Full-Time Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCT1100H⁰</td>
<td>Applied Skills and Technology: Human Factors and Design in Occupational Therapy</td>
</tr>
<tr>
<td>OCT1111Y</td>
<td>Occupational Science: Foundations for Occupational Therapy</td>
</tr>
<tr>
<td>OCT1122Y*</td>
<td>Research Approaches and Methods in Occupational Therapy</td>
</tr>
<tr>
<td>OCT1131Y</td>
<td>Professional Practice I and Introduction to Fieldwork</td>
</tr>
<tr>
<td>OCT1132H</td>
<td>Occupational Therapy Practice II</td>
</tr>
<tr>
<td>OCT1141H</td>
<td>Assessment in Occupational Therapy</td>
</tr>
<tr>
<td>OCT1152Y</td>
<td>Musculo-Skeletal Foundations for Occupational Therapy Practice</td>
</tr>
<tr>
<td>OCT1162Y</td>
<td>Mental Health Foundations for Occupational Therapy Practice</td>
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<tr>
<td>OCT1172Y*</td>
<td>Neurological Foundations for Occupational Therapy Practice</td>
</tr>
<tr>
<td>OCT1183Y</td>
<td>Occupational Therapy Fieldwork I</td>
</tr>
<tr>
<td>OCT1190⁰</td>
<td>Mentorship and Interprofessional Education</td>
</tr>
<tr>
<td>OCT1193H</td>
<td>Enabling Occupation Across the Life Course</td>
</tr>
<tr>
<td>OCT1220Y⁰</td>
<td>Graduate Research Project (1.5 FCEs)</td>
</tr>
<tr>
<td>OCT1233H</td>
<td>Occupational Therapy Practice III</td>
</tr>
<tr>
<td>OCT1236H</td>
<td>Transition to Occupational Therapy Practice</td>
</tr>
<tr>
<td>OCT1251H</td>
<td>Enabling Occupation with Children: Part I</td>
</tr>
<tr>
<td>OCT1252H</td>
<td>Enabling Occupation with Children: Part II</td>
</tr>
<tr>
<td>OCT1261H</td>
<td>Enabling Occupation with Adults: Part I</td>
</tr>
<tr>
<td>OCT1262Y</td>
<td>Enabling Occupation with Adults: Part II</td>
</tr>
<tr>
<td>OCT1271H</td>
<td>Enabling Occupation with Older Adults: Part I</td>
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<tr>
<td>OCT1272H</td>
<td>Enabling Occupation with Older Adults: Part II</td>
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<tr>
<td>OCT1281Y</td>
<td>Occupational Therapy Fieldwork II</td>
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<tr>
<td>OCT1282Y*</td>
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<tr>
<td>OCT1283Y</td>
<td>Occupational Therapy Fieldwork IV</td>
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## Required Courses for the 12-Month, Advanced-Standing Part-Time Option

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>OCT1111Y</td>
<td>Occupational Science: Foundations for Occupational Therapy</td>
</tr>
<tr>
<td>OCT1122Y</td>
<td>Research Approaches and Methods in Occupational Therapy</td>
</tr>
<tr>
<td>OCT1220Y</td>
<td>Graduate Research Project</td>
</tr>
</tbody>
</table>

₀ *Course that may continue over a program. The course is graded when completed.*

⁺ *Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*
Pharmaceutical Sciences

Pharmaceutical Sciences: Introduction

Faculty Affiliation
Pharmacy

Degree Programs

Pharmaceutical Sciences

MSc and PhD

- Fields:
  - Biomolecular Pharmaceutical Sciences;
  - Clinical, Social, and Administrative Pharmaceutical Sciences

Pharmacy

MScPhm

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Addiction Studies
  - Pharmaceutical Sciences, MSc, PhD
- Aging, Palliative and Supportive Care Across the Life Course
  - Pharmaceutical Sciences, MSc, PhD
- Bioethics
  - Pharmaceutical Sciences, MSc, PhD
- Biomedical Engineering
  - Pharmaceutical Sciences, MSc, PhD
- Cardiovascular Sciences
  - Pharmaceutical Sciences, MSc, PhD
- Global Health (U of T Global Scholar)
  - Pharmaceutical Sciences, MSc, PhD
- Health Services and Policy Research
  - Pharmaceutical Sciences, MSc, PhD
- Neuroscience
  - Pharmaceutical Sciences, MSc, PhD
- Next-Generation Precision Medicine
  - Pharmaceutical Sciences, PhD
- Toxicology
  - Pharmaceutical Sciences, MSc, PhD

Overview

Pharmaceutical sciences encompasses all aspects of the discovery, development, administration, distribution, and utilization of therapeutic drugs, and the nature, functioning, and dysfunctioning of the biological systems with which drugs interact. As a global leader in pharmaceutical research, the Leslie Dan Faculty of Pharmacy is home to some of the most prominent and distinguished experts in the area of pharmaceutical sciences. The department is centrally located in the heart of Toronto’s Health Sciences Discovery District. Students have the opportunity to conduct their research in collaboration with a wide range of departments at the University of Toronto and nearby world-class teaching hospitals and research institutes to solve some of health science’s most pressing problems.

A degree in Pharmaceutical Sciences can lead to a variety of career opportunities. Graduates have found employment in academia, the pharmaceutical industry, government, community or hospital pharmacy, consulting, and other businesses.

The Graduate Department of Pharmaceutical Sciences offers research opportunities and courses in two fields of study:

- Biomolecular Pharmaceutical Sciences: drug receptor interactions, molecular biology, electrophysiology, biochemistry, clinical, adverse drug reactions, drug metabolism; pharmaceutical and medicinal chemistry, pharmaceutical formulations, radiopharmaceutical synthesis, drug discovery, biophysical chemistry, basic pharmacokinetics, and clinical research;
- Clinical, Social, and Administrative Pharmaceutical Sciences: bioethics, clinical pharmacy, drug policy, drug safety, global health and corruption, health economics, health policy, health services research, pedagogy, pharmacoeconomics, pharmacoepidemiology, pharmacy administration, pharmacy practice, social pharmacy, and social psychology.

Contact and Address

Web: pharmacy.utoronto.ca/programs/graduate-department-pharmaceutical-sciences
Email: phm.grad@utoronto.ca
Telephone: (416) 978-8896
Fax: (416) 978-8511

Graduate Department of Pharmaceutical Sciences
Leslie Dan Faculty of Pharmacy
University of Toronto
144 College Street
Toronto, Ontario M5S 3M2
Canada

Pharmaceutical Sciences: Graduate Faculty

Full Members

Allen, Christine - BSc, PhD, PhD
Angers, Stéphane - BSc, PhD
Austin, Zubin - BA, BScPhm, MBA, MISt, MEd, PhD (Academic Director, Centre for Practice Excellence)
Bendayan, Reina - DP
Bonin, Robert - PhD
Boon, Heather - PhD
Cadarette, Suzanne - BSc, MSc, PhD (Graduate Coordinator)
Chalikian, Tigran - PhD
Crandall, Ian - BSc, MSc, PhD
Cummins, Carolyn - BSc, PhD (Director, Graduate Department of Pharmaceutical Sciences)
Dolovich, Lisa - MSc (Dean)
Dupuis, Lee - BSc, BScPhm, MPHarm, PhD
Grootendorst, Paul - BA, MEc, PhD
Guilcher, Sara - BSc, MSc, MSc(PT), PhD
Hampson, David - PhD
Heerklotz, Heiko - PhD
Henderson, Jeffrey - PhD
Ito, Shinya - MD, BM
Kelley, Shana - BA, PhD
Kohler, Jillian - BA, MA, PhD
Kotra, Lakshmi - BSc, BPhm, PhD, PhD
Lee, Ping - BSChE, PhD
Macgregor, Robert - BS, PhD
MacKeigan, Linda - BScPhm, PhD
Mamdani, Muhammad - DP
McCarthy, Lisa - BScPhm, MSc, DP
Pang, Sandy - BSc, PhD
Papadimitropoulos, Emmanuel - BSc, BScPhm, MScPhm, PhD
Pennefather, Peter - BSc, PhD
Piquette-Miller, Micheline - BScPhm, PhD (Associate Dean, Research)
Reilly, Raymond - BSc, BSc, MSc, PhD (Director, Centre for Pharmaceutical Oncology)
Sproule, Beth - BScPhm, DP
Taddio, Anna - BScPhm, MScPhm, PhD
Thompson, Alison - BA, MA, PhD
Uetrecht, Jack - BSc, MSc, MD, PhD
Weaver, Donald F. - BSc, MD, PhD
Wells, James - BSc, MSc, PhD
Wells, Peter - BScPhm, DP
Wu, Shirley X.Y. - PhD
Zheng, Gang - MSc, PhD

Associate Members

Aman, Ahmed - PhD
Ballantyne, Peri - BA, MA, PhD
Battistella, Marisa - BScPhm, DP
Chen, Eric - MD
Crown, Natalie - BScPhm, DP, DP
Daneman, Nick - BA, MD
De Angelis, Carlo - DP
Dubins, David - BSc, PhD
Kertland, Heather - BScPhm
Kim, Sandra - MSc, MD
Lexchin, Joel - BSc, MSc, MD
Li, Bowen - BScPhm, PhD
Nevo, Ori - MD
Perlis, Nathan - BA, MS, MD, FRSC
Rochon, Paula - MD
Steenhof, Naomi - BPhm, DPhil
Sun, Hong-Shuo - MSc, DrMed, DPhil
Swidrovich, Jaris - BSP, DP
Tadrous, Mina - MS, DP, PhD

Pharmaceutical Sciences: Pharmaceutical Sciences MSc

Master of Science

Program Description

The Graduate Department of Pharmaceutical Sciences at the Leslie Dan Faculty of Pharmacy offers students in the physical, biological, clinical, health, and social sciences a challenging and rewarding research-intensive program leading to the MSc degree. The result is an educational program that encourages multidisciplinary approaches to problem-solving and collaboration between students and faculty members. Graduate students are immersed in a challenging program that equips them with new ways of thinking and provides them with multiple tools to solve problems.

The MSc program can be taken on a full-time or part-time basis. Admission and program requirements are the same for the full-time and part-time options. A limited number of students will be admitted to the part-time option.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Pharmaceutical Sciences' additional admission requirements stated below.
- An appropriate bachelor's degree from a recognized university with at least a mid-B average in each of the last two years of undergraduate study.
- The Pharmaceutical Sciences Graduate Admissions Committee considers the applicant's background and accomplishments, academic standing, and financial support from the potential supervisor.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination is not English, must demonstrate facility in the English language through the successful completion of one of the following English-language proficiency tests:
  - Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - paper-based TOEFL: 600 and 5 on the Test of Written English (TWE)
    - Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
  - International English Language Testing System (IELTS): a score of 7.0 (Academic) with at least 6.5 in each component.
  - The Certificate of Proficiency in English (COPE): a score of 76, with at least 22 in each component and 32 in the writing component.
  - Academic Preparation Course: a final grade of B in Level 60.
- If the undergraduate degree was not obtained from a recognized Canadian or US university, the applicant must write and achieve scores at the 50th percentile ranking or better on the Graduate Record Examination (GRE; General Test).

Program Requirements

- The MSc is a program of study that provides the appropriate foundation for thesis research. The program depends on the student's background and is planned in consultation with the supervisor and advisory committee, with the approval of the graduate director(s).
- Coursework. Students must successfully complete a minimum of 1.0 full-course equivalent (FCE).
- Yearly advisory committee meetings.
- Attend at least one research ethics workshop (0.0 FCE) for graduate students.
- One poster presentation to all faculty and graduate students at Graduate Research in Progress (GRIP).
- Annual attendance at GRIP.
- Regular attendance at a minimum of eight Pharmaceutical Sciences departmental seminars as well as student group seminars for two years (or less if all other program requirements are completed).
• An annual oral presentation of the student's own research work is given in the student seminar series.
• Final seminar to be given during the thesis defence.
• A thesis based on an approved research problem in an area of pharmaceutical sciences.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
14 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Pharmaceutical Sciences: Pharmaceutical Sciences PhD

Doctor of Philosophy

Program Description

The Graduate Department of Pharmaceutical Sciences offers a challenging and rewarding research-intensive program leading to the PhD degree. Students in the program are immersed in pharmaceutical sciences, working, and collaborating with world-renowned researchers while gaining profound depth and experience in their area of study.

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate master's degree; 2) transfer from the University of Toronto's Pharmaceutical Sciences MSc program; or 3) direct entry following completion of an appropriate bachelor's degree. Direct-entry admission spaces are limited.

PhD Program

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Pharmaceutical Sciences' additional admission requirements stated below.
• Appropriate master's degree from a recognized university with a minimum overall B+ average.
• The Pharmaceutical Sciences Graduate Admissions Committee considers the applicant's background and accomplishments, academic standing, and financial support from the potential supervisor.
• Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination is not English, must demonstrate facility in the English language through the successful completion of one of the following English-language proficiency tests:
  o Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  • paper-based TOEFL: 600 and 5 on the Test of Written English (TWE)
  • Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
  o International English Language Testing System (IELTS): a score of 7.0 (Academic) with at least 6.5 in each component.
  o The Certificate of Proficiency in English (COPE): a score of 76, with at least 22 in each component and 32 in the writing component.
  o Academic Preparation Course: a final grade of B in Level 60.
• If the undergraduate degree was not obtained from a recognized Canadian or US university, the applicant must write the Graduate Record Examination (GRE; General Test) and achieve scores at the 50th percentile ranking or better on the Verbal and Quantitative components and a minimum score of 5.0 on the Analytical Writing component.

Program Requirements

• The PhD is a program of study that provides the appropriate foundation for thesis research. The program depends on the student's background and is planned in consultation with the supervisor and advisory committee, as well as with the approval of the graduate director(s).
• Coursework. Students normally complete 2.0 full-course equivalents (FCEs) within the first three years of registration.
• Yearly advisory committee meetings.
• Successful completion of a PhD qualifying examination within the first 24 months of the program. Students are permitted a second attempt, if necessary, to satisfactorily complete the examination. The format of the examination will include the student giving a 20-minute presentation based on the proposal distributed to the Qualifying Examination Committee, followed by a question period. The student is expected to demonstrate appropriate understanding of the scientific basis of the research, the methodological approaches, and the technical details. Failure to successfully complete the PhD qualifying examination will result in a recommendation for termination of registration in the program.
• Attend at least one research ethics workshop (0.0 FCE) for graduate students. Students who completed this requirement while registered in the MSc program are not required to attend a second workshop.
• One poster presentation to all faculty and graduate students at Graduate Research in Progress (GRIP).
• Annual attendance at GRIP.
• Regular attendance at a minimum of eight Pharmaceutical Sciences departmental seminars as well as student group seminars in each academic year for four years (or less if all other program requirements are completed).
• An annual oral presentation of the student's own research work is given in the student seminar series.
• An open final oral presentation (50 minutes long) immediately prior to a closed thesis defence.
• A thesis in conformity with University of Toronto regulations, based on research conducted while registered in a PhD program at the University of Toronto.
• Students must be on campus and participate full-time (including Summer) until all program requirements are completed. Simultaneous registration in another full-time degree program is not allowed.
PhD Program (Transfer)

Transfer Requirements

- Students who have a high academic standing and a clearly demonstrated ability to do research at the doctoral level may be eligible to transfer to the PhD program after one year in the MSc program. The student must have completed at least 1.0 full-course equivalent (FCE) with an average grade of A– during Year 1 of the master's program and must have financial support.
- A transfer from the MSc program to the PhD program occurs normally within 15 to 18 months of the student's first registration in the MSc program.

Program Requirements

- Coursework. Students must successfully complete a total of 3.0 full-course equivalents (FCEs).
- Successful completion of the MSc to PhD transfer examination.
- The transferred student must complete all remaining course requirements of the MSc program, except the thesis, in addition to the requirements of the PhD program. Credit is given in the doctoral program for research and graduate courses completed prior to the transfer.
- Yearly advisory committee meetings.
- Attend at least one research ethics workshop (0.0 FCE) for graduate students. Students who completed this requirement while registered in the MSc program are not required to attend a second workshop.
- Two poster presentations to all faculty and graduate students at Graduate Research in Progress (GRIP), one of which may be at a peer-reviewed conference upon approval.
- Annual attendance at GRIP.
- Regular attendance at a minimum of eight Pharmaceutical Sciences departmental seminars as well as student group seminars in each academic year for four years (or less if all other program requirements are completed).
- An annual oral presentation of the student's own research work is given in the student seminar series.
- An open final oral presentation (50 minutes long) immediately prior to a closed thesis defence.
- A thesis in conformity with University of Toronto regulations, based on research conducted while registered in a PhD program at the University of Toronto.
- Students must be on campus and participate full-time (including Summer) until all program requirements are completed. Simultaneous registration in another full-time degree program is not allowed.

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Pharmaceutical Sciences' additional admission requirements stated below.
- Under exceptional circumstances, students may be admitted directly to the PhD program with an appropriate bachelor's degree from a recognized university with a minimum A– (80%) average, or its equivalent, in senior-level courses.
- The Pharmaceutical Sciences Graduate Admissions Committee considers the applicant's background and accomplishments, academic standing, and financial support from the potential supervisor.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination is not English, must demonstrate facility in the English language through the successful completion of one of the following English-language proficiency tests:
  - Test of English as a Foreign Language (TOEFL) with the following minimum scores:
    - paper-based TOEFL: 600 and 5 on the Test of Written English (TWE)
    - Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
  - International English Language Testing System (IELTS): a score of 7.0 (Academic) with at least 6.5 in each component.
  - The Certificate of Proficiency in English (COPE): a score of 76, with at least 22 in each component and 32 in the writing component.
  - Academic Preparation Course: a final grade of B in Level 60.
- If the undergraduate degree was not obtained from a recognized Canadian or US university, the applicant must write the Graduate Record Examination (GRE; General Test) and achieve scores at the 50th percentile ranking or better on the Verbal and Quantitative components and a minimum score of 5.0 on the Analytical Writing component.

Program Requirements

- The PhD is a program of study that provides the appropriate foundation for thesis research. The program depends on the student's background and is planned in consultation with the supervisor and advisory committee, as well as with the approval of the graduate chair.
- Coursework. Students must successfully complete a total of 3.0 full-course equivalents (FCEs).
- Yearly advisory committee meetings.
• Successful completion of a PhD qualifying examination within the first 24 months of the program. Students are permitted a second attempt, if necessary, to satisfactorily complete the examination. The format of the examination will include the student giving a 20-minute presentation based on the proposal distributed to the Qualifying Examination Committee, followed by a question period. The student is expected to demonstrate appropriate understanding of the scientific basis of the research, the methodological approaches, and the technical details. Failure to successfully complete the PhD qualifying examination will result in a recommendation for termination of registration in the program.

• Attend at least one research ethics workshop (0.0 FCE) for graduate students. Students who completed this requirement while registered in the MSc program are not required to attend a second workshop.

• Two poster presentation(s) to all faculty and graduate students at Graduate Research in Progress (GRIP), one of which may be at a peer-reviewed conference upon approval.

• Annual attendance at GRIP.

• Regular attendance at a minimum of eight Pharmaceutical Sciences departmental seminars as well as student group seminars in each academic year for four years (or less if all other program requirements are completed).

• An annual oral presentation of the student's own research work is given in the student seminar series.

• An open final oral presentation (50 minutes long) immediately prior to a closed thesis defence.

• A thesis in conformity with University of Toronto regulations, based on research conducted while registered in a PhD program at the University of Toronto.

• Students must be on campus and participate full-time (including Summer) until all program requirements are completed. Simultaneous registration in another full-time degree program is not allowed.

Program Length

5 years

Time Limit

7 years

PhD Program (Flexible-Time)

The department offers a flexible-time PhD program option for selected students. This program benefits professionals with career obligations and whose employment is closely related to their intended area of research. Applicants must meet all the admission requirements for entry to the full-time PhD program in Pharmaceutical Sciences. The program requirements for the flexible-time PhD option are identical to those for the full-time PhD program.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Pharmaceutical Sciences' additional admission requirements stated below.

• Appropriate master's degree from a recognized university with a minimum overall B+ average.

• The Pharmaceutical Sciences Graduate Admissions Committee considers the applicant's background and accomplishments, academic standing, and financial support from the potential supervisor.

• Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination is not English are required to write the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - paper-based TOEFL: 600 and 5 on the Test of Written English (TWE)
  - Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.

• If the undergraduate degree was not obtained from a recognized Canadian or US university, the applicant must write the Graduate Record Examination (GRE; General Test) and achieve scores at the 50th percentile ranking or better on the Verbal and Quantitative components and a minimum score of 5.0 on the Analytical Writing component.

• A letter of support from the employer.

• The departmental admissions committee reviews the applications; admission is highly selective with preference given to applicants who are members in good standing of a regulated profession or scientific society.

Program Requirements

• The PhD is a program of study that provides the appropriate foundation for thesis research. The program depends on the student's background and is planned in consultation with the supervisor and advisory committee, with the approval of the graduate chair.

• Coursework. Students normally complete a total of 2.0 full-course equivalents (FCEs).

• Yearly advisory committee meetings.

• Successful completion of a PhD qualifying examination within the first 32 months of the program. Students are permitted a second attempt, if necessary, to satisfactorily complete the examination. The format of the examination will include the student giving a 20-minute presentation based on the proposal distributed to the Qualifying Examination Committee, followed by a question period. The student is expected to demonstrate appropriate understanding of the scientific basis of the research, the methodological approaches, and the technical details. Failure to successfully complete the PhD qualifying examination will result in a recommendation for termination of registration in the program.

• Attend at least one research ethics workshop (0.0 FCE) for graduate students. Students who completed this requirement while registered in the MSc program are not required to attend a second workshop.

• One poster presentation, or two poster presentations by those without a master's degree, to all faculty and graduate students at Graduate Research in Progress (GRIP).

• Annual attendance at GRIP.

• Regular attendance at a minimum of eight Pharmaceutical Sciences departmental seminars as well as student group seminars in each academic year for four years.
Students whose current professional background is such that they would be deemed to have fulfilled a significant portion of the requirements contained in the department seminar series may be eligible for a reduction of four seminars upon consultation with the Director.

- An **annual oral presentation** of the student's own research work is given in the student seminar series.
- An **open final oral presentation** (50 minutes long) immediately prior to a **closed thesis defence**.
- A **thesis** in conformity with University of Toronto regulations, based on research conducted while registered in a PhD program at the University of Toronto.
- Students must ensure that they have adequate time on campus to attend classes and to fulfil the academic requirements.
- Full-time registration is required for the first four years and thereafter, students may register part-time.

**Program Length**

8 years

**Time Limit**

8 years

**Pharmaceutical Sciences: Pharmaceutical Sciences MSc, PhD Courses**

Please consult the department's [timetable for courses](#) offered in a given year.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>PHM1109H</td>
<td>Recent Developments in Dosage Form Design (prerequisite: PHM224Y or equivalent)</td>
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<tr>
<td>PHM1115H</td>
<td>Special Topics in Radiopharmaceuticals II</td>
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<tr>
<td>PHM1130H</td>
<td>Biomolecular Interactions and Thermodynamics I</td>
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<td>PHM1133H</td>
<td>Special Topics in Pharmaceutical Sciences Reading Course</td>
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<td>PHM1135H</td>
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<td>PHM1136H</td>
<td>Introduction to Biostatistics</td>
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<td>PHM1137H</td>
<td>Introduction to Qualitative Research Methods in the Health Sciences</td>
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<td>PHM1138H</td>
<td>Electronics for Pharmaceutics Applications</td>
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<td>PHM1139H</td>
<td>Diagnosing Corruption in the Health Sector and Anti-Corruption Policies and Tools</td>
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<tr>
<td>PHM1140H</td>
<td>Principles of Synthetic Biology</td>
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<tr>
<td>PHM1141H</td>
<td>Introduction to Education Theory, Practice and Scholarship</td>
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<tr>
<td>PHM1142H</td>
<td>Methods for Patient-Focused and Pharmacy Practice Research</td>
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<tr>
<td>PHM1143H</td>
<td>Advanced Pharmacy Practice Leadership</td>
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<tr>
<td>PHM1144H</td>
<td>Introduction to Mixed Methods for Health Services and Policy Research and Pharmaceutical Sciences</td>
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<tr>
<td>PHM1145H</td>
<td>Conducting Scoping Reviews within Health Services and Policy Research and Pharmaceutical Sciences</td>
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<tr>
<td>PHM1146H</td>
<td>Introduction to Linear Regression Models</td>
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<tr>
<td>PHM2100H</td>
<td>Pharmaceutical Sciences Module: Sciences in New Drugs and Biologics (0.25 FCE)</td>
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<tr>
<td>PHM2101H</td>
<td>Pharmaceutical Sciences Module: Precision in Vitro Diagnostics (0.25 FCE)</td>
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<tr>
<td>PHM2102H</td>
<td>Pharmaceutical Sciences Module: Introduction to Fundamentals of Drug Discovery Process (0.25 FCE)</td>
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<tr>
<td>PHM2103H</td>
<td>Pharmaceutical Sciences Module: Addictive Medications — Issues and Insights (0.25 FCE)</td>
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<td>PHM2104H</td>
<td>Pharmaceutical Sciences Module: Advances in Sensory Neuroscience (0.25 FCE)</td>
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<td>Pharmaceutical Sciences Module: Program Design and Evaluation in Pharmacy (0.25 FCE)</td>
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<td>PHM2106H</td>
<td>Pharmaceutical Sciences Module: Spectroscopy: Absorption and Fluorescence (0.25 FCE)</td>
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<tr>
<td>PHM2107H</td>
<td>Pharmaceutical Sciences Module: Organizational Theory and Human Resource Management in Pharmacy I (0.25 FCE)</td>
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<tr>
<td>PHM2108H</td>
<td>Pharmaceutical Sciences Module: Organizational Theory and Human Resource Management in Pharmacy II (prerequisite: PHM2107H) (0.25 FCE)</td>
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<td>PHM2109H</td>
<td>Clinical Pharmacology of Addictions (0.25 FCE)</td>
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<td>PHM2111H</td>
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<td>Current Topics in Molecular and Biochemical Toxicology</td>
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<td>Multidisciplinary Aspects of Addictions</td>
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<td>PPG2010H</td>
<td>Panel Data Methods for Public Policy Analysis</td>
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* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Pharmaceutical Sciences: Pharmacy MScPhm

Master of Science in Pharmacy

Program Description

The Master of Science in Pharmacy (MScPhm) program is designed to train future academic clinical pharmacist leaders. As members of patient care teams and as pharmacy practice researchers, graduates of the MScPhm program will influence the provision of pharmaceutical care at the patient and population level. As teachers, they will shape the development of current and future pharmacists.

Applicants may apply to the Fall session only.

MScPhm Program (Full-Time Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Pharmaceutical Sciences’ additional admission requirements stated below.
- Applicants must have status as a pharmacist, based on one of the following:
  - a bachelor's degree from a Canadian pharmacy program accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) or an American pharmacy program accredited by the Accreditation Council for Pharmacy Education (ACPE); or
  - a license to practise pharmacy (any Canadian jurisdiction); or
  - a bachelor's degree, or equivalent, from any international pharmacy school and successful completion of the Pharmacy Examining Board of Canada (PEBC) Evaluating Exam.
- Applicants with pharmacy practice experience, including completion of a Year 1 Pharmacy residency program, are preferred. Applicants must also have an equivalent of a University of Toronto B+ (77 to 79%) in the last two years of study and have identified a primary graduate supervisor for the program.

Program Requirements

- Each student's program will be tailored to suit the student's background and interests and will be planned in consultation with the supervisor and graduate advisory committee, with the approval of the graduate chair.
- Students must complete a minimum of 9.0 full-course equivalents (FCEs), including a clinical practicum (3.0 FCEs) and a research project (3.0 FCEs).
- Graduate advisory committee meetings will be held at minimum once each year.
- One poster presentation given to all faculty and graduate students at Graduate Research in Progress (GRIP).
- Annual attendance at GRIP.
- Regular attendance at the graduate departmental and student group seminars for two years.

- An annual oral presentation of the student’s own research work is given in the student seminar series.
- An oral presentation of the completed research work will be submitted and assessed at an oral examination.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

MScPhm Program (Part-Time Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Pharmaceutical Sciences’ additional admission requirements stated below.
- Applicants must have status as a pharmacist, based on one of the following:
  - a bachelor's degree from a Canadian pharmacy program accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) or an American pharmacy program accredited by the Accreditation Council for Pharmacy Education (ACPE); or
  - a license to practise pharmacy (any Canadian jurisdiction); or
  - a bachelor's degree, or equivalent, from any international pharmacy school and successful completion of the Pharmacy Examining Board of Canada (PEBC) Evaluating Exam.
- Applicants with pharmacy practice experience, including completion of a Year 1 Pharmacy residency program, are preferred. Applicants must also have an equivalent of a University of Toronto B+ (77 to 79%) in the last two years of study and have identified a primary graduate supervisor for the program.

Program Requirements

- Each student’s program will be tailored to suit the student’s background and interests and will be planned in consultation with the supervisor and graduate advisory committee, with the approval of the graduate chair.
- Students must complete a minimum of 9.0 full-course equivalents (FCEs), including a clinical practicum (3.0 FCEs) and a research project (3.0 FCEs).
- Graduate advisory committee meetings will be held at minimum once each year.
- One poster presentation given to all faculty and graduate students at Graduate Research in Progress (GRIP). Students will attend GRIP yearly.
- Regular attendance at the graduate departmental and student group seminars for four years.
- An annual oral presentation of the student’s own research work is given in the student seminar series.
- An oral presentation of the completed research work will be submitted and assessed at an oral examination.
**Program Length**

12 sessions part-time

**Time Limit**

6 years part-time

### Pharmaceutical Sciences: Pharmacy

**MScPhm Courses**

#### Required Foundational Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHM1145H</td>
<td>Conducting Scoping Reviews within Health Services and Policy Research and Pharmaceutical Sciences</td>
<td></td>
</tr>
<tr>
<td>AGE2000H</td>
<td>Principles of Aging</td>
<td></td>
</tr>
<tr>
<td>HAD5746H</td>
<td>Applied Health Econometrics II</td>
<td></td>
</tr>
<tr>
<td>JNP1014Y</td>
<td>Interdisciplinary Toxicology</td>
<td></td>
</tr>
<tr>
<td>JRH1000H</td>
<td>Introduction to Pharmacoepidemiology</td>
<td></td>
</tr>
<tr>
<td>JRH5124H</td>
<td>Public Health Ethics</td>
<td></td>
</tr>
<tr>
<td>PAS3700H</td>
<td>Multidisciplinary Aspects of Addictions</td>
<td></td>
</tr>
<tr>
<td>PCL1004Y</td>
<td>Clinical Pharmacology</td>
<td></td>
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</table>

#### Practica and Research Project

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHM8000Y</td>
<td>MScPhm Clinical Practicum I (Credit/No Credit; 1.5 FCEs.)</td>
<td></td>
</tr>
<tr>
<td>PHM8100Y</td>
<td>MScPhm Clinical Practicum II (Credit/No Credit; 1.5 FCEs. Corequisite: PHM8000Y.)</td>
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</tr>
<tr>
<td>PHM9000Y</td>
<td>MScPhm Research Practicum (Credit/No Credit; 3.0 FCEs. Corequisite: PHM1142H.)</td>
<td></td>
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</tbody>
</table>

#### Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHM1115H</td>
<td>Special Topics in Radiopharmaceuticals II</td>
</tr>
<tr>
<td>PHM1133H</td>
<td>Special Topics in Pharmaceutical Sciences Reading Course</td>
</tr>
<tr>
<td>PHM1136H</td>
<td>Introduction to Biostatistics</td>
</tr>
<tr>
<td>PHM1137H</td>
<td>Introduction to Qualitative Research Methods in the Health Sciences</td>
</tr>
<tr>
<td>PHM1138H</td>
<td>Electronics for Pharmaceutics Applications</td>
</tr>
<tr>
<td>PHM1144H</td>
<td>Introduction to Mixed Methods for Health Services and Policy Research and Pharmaceutical Sciences</td>
</tr>
</tbody>
</table>
Pharmacology and Toxicology

Pharmacology and Toxicology: Introduction

Faculty Affiliation

Medicine

Degree Programs

Pharmacology

MSc
- Field: Applied Clinical Pharmacology

PhD

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Addiction Studies**
  - Pharmacology, MSc, PhD

- **Cardiovascular Sciences**
  - Pharmacology, MSc, PhD

- **Musculoskeletal Sciences**
  - Pharmacology, MSc, PhD

- **Neuroscience**
  - Pharmacology, MSc, PhD

- **Resuscitation Sciences** (admissions have been administratively suspended)
  - Pharmacology, MSc, PhD

- **Toxicology**
  - Pharmacology, MSc, PhD

- **Women's Health**
  - Pharmacology, MSc, PhD

Overview

Faculty in the Department of Pharmacology and Toxicology conduct research in the following areas:

- biochemical and molecular pharmacology
- cardiovascular pharmacology
- clinical pharmacology
- drug addiction
- drug metabolism, distribution, and pharmacokinetics
- endocrine pharmacology
- immunopharmacology
- neuropharmacology
- pharmacogenetics
- psychopharmacology
- receptor pharmacology
- second messengers and signal transduction
- toxicology

Contact and Address

Web: [www.pharmtox.utoronto.ca](http://www.pharmtox.utoronto.ca)
Email: pharmtox.dept@utoronto.ca
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Department of Pharmacology and Toxicology
University of Toronto
Medical Sciences Building, 1 King's College Circle, Room 4207
Toronto, Ontario M5S 1A8
Canada

Pharmacology and Toxicology: Graduate Faculty

Full Members

Al-awar, Rima - PhD
Andreazza, Ana Cristina - BPhm, MSc, PhD, PhD
Banasr, Mounira - PhD
Beaulieu, Martin - PhD
Boileau, Isabelle - PhD
Brands, Bruna - PhD
Cherney, David - MD, PhD
De Luca, Vincenzo - MD, PhD
Dorian, Paul - MSc, MDCH
Edgar, Landon - PhD
Eubanks, James - BSc, AA, PhD
Finkelstein, Yaron - MD
George Bahl, Susan - MD
Goldstein, Benjamin - MD
Grant, Denis - BSc, PhD
Hahn, Margaret - DrMed, PhD
Hampson, David - PhD
Hubbard, Basil - PhD
Ito, Shinya - MD, BM
Kish, Stephen John - BSc, MSc, PhD
Kolla, Nathan - BA, MA, MD, PhD
Le Foll, Bernard - MSc, DrMed, PhD
Le, Dzung - PhD
Matthews, Jason - PhD
McIntyre, Roger - MD
McPherson, J. Peter - MSc, PhD (Coordinator of Graduate Studies)
Meyer, Jeffrey - MD
Mitchell, Jane - BSc, PhD
Mizrahi, Romina - MD, PhD
Mueller, Daniel - MD
Nobrega, Jose - PhD
Pang, Sandy - BSc, PhD
Parker, John - BA, MD
Piquette-Miller, Micheline - BScPhm, PhD
Pollock, Bruce - BSc, MD, PhD
Ramsey, Amy - PhD
Riddick, David - BSc, PhD
Ross, Ruth Alexandra - PhD
Roy, Peter John - BSc, PhD
Salahpour, Ali - PhD (Chair and Graduate Chair)
Salmena, Leonardo - PhD
Schapira, Matthieu - MChem, PhD
Schimmer, Bernard - BS, PhD
Sibille, Etienne - BSc, PhD
Sloan, Matthew - MSc, MD
Snead III, Carter - BS, MD, MD
Swardfager, Walter - PhD
Tyndale, Rachel - PhD
Uetrecht, Jack - BSc, MSc, MD, PhD
Vedadi, Masoud - PhD
Verma, Subodh - MSc, MD, PhD
Wells, James - BSc, MSc, PhD
Wells, Peter - BScPhm, DP
Wong, Albert - MD, PhD
Woo, Minna - MD
Young, Trevor - MSc, MD, PhD
Yu, Haung - PhD
Zawertailo, Laurie Anne - PhD

Members Emeriti

Burnham, Willets - PhD
Kalant, Harold - BSc, MD, PhD
Okey, Allan - BSc, MSc, PhD
Pace-Asciak, Cecil - PhD

Associate Members

Arnot, Michelle - PhD
Hamadanizadeh, Anita - PhD
Hess, David - PhD
Kloiber, Stefan - DrMed
Laposa, Rebecca - PhD
Mittmann, Nicole - PhD
Reed, Mark - PhD
Sun, Hong-Shuo - MSc, DrMed, DPhil
Udell, Jacob - BSc, MPH, MD
Woodland, Cindy - PhD
Zack, Martin - BSc, MASc, PhD

Pharmacology and Toxicology:
Pharmacology MSc (Thesis-Based Option)

Master of Science

Program Description

In the MSc program, students are expected to undertake self-directed study and demonstrate proficiency in pharmacological principles throughout the course of the program. They are able to engage in one of two formats of study: 1) thesis-based study or 2) course-based study in the field of Applied Clinical Pharmacology (ACP).

In the thesis-based study, students are expected to think critically about scientific issues and develop a knowledge base in pharmacology while formulating hypotheses in a specific area of pharmacological research. They will test their hypotheses through active research and present their investigations in a thesis.

The thesis-based MSc program can be taken on a full-time or part-time basis.

MSc Program (Thesis-Based Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Pharmacology and Toxicology’s additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a final-year average of at least a B+.
- Applicants are normally required to have taken courses in physiology, biochemistry, or applied sciences sufficient to form a foundation for their work in pharmacology.
- All successful applicants are responsible for obtaining research supervision and financial support before they are permitted to officially register in their program.

Program Requirements

- **Coursework.** Students must complete PCL1002Y *Graduate Pharmacology* (1.0 full-course equivalent [FCE]). The academic program may require additional coursework.
  - Each student will present a **departmental seminar** after approximately one year in the program.
  - Each student will participate in a research program and present the results of the investigation as a **written thesis**. The thesis will be evaluated and defended to the satisfaction of a thesis examination committee.
  - MSc students in pharmacology who intend to continue their studies in the PhD program may choose to be evaluated during their MSc **oral defence**.
- Minimum period of one full year of **residence**, during which time the student is required to be on campus full-time and consequently in such geographical proximity as to be able to participate fully in the department's activities associated with the program.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
9 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Pharmacology and Toxicology:
Pharmacology MSc; Field: Applied Clinical Pharmacology

Program Description

In the MSc program, students are expected to undertake self-directed study and demonstrate proficiency in pharmacological principles throughout the course of the program. They are able to engage in one of two formats of study: 1) thesis-based study or 2) course-based study in the field of Applied Clinical Pharmacology (ACP).
In the course-based Applied Clinical Pharmacology (ACP) field, students will engage in research and hands-on training in academic, commercial, health care, and/or government settings. Courses will feature a breadth of fundamental and applied pharmacology topics with emphasis on translational research. The course-based ACP field does not have a part-time option.

MSc Program: Applied Clinical Pharmacology Field (Course-Based Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Pharmacology and Toxicology’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university with a final-year average of at least a B+.
- Applicants are normally required to have taken courses in physiology and biochemistry, or applied sciences sufficient to form a foundation for their work in pharmacology.

Program Requirements

Coursework. Students must complete **8.0 full-course equivalents (FCEs)**. The curriculum is designed in an integrated fashion such that each subsequent course reinforces and builds upon prior knowledge. Students are expected to complete the required courses in Year 1. Elective courses may be taken in either year with practicum opportunities offered following successful completion of the required courses.

- **Year 1 required courses (6.0 FCEs)**; these courses are spread throughout the first 12 months of the program:
  - PCL1400H Systems Pharmacology I
  - PCL1500H Systems Pharmacology II
  - PCL1002Y Graduate Pharmacology
  - PCL1004Y Clinical Pharmacology
  - PCL1100H Applied Skills in Clinical Pharmacology
  - PCL1101H Technology, Techniques, and Translation in Pharmacology and Toxicology
  - PCL1402H Pharmacology and Toxicology in Drug Development
  - PCL1491H Clinical Pharmacology: Principles in Practice
  - PCL2200Y Major Research Project

Plus

- **Elective courses (2.0 FCEs)**. Elective coursework is selected through consultation with the program director with the intention to allow individual students to tailor their degree towards their interests and career goals. Popular elective courses include:
  - PCL1300H Selected Topics in Clinical Pharmacology (Credit/No Credit)
  - PCL2100Y Practicum in Clinical Pharmacology (Credit/No Credit; 2.0 FCEs)
  - PCL2101Y Practicum in Clinical Pharmacology I (Credit/No Credit)
  - PCL2102Y Practicum in Clinical Pharmacology II (Credit/No Credit)
  - PCL2201Y Research Project Extended Study (Credit/No Credit)
  - APS1001H Project Management
  - CHL5201H Biostatistics I
  - JNP1014Y Interdisciplinary Toxicology
  - JPM1005Y Behavioural Pharmacology
  - RSM2017H Pharmaceutical Strategy

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time

° Course that may continue over a program. The course is graded when completed, or credit is given when the course is completed.

MSc Program: Applied Clinical Pharmacology Field (Course-Based, Advanced-Standing Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Pharmacology and Toxicology’s additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university with a final-year average of at least a B+.
- Applicants are normally required to have taken courses in physiology and biochemistry, or applied sciences sufficient to form a foundation for their work in pharmacology.
- At the discretion of the program director, applicants who demonstrate pharmacology knowledge that significantly overlaps with the Applied Clinical Pharmacology curriculum may be considered for advanced standing with either:
  - a bachelor's degree specializing in pharmacology or biomedical toxicology or
  - MD degree (undergraduate medical education) with coursework in pharmacology.

Program Requirements

Coursework. Students must complete **at least 4.0 full-course equivalents (FCEs)** as follows:

- PCL1002Y Graduate Pharmacology (1.0 FCE)
- PCL1004Y Clinical Pharmacology (1.0 FCE)
- PCL1100H Applied Skills in Clinical Pharmacology (0.5 FCE)
- PCL2200Y Major Research Project (1.0 FCE), starting in the Fall of Year 1.
- At least one half-course elective (0.5 FCE) chosen from the following list, and upon recommendation and approval by the program director:
  - PCL1101H Technology, Techniques, and Translation in Pharmacology and Toxicology
  - PCL1300H Selected Topics in Clinical Pharmacology and Toxicology (Credit/No Credit)
  - CHL5201H Biostatistics I (exclusion: LMP1407H)
  - JNP1014Y Interdisciplinary Toxicology
  - JPM1005Y Behavioural Pharmacology
Pharmacology and Toxicology: Pharmacology PhD

Doctor of Philosophy

Program Description

The objective of the PhD degree is to have students possess a comprehensive understanding of the general area of pharmacology, in addition to specific expertise in their particular area of interest. They build on their knowledge of pharmacology, in addition to specific expertise in their particular areas of research focus. During their program, PhD students are required to choose four breadth modules from among available options. 0.5 FCE from outside the student's research area may substitute for one of the four breadth modules. The student's advisory committee will assist the student in choosing suitable modules.

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate master's degree; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion of an appropriate bachelor's degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Pharmacology and Toxicology's additional admission requirements stated below.
- Appropriate master's degree from a recognized university with an average of at least a B+ in master's degree courses.
- Applicants are normally required to have taken courses in physiology, biochemistry, or applied sciences sufficient to form a foundation for their work in pharmacology.
- The department determines the eligibility of prospective students. The department assesses the student's ability for advanced study and independent research in pharmacology.
- Students transferring from the master's program in Pharmacology to the PhD program may receive full credit for master's courses towards doctoral course requirements, with the department's permission.
- Well-qualified students with excellent research potential holding an appropriate bachelor's degree from a recognized university may be considered for direct entry to the PhD program. These applicants must have achieved a minimum final-year average of A–.
- Applicants admitted without prior screening (i.e., with MSc degrees from other departments or universities, and students admitted with a bachelor's degree) will have their research ability reviewed after completion of one year. Upon successful completion of a departmental seminar and recommendation from the student's advisory committee, the student will be permitted to proceed with the PhD program.
- The department must be satisfied about the applicant's background, accomplishments, and financial support.
- All successful applicants are responsible for obtaining research supervision and financial support before they are permitted to officially register in their program.

Program Length

4 years full-time; 5 years transfer-from-master's; 5 years direct-entry

Time Limit

6 years full-time; 7 years transfer-from-master's; 7 years direct-entry

Course that may continue over a program. The course is graded when completed.
Pharmacology and Toxicology: Pharmacology MSc, PhD Courses

The department should be consulted each session as to course offerings. Students may also find up-to-date course information on the departmental website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PCL1002Y</td>
<td>Graduate Pharmacology</td>
</tr>
<tr>
<td>PCL1003Y</td>
<td>Seminars in Pharmacology (Credit/No Credit)</td>
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<tr>
<td>PCL1004Y</td>
<td>Clinical Pharmacology</td>
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<tr>
<td>PCL1100H</td>
<td>Applied Skills in Clinical Pharmacology</td>
</tr>
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<td>PCL1101H</td>
<td>Technology, Techniques, and Translation in Pharmacology and Toxicology</td>
</tr>
<tr>
<td>PCL1110H</td>
<td>Applied Skills in Clinical Pharmacology</td>
</tr>
<tr>
<td>PCL1300H</td>
<td>Selected Topics in Clinical Pharmacology and Toxicology (Credit/No Credit)</td>
</tr>
<tr>
<td>PCL1400H</td>
<td>Systems Pharmacology I</td>
</tr>
<tr>
<td>PCL1402H</td>
<td>Pharmacology and Toxicology in Drug Development</td>
</tr>
<tr>
<td>PCL1491H</td>
<td>Clinical Pharmacology: Principles in Practice (corequisite: PCL1004Y or prior pharmacokinetics course)</td>
</tr>
<tr>
<td>PCL1500H</td>
<td>Systems Pharmacology II</td>
</tr>
<tr>
<td>PCL2100Y</td>
<td>Practicum in Clinical Pharmacology (Credit/No Credit; 2.0 FCEs) (prerequisite: PCL1100H(^0))</td>
</tr>
<tr>
<td>PCL2101Y</td>
<td>Practicum in Clinical Pharmacology I (Credit/No Credit) (prerequisite: PCL1100H(^0))</td>
</tr>
<tr>
<td>PCL2200Y</td>
<td>Major Research Project (prerequisite or corequisite: PCL1100H(^0))</td>
</tr>
<tr>
<td>PCL2201Y</td>
<td>Research Project Extended Study (Credit/No Credit) (prerequisite: PCL2200Y(^0))</td>
</tr>
<tr>
<td>CHL5201H</td>
<td>Biostatistics I (exclusion: LMP1407H)</td>
</tr>
<tr>
<td>JFK1122H</td>
<td>Drug Transport Across Biological Membranes</td>
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<tr>
<td>JNP1014Y</td>
<td>Interdisciplinary Toxicology</td>
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<tr>
<td>JNP1016H</td>
<td>Graduate Seminar in Toxicology (prerequisite or corequisite: JNP1014Y)</td>
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<tr>
<td>JNP1017H</td>
<td>Current Topics in Molecular and Biochemical Toxicology</td>
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<tr>
<td>JNP1018H</td>
<td>Molecular and Biochemical Basis of Toxicology</td>
</tr>
<tr>
<td>JNR1444Y</td>
<td>Fundamentals of Neuroscience: Cellular and Molecular</td>
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<tr>
<td>JPM1005Y</td>
<td>Behavioural Pharmacology</td>
</tr>
<tr>
<td>JYG1555H</td>
<td>Advanced Topics: Cellular and Molecular Neurobiology</td>
</tr>
</tbody>
</table>

\(^0\) Course that may continue over a program. The course is graded when completed, or credit is given when the course is completed.

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Philosophy

Philosophy: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Philosophy

MA

• Concentration: Philosophy of Science

PhD

Combined Degree Programs

STG, Law, Juris Doctor / Philosophy, PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

• Ancient and Medieval Philosophy
  o Philosophy, PhD

• Bioethics
  o Philosophy, MA, PhD

• Jewish Studies
  o Philosophy, MA, PhD

• Sexual Diversity Studies
  o Philosophy, MA, PhD

• Women and Gender Studies
  o Philosophy, MA, PhD

Overview

Philosophy has been taught at the University of Toronto since 1843. Much has changed in that time, but the department remains Canada’s preeminent philosophy department. It is an international leader in the history of philosophy — especially ancient and medieval philosophy — as well as ethics, philosophy of science, and philosophy of mind. In all of these areas, department members take contemporary philosophical problems and their historical antecedents to illuminate one another.

The department’s most distinctive strength is its broad coverage of the history of philosophy. While peer departments usually have one or two experts in a few historical periods, U of T has specialists in every area of the history of Western philosophy, as well as in aspects of the history of non-Western philosophy. This historical focus engages with other areas of strength: ethics, philosophy of science, and philosophy of mind.

Many U of T faculty working in these areas also study their history; they use that study to inform their contributions to contemporary debates. At the same time, these historians of philosophy benefit from and contribute to ground-breaking work in systematic philosophy. This integration of historical and systematic philosophy sets this department apart from other top philosophy departments where the history of philosophy is often segregated from the rest of the discipline.

Contact and Address

Web: philosophy.utoronto.ca
Email: graduate.phil@utoronto.ca
Telephone: (416) 978-3312
Fax: (416) 978-8703

Department of Philosophy
University of Toronto
Jackman Humanities Building (JHB)
Room 410, 170 St. George Street
Toronto, Ontario M5R 2M8
Canada

Philosophy: Graduate Faculty

Full Members

Ainslie, Donald - BSc, MA, PhD
Allen, James - BA, PhD
Barney, Rachel - BA, PhD
Black, Deborah - BA, MA, PhD
Caie, Michael - PhD
Charlow, Nathan - BA, MA, PhD
Clark, Philip - BA, MA, PhD
Comay, Rebecca - BA, MA, PhD
Das, Nilanjan - BA, MA, PhD
Dickie, Imogen - BA, BPhil, DPhil
Dyzenhaus, David - BA, LLB, DPhil
Fraser, Chris - PhD
Ganeri, Jonardon - MMath, DPhil
Gelber, Jessica - PhD
Gerson, Lloyd - BA, MA, PhD, FRSC
Gibbs, Robert - BA, MA, PhD
Gooch, Paul William - BA, MA, PhD
Heath, Joseph - BA, MA, PhD, FRSC
Hellie, Benjamin - BA, PhD
Huber, Franz - MA, PhD
Hurka, Thomas - BA, BPhil, DPhil, FRSC
King, Peter - BA, PhD
Kingwell, Mark - BA, MA, MPH, DFA, PhD
Kremer, Philip - BS, PhD
Matthen, Mohan - PhD, FRSC
Miller, Michael - AB, AM, PhD
Misak, Cheryl - BA, MA, DPhil, FRSC
Moreau, Sophia - BA, BPhil, PhD, JD
Mullin, Amy - BA, PhD (Graduate Director)
Nagel, Jennifer - BA, MA, PhD
Nefskey, Julia - BA, PhD
Pasternak, Avia - MPA, PhD
Pickavé, Martin - MA, PhD (Chair and Graduate Chair)
Raffman, Diana - BA, PhD, FRSC
Rattan, Gurpreet - BSc, AM, MPH, PhD
Ripstein, Arthur S. - BA, MA, LLM, PhD, Howard Beck, Q.C.
Chair
Rosenthal, Michael - PhD
Rozemond, Marleen - BA, PhD
Sedivy, Sonia - BA, PhD
Sepielli, Andrew - AB, JD, PhD
Smith, Brian Cantwell - BS, MS, PhD
Stang, Nicholas - AB, PhD
Tenenbaum, Sergio - MA, PhD
Walsh, Denis - BA, BSc, MPH, PhD, PhD
Ware, Owen - BA, PhD
Weisberg, Jonathan - BMath, BPhil, PhD
Wilson, Jessica Marie - BA, PhD
Yi, Byeong-Uk - BA, MA, MA, PhD

Members Emeriti
Allen, Derek - BA, BPhil, MA, DPhil
Brown, James - BA, MA, PhD, FRSC
De Sousa, Ronald - BA, PhD, FRSC
Goldstick, Daniel - BA, BPhil, DPhil
Hutchinson, Douglas S - BA, BPhil, DPhil
Inwood, Brad - BA, MA, PhD, FRSC
Katz, Bernard - BA, MA, PhD
Lange, Lynda - BA, MA, PhD
Seager, William Edward - BA, MA, PhD
Stefanovic, Ingrid - BA, MA, PhD
Urquhart, Alasdair - MA, MA, PhD

Associate Members
Aronowitz, Sara - PhD
Babic, Boris - PhD, JD
Dika, Tarek - MPH, PhD
Freschi, Elisa - PhD
Goetschel, Willi - PhD
Howard, Nathan - BA, MA, MPH, DPhil
Larsen, Rasmus Rosenberg - BA, MA, PhD
Paris, William - MA, PhD
Teitel, Trevor - PhD
Vold, Karina - BA, PhD

Philosophy: Philosophy MA

Master of Arts

Program Description

The MA may be taken on a full-time or part-time basis.

Applicants should consult the department's web page for complete details on graduate programs, course offerings, short academic profiles of graduate faculty, and application procedures.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Philosophy's additional admission requirements stated below.
- Admission requires an appropriate bachelor's degree from a recognized university. Applicants must have a strong background in philosophy (roughly equivalent to an undergraduate major), with an average grade of at least a mid-B in the applicant's overall program and at least an A– in the applicant's philosophy courses.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must complete the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL exam: 600 and 5 on the Test of Written English (TWE).
  - Internet-based TOEFL exam: 100/120 and 22/30 on the writing and speaking sections.
- Equivalent results in some other recognized test of English-language proficiency are acceptable.

Program Requirements

- **Coursework.** Students must successfully complete 3.5 full-course equivalents (FCEs) in philosophy as follows:
  - At least 1.0 FCE in the history of philosophy.
  - At least 1.0 FCE in the problems of philosophy.
  - 1.0 FCE designated courses only for MA students. One 0.5 FCE in the broad area of ethics/politics and the other 0.5 FCE in the broad area of metaphysics and epistemology. Either could be historical. The timing of the course requirement is:
    - PHL2222H MA Proseminar I (0.5 FCE), taken in the first session.
    - PHL2223H MA Proseminar II (0.5 FCE), taken in the second session.
  - PHL3000H MA Professional Development Workshop (0.5 FCE).
- Each MA student is assigned an advisor who will recommend a suitable program of philosophy courses. The student's choice of courses must be approved by the department.
- It is possible for a full-time student to complete all requirements for the MA degree in the Fall and Winter sessions; however, the department encourages students to take no more than 3.0 FCEs during the Fall and Winter sessions and to complete the last course during the Summer session.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
5 years part-time

Time Limit

3 years full-time;
6 years part-time

Concentration: Philosophy of Science

The Philosophy of Science concentration will provide students with a background in general philosophy of science and with specific topics in philosophy of science. Students will be prepared for academic work at the PhD level in philosophy and for non-academic career tracks that require strong critical thinking skills, as well as an understanding of science and its role in knowledge and society.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Philosophy's additional admission requirements stated below.
Admission requires an appropriate bachelor's degree from a recognized university. Applicants must have a strong interest in:
- Philosophy (evidenced in a strong writing sample, personal statement, and letters of reference).
- A strong academic background in either philosophy or, typically, a subject in the natural and social sciences, with minimum average grades of A–.

Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must complete the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
- Paper-based TOEFL exam: 600 and 5 on the Test of Written English (TWE).
- Internet-based TOEFL exam: 100/120 and 22/30 on the writing and speaking sections.

Equivalent results in some other recognized test of English-language proficiency are acceptable.

Program Requirements

- **Coursework.** Students must successfully complete 3.5 full-course equivalents (FCEs) including:
  - PHL2198H Advanced Introduction to the Philosophy of Science (0.5 FCE)
  - 1.5 FCE in graduate seminars in philosophy of science or cognate areas of philosophy such as logic, philosophy of language, epistemology, metaphysics, or philosophy of mind.
  - 1.0 FCE in graduate courses in the history and philosophy of science and technology (HPS) such as HPS1000H, HPS2009H, HPS 2010H, HPS3004H, HPS3010H, HPS4001H. A list of recommended HPS courses will be prepared and shared annually on the Department of Philosophy's [graduate courses web page](#). Students will have the opportunity to request other HPS electives that reflect their specific research interests.
  - PHL3000H MA Professional Development Workshop (0.5 FCE).

- Each MA student is assigned an advisor who will recommend a suitable program of philosophy courses. The student's choice of courses must be approved by the department.

- It is possible for a full-time student to complete all requirements for the MA degree in the Fall and Winter sessions; however, the department encourages students to take no more than 3.0 FCEs during the Fall and Winter sessions and to complete the last course during the Summer session.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 5 years part-time

Time Limit

3 years full-time; 6 years part-time

Philosophy: Philosophy PhD

Doctor of Philosophy

Program Description

The PhD program has two options: a five-year option and a four-year option. The five-year option is the most common and is the only direct-entry option for students with a bachelor's degree. The five-year option provides five years of funding and requires two years of coursework, while the four-year option provides four years of funding and requires one year of coursework. The program requirements are summarized below.

Students enrolled in graduate programs in philosophy in other universities are welcome to apply to spend a year studying at the University of Toronto. Please direct any inquiries to the Director of Graduate Studies.

Students who wish to take, for credit, one or more of the courses offered by the department as non-degree students, should apply for admission as Special Students. The application procedures and deadlines are the same as those for the MA program.

Applicants should consult the [department's web page](#) for complete details on graduate programs, course offerings, short academic profiles of graduate faculty, and application procedures.

PhD Program

Minimum Admission Requirements

- Applicants approved by the department are admitted under the General Regulations of the School of Graduate Studies.
- Applicants should have a master's degree in philosophy from a recognized university with an average grade of at least an A– in the applicant's overall program. Applicants must satisfy the department that they are capable of independent research in philosophy at an advanced level.
- Applicants whose primary language is not English and who are not graduates of a university whose language of instruction is English must complete the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL exam: 600 and 5 on the Test of Written English (TWE).
  - Internet-based TOEFL exam: 100/120 and 22/30 on the writing and speaking sections.

Equivalent results in some other recognized test of English-language proficiency are acceptable.

Program Requirements

- **Course Requirements**
  - Students must complete a minimum of 3.0 FCEs in philosophy, with a minimum A– average by the end of Year 1 including:
    - At least 1.0 FCE which must comprise courses from philosophical traditions from different geographical regions and/or different historical periods.
• At least 1.0 FCE which must comprise problems of philosophy courses.
• The proseminar in philosophy (PHL1111H) worth 0.5 FCE during the Fall session of Year 1.
• With the department's permission, a student may replace up to 1.0 FCE in philosophy with graduate courses offered by another department, provided that the courses are required for the student's planned research.

• Breadth Requirement. A student must demonstrate competence in at least six areas of philosophy, including the following:
  o Each of the following three areas in the problems of philosophy:
    ▪ Contemporary issues in metaphysics, epistemology, and philosophy of science.
    ▪ Contemporary issues in values (ethics, politics, aesthetics, and philosophy of religion).
    ▪ Contemporary issues in mind, language, and logic.
  o The remaining three areas must be chosen from philosophical traditions from different geographical regions such as South Asian or East Asian philosophy, and/or different historical periods such as Medieval or Twentieth-Century philosophy.
  o Competence in any area is normally established by successful completion of a graduate 0.5 FCE in that area.
  o A student must also demonstrate competence in logic (defined as proficiency in first-order symbolic logic with identity). This competence is expected of all students prior to beginning doctoral studies. Where this is not the case, competence must be acquired as a supplement to the required number of courses and be demonstrated to the satisfaction of the department by the time the qualifying requirement is met.

• Revision Paper Requirement. To be satisfied either sometime during coursework or in the summer immediately following coursework. Students will designate a particular paper typically written during coursework as their revision paper and will solicit supervision on the revision of the paper from a faculty member. Students will receive verbal and written feedback on their paper from their faculty supervisor and will revise their paper in light of this feedback. A second round of feedback and revision may be sought by the student or the faculty supervisor, after which time the student will again revise and submit. Students should plan to complete the requirement over one or two months depending on whether one or two rounds of revision are undertaken.

• Qualifying Requirement. After completing all course requirements, the student selects a thesis committee that will oversee his or her academic progress through the final thesis defence. The student meets with the committee to discuss a tentative thesis topic, construct an appropriate research reading list, and receive guidance on writing a qualifying paper. After submitting the qualifying paper and making any required adjustments to the reading list, the student takes a two-part (written and oral) qualifying examination based on the paper and the reading list. The paper will be submitted and written and oral exams taken four to six weeks later, during the Winter session of Year 2.

• Dissertation Prospectus Requirement. To be satisfied at the September meeting of the student and their dissertation committee. The prospectus can take many forms and could, for example, proceed by indicating chapters, problems, and literature, and/or theses that will organize, be discussed, or be argued for in the dissertation. Committees will then give feedback on the overall plan. The length of the prospectus will vary from committee to committee but as a rough guideline, the prospectus may comprise a document of three to five pages.

• Research Tools Requirement. Each PhD student must demonstrate competence in at least one research tool. A research tool may be one of the following:
  o Reading knowledge of a language other than English.
  o Familiarity with a discipline other than philosophy (e.g., linguistics, psychology, or mathematics).
  o Mastery of research methods not typical in philosophy (e.g., statistical methods).
  o The research tool will be determined by the Graduate Coordinator in consultation with the student's thesis committee.

• Thesis. A candidate must submit a thesis on an approved subject and defend the thesis at a Doctoral Final Oral Examination. The department is not obligated to provide supervision in areas falling outside the competency, interest, or availability of its graduate faculty.

• Residence. Students must be registered as full-time, on-campus students and must reside in sufficient geographical proximity to enable them to fulfil the course, breadth, qualifying, and language requirements set by the department in a smooth and timely fashion. They are also expected to participate fully in departmental activities. While writing the thesis, candidates are expected to be in residence, with the exception of absence for research.

• Normal Timeline Through the Program. By the end of Year 1 of registration, students should have completed all the course requirements for the degree. By the end of the following year of registration, all students should have satisfied any remaining breadth requirements, selected a thesis committee, and passed the qualifying examination. (These are general deadlines; consult the department's web page for specific dates and further details.) Thereafter, the candidate selects a member of the thesis committee to be the thesis supervisor and begins work on the thesis, which he or she is expected to finish within two years.

Program Length
4 years

Time Limit
6 years

PhD Program (Direct-Entry)
Minimum Admission Requirements

• Applicants approved by the department are admitted under the General Regulations of the School of Graduate Studies.
• Applicants should have an appropriate bachelor's degree from a recognized university; a strong background in philosophy (roughly equivalent to an undergraduate major); and an average grade of at least a B+ in the overall program and at least an A– in philosophy courses.
• Applicants whose primary language is not English and who are not graduates of a university whose language of instruction is English must complete the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
Program Requirements

**Course Requirements**
- Students must take a minimum of 6.0 FCEs in philosophy, with an average grade of at least an A– including:
  - At least 2.0 FCEs which must comprise courses from philosophical traditions from different geographical regions such as South Asian or East Asian philosophy, and/or different historical periods such as Medieval or Twentieth-Century philosophy.
  - At least 2.0 FCEs which must comprise problems of philosophy courses.
  - The proseminar in philosophy (PHL1111H) worth 0.5 FCE during the Fall session of Year 1.
  - With the department's permission, a student may replace up to 1.0 FCE in philosophy with graduate courses offered by another department, provided that the courses are required for the student's planned research.
- To remain in good standing, students must complete 3.0 FCEs with an A– average by the end of Year 1, and 6.0 FCEs with an A– average by the end of Year 2.

**Breadth Requirement.** A student must demonstrate competence in at least six areas of philosophy, including the following:
- Each of the following three areas in the problems of philosophy:
  - Contemporary issues in metaphysics, epistemology, and philosophy of science.
  - Contemporary issues in values (ethics, politics, aesthetics, and philosophy of religion).
  - Contemporary issues in mind, language, and logic.
- The remaining three required areas must be chosen from philosophical traditions from different geographical regions such as South Asian or East Asian philosophy, and/or different historical periods such as Medieval or Twentieth-Century philosophy.
- Competence in any area is normally established by successful completion of a graduate 0.5 FCE in that area.
- A student must also demonstrate competence in logic (defined as proficiency in first-order symbolic logic with identity). This competence is expected of all students prior to beginning doctoral studies. Where this is not the case, competence must be acquired as a supplement to the required number of courses and be demonstrated to the satisfaction of the department by the time the qualifying requirement is met.

**Revision Paper Requirement.** To be satisfied either sometime during coursework or in the summer immediately following coursework. Students will designate a particular paper typically written during coursework as their revision paper and will solicit supervision on the revision of the paper from a faculty member. Students will receive verbal and written feedback on their paper from their faculty supervisor and will revise their paper in light of this feedback. A second round of feedback and revision may be sought by the student or the faculty supervisor, after which time the student will again revise and submit. Students should plan to complete the requirement over one or two months depending on whether one or two rounds of revision are undertaken.

**Qualifying Requirement.** After completing all course requirements, the student selects a thesis committee that will oversee his or her academic progress through the final thesis defence. The student meets with the committee to discuss a tentative thesis topic, construct an appropriate research reading list, and receive guidance on writing a qualifying paper. After submitting the qualifying paper and making any required adjustments to the reading list, the student takes a two-part (written and oral) qualifying examination based on the paper and the reading list. The paper will be submitted and written and oral exams taken four to six weeks later, during the Winter session of Year 3.

**Dissertation Prospectus Requirement.** To be satisfied at the September meeting of the student and her dissertation committee. The prospectus can take many forms and could, for example, proceed by indicating chapters, problems, and literature, and/or theses that will organize, be discussed, or be argued for in the dissertation. Committees will then give feedback on the overall plan. The length of the prospectus will vary from committee to committee but as a rough guideline, the prospectus may comprise a document of three to five pages.

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**Thesis.** A candidate must submit a thesis on an approved subject and defend the thesis at a Doctoral Final Oral Examination. The department is not obligated to provide supervision in areas falling outside the competency, interest, or availability of its graduate faculty.

**Residence.** Students must be registered as full-time, on-campus students and must reside in sufficient geographical proximity to enable them to fulfil the course, breadth, qualifying, and language requirements set by the department in a smooth and timely fashion. They are also expected to participate fully in departmental activities. While writing the thesis, candidates are expected to be in residence, with the exception of absence for research.

**Normal Timeline Through the Program.** By the end of Year 2 of registration, students should have completed all course requirements for the degree. By the end of the following year of registration, all students should have satisfied any remaining breadth requirements, selected a thesis committee, and passed the qualifying examination. (These are general deadlines; consult the department's web page for specific dates and further details.) Thereafter, the candidate selects a member of the thesis committee to be the thesis supervisor and begins work on the thesis, which he or she is expected to finish within two years.

### Program Length

5 years
**Time Limit**

7 years

**Philosophy: Philosophy MA, PhD Courses**

Not all courses are offered every year. Please consult the department's website, which lists the courses the department will offer this year as well as those offered by other departments that may be taken for philosophy credit.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PHL1111H</td>
<td>PhD Proseminar</td>
</tr>
<tr>
<td>PHL2222H</td>
<td>MA Proseminar I</td>
</tr>
<tr>
<td>PHL2223H</td>
<td>MA Proseminar II</td>
</tr>
<tr>
<td>PHL3000H</td>
<td>MA Professional Development Workshop</td>
</tr>
</tbody>
</table>

**Concentration: Philosophy of Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PHL2198H</td>
<td>Advanced Introduction to the Philosophy of Science</td>
</tr>
</tbody>
</table>

**Reading Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHL1000H</td>
<td>Reading Course</td>
</tr>
<tr>
<td>PHL1000Y</td>
<td>Reading Course</td>
</tr>
<tr>
<td>PHL1001H</td>
<td>Reading Course</td>
</tr>
<tr>
<td>PHL1001Y</td>
<td>Reading Course</td>
</tr>
<tr>
<td>PHL1500H</td>
<td>Reading Course</td>
</tr>
<tr>
<td>PHL1500Y</td>
<td>Reading Course</td>
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</table>

**History of Philosophy**

**Classical Greek and Roman Philosophy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHL2000H</td>
<td>Early Greek Philosophy</td>
</tr>
<tr>
<td>PHL2002H</td>
<td>Plato</td>
</tr>
<tr>
<td>PHL2003H</td>
<td>Aristotle</td>
</tr>
<tr>
<td>PHL2005H</td>
<td>Seminar in Plato</td>
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</table>

**East Asian Philosophy**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHL2013H</td>
<td>Topics in Chinese Philosophy</td>
</tr>
<tr>
<td>PHL2014H</td>
<td>Topics in Chinese Moral Psychology</td>
</tr>
<tr>
<td>PHL2016H</td>
<td>Taoism: Philosophy and Religion</td>
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</table>

**South Asian Philosophy**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHL2018H</td>
<td>South Asian Philosophy</td>
</tr>
<tr>
<td>PHL2019H</td>
<td>Topics in South Asian Philosophy</td>
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**Medieval Philosophy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MST3301H</td>
<td>Themes in Medieval Philosophy</td>
</tr>
<tr>
<td>MST3309H</td>
<td>Birth of the Will: Augustine and Anselm</td>
</tr>
<tr>
<td>MST3311H</td>
<td>Topics in Medieval Metaphysics</td>
</tr>
<tr>
<td>MST3322H</td>
<td>William of Ockham</td>
</tr>
<tr>
<td>MST3327H</td>
<td>Free Will and Human Action in Medieval Philosophy</td>
</tr>
<tr>
<td>MST3346H</td>
<td>Medieval Islamic Philosophy</td>
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</table>

**Early Modern Philosophy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHL2051H</td>
<td>The Rationalists</td>
</tr>
<tr>
<td>PHL2055H</td>
<td>The Empiricists</td>
</tr>
<tr>
<td>PHL2057H</td>
<td>Seminar in Seventeenth-and Eighteenth-Century Philosophy</td>
</tr>
<tr>
<td>PHL2063H</td>
<td>Kant's Ethics</td>
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</table>
### Feminist Philosophy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PHL2140H</td>
<td>Topics in Feminist Philosophy</td>
</tr>
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</table>

### Nineteenth- and Twentieth-Century Philosophy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHL2070H</td>
<td>Topics in Philosophy of Race</td>
</tr>
<tr>
<td>PHL2076H</td>
<td>Hegel</td>
</tr>
<tr>
<td>PHL2078H</td>
<td>Kierkegaard</td>
</tr>
<tr>
<td>PHL2079H</td>
<td>Marxist Philosophy</td>
</tr>
<tr>
<td>PHL2084H</td>
<td>Seminar in Nineteenth-Century Continental Philosophy</td>
</tr>
<tr>
<td>PHL2085H</td>
<td>Husserl</td>
</tr>
<tr>
<td>PHL2088H</td>
<td>Heidegger</td>
</tr>
<tr>
<td>PHL2089H</td>
<td>Seminar in Twentieth-Century Continental Philosophy</td>
</tr>
<tr>
<td>PHL2090H</td>
<td>Hermeneutics</td>
</tr>
<tr>
<td>PHL2091H</td>
<td>The Critical Theory of Society</td>
</tr>
<tr>
<td>PHL2092H</td>
<td>Pragmatism</td>
</tr>
<tr>
<td>PHL2093H</td>
<td>Frege</td>
</tr>
<tr>
<td>PHL2094H</td>
<td>Russell</td>
</tr>
<tr>
<td>PHL2095H</td>
<td>Wittgenstein</td>
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<tr>
<td>PHL2096H</td>
<td>Early Analytic Philosophy</td>
</tr>
<tr>
<td>PHL2097H</td>
<td>Later Analytic Philosophy</td>
</tr>
<tr>
<td>PHL2192H</td>
<td>Seminar in Analytic Philosophy</td>
</tr>
<tr>
<td>PHL2193H</td>
<td>Topics in Analytic Philosophy</td>
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</tbody>
</table>

### History and Philosophy of Science and Technology

For MA students in the Philosophy of Science concentration.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>HPS2000H</td>
<td>History of Mathematics</td>
</tr>
<tr>
<td>HPS2001H</td>
<td>History of Physics</td>
</tr>
<tr>
<td>HPS2003H</td>
<td>History of Biology</td>
</tr>
<tr>
<td>HPS2004H</td>
<td>History of Medicine</td>
</tr>
<tr>
<td>HPS2008H</td>
<td>History of Psychology</td>
</tr>
<tr>
<td>HPS2009H</td>
<td>History and Philosophy of the Social Sciences</td>
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</table>

### Problems of Philosophy

#### Metaphysics and Epistemology

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PHL2101H</td>
<td>Seminar in Metaphysics</td>
</tr>
<tr>
<td>PHL2105H</td>
<td>Topics in Metaphysics</td>
</tr>
<tr>
<td>PHL2111H</td>
<td>Seminar in Epistemology</td>
</tr>
<tr>
<td>PHL2115H</td>
<td>Topics in Epistemology</td>
</tr>
<tr>
<td>PHL2117H</td>
<td>Formal Epistemology</td>
</tr>
<tr>
<td>PHL2119H</td>
<td>Philosophical Foundations of Multidisciplinary Studies</td>
</tr>
<tr>
<td>PHL2171H</td>
<td>Philosophy of Mind</td>
</tr>
<tr>
<td>PHL2172H</td>
<td>Seminar in Philosophy of Mind</td>
</tr>
<tr>
<td>PHL2175H</td>
<td>Philosophy of Perception</td>
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</tbody>
</table>

#### Logic and the Philosophy of Language

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>PHL2120H</td>
<td>Introductory Mathematical Logic</td>
</tr>
<tr>
<td>PHL2122H</td>
<td>Advanced Logic</td>
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<tr>
<td>PHL2124H</td>
<td>Seminar in Logic</td>
</tr>
<tr>
<td>PHL2125H</td>
<td>Many Valued and Modal Logics</td>
</tr>
<tr>
<td>PHL2126H</td>
<td>Philosophy of Logic</td>
</tr>
<tr>
<td>PHL2127H</td>
<td>Philosophy of Mathematics</td>
</tr>
<tr>
<td>PHL2130H</td>
<td>Topics in Informal Logic</td>
</tr>
<tr>
<td>PHL2137H</td>
<td>Philosophy of Action</td>
</tr>
<tr>
<td>PHL2190H</td>
<td>Philosophy of Language</td>
</tr>
<tr>
<td>PHL2191H</td>
<td>Seminar in the Philosophy of Language</td>
</tr>
<tr>
<td>PHL2197H</td>
<td>Foundations of Computation and Information</td>
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### Value Theory

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PHL2131H</td>
<td>Ethics</td>
</tr>
<tr>
<td>PHL2132H</td>
<td>Seminar in Ethics</td>
</tr>
<tr>
<td>PHL2135H</td>
<td>Metaethics</td>
</tr>
<tr>
<td>PHL2141H</td>
<td>Political Philosophy</td>
</tr>
<tr>
<td>PHL2142H</td>
<td>Seminar in Political Philosophy</td>
</tr>
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<tr>
<td>PHL2143H</td>
<td>Social Philosophy</td>
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<tr>
<td>PHL2144H</td>
<td>Seminar in Social Philosophy</td>
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<tr>
<td>PHL2145H</td>
<td>Bioethics</td>
</tr>
<tr>
<td>PHL2146Y</td>
<td>Topics in Bioethics</td>
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<tr>
<td>PHL2148H</td>
<td>Philosophy of Law</td>
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<tr>
<td>JPL2149H</td>
<td>Legal Theory</td>
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<tr>
<td>PHL2151H</td>
<td>Aesthetics</td>
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<tr>
<td>PHL2152H</td>
<td>Philosophy and Teaching</td>
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**Philosophy of Science**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>JPH2194H</td>
<td>Topics in the History of the Philosophy of Science</td>
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<tr>
<td>PHL2195H</td>
<td>Philosophy of Biology</td>
</tr>
<tr>
<td>PHL2196H</td>
<td>Topics in the Philosophy of Science</td>
</tr>
<tr>
<td>PHL2198H</td>
<td>Advanced Introduction to the Philosophy of Science</td>
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<tr>
<td>PHL2199H</td>
<td>Seminar in the Philosophy of Science</td>
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<td>PHL2200H</td>
<td>Philosophy of Physics</td>
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**Miscellaneous**

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<td>PHL3101H</td>
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<tr>
<td>PHL4900H</td>
<td>Research Seminar</td>
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<tr>
<td>PHL4901H</td>
<td>Revision Paper Requirement (Credit/No Credit)</td>
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</table>
Physical and Environmental Sciences

Physical and Environmental Sciences: Introduction

Faculty Affiliation

University of Toronto Scarborough (UTSC)

Degree Programs

Environmental Science

MEnvSc

- Fields:
  - Climate Change Impacts and Adaptation;
  - Conservation and Biodiversity;
  - Terrestrial and Aquatic Systems

MSc

PhD

- Concentrations:
  - Climate Change and the Environment;
  - Contaminant Flux;
  - Environmental Science in Transitional Economies;
  - Great Lakes Ecosystems;
  - Remediation and Restoration of Degraded Environmental Systems;
  - Urban Geoscience

Combined Degree Programs

- UTSC, Conservation and Biodiversity (Specialist), HBSc / MEnvSc
- UTSC, Environmental Chemistry (Specialist), HBSc / MEnvSc
- UTSC, Environmental Chemistry (Specialist Co-op), HBSc / MEnvSc
- UTSC, Environmental Geoscience (Specialist), HBSc / MEnvSc
- UTSC, Environmental Geoscience (Specialist Co-op), HBSc / MEnvSc
- UTSC, Environmental Physics (Specialist), HBSc / MEnvSc
- UTSC, Environmental Physics (Specialist Co-op), HBSc / MEnvSc
- UTSC, Global Environmental Change (Specialist), HBSc / MEnvSc
- UTSC, Global Environmental Change (Specialist Co-op), HBSc / MEnvSc
- UTSC, Integrative Biology (Specialist), HBSc / MEnvSc

Collaborative Specializations

The following collaborative specializations are available to students in the participating degree programs as listed below:

- Development Policy and Power
  - Environmental Science, MEnvSc
- Environmental Studies
  - Environmental Science, MEnvSc, PhD
- Environment and Health
  - Environmental Science, MEnvSc, PhD
- Food Studies
  - Environmental Science, PhD

Overview

The Graduate Department of Physical and Environmental Sciences offers opportunities for graduate studies in environmental science, leading to the degrees of Master of Environmental Science (MEnvSc), Master of Science (MSc) in Environmental Science, and Doctor of Philosophy (PhD) in Environmental Science.

Contact and Address

Web: www.utsc.utoronto.ca/physsci
MEnvSc email: dpes-menvsc-program.utsc@utoronto.ca
MSc email: dpes-graduate.utsc@utoronto.ca
PhD email: dpes-phd-program.utsc@utoronto.ca
MEnvSc telephone: (416) 287-7205
MSc and PhD telephone: (416) 208-2910
Fax: (416) 287-7204

Graduate Department of Physical and Environmental Sciences
University of Toronto Scarborough
1265 Military Trail
Toronto, Ontario M1C 1A4
Canada

Physical and Environmental Sciences: Graduate Faculty

Full Members

Abbatt, Jonathan - BSc, PhD
Allen, Grant - BASc, MAsc, PhD
Andrade, Maydianne - BSc, MS, PhD
Archontitis, Georgios - BSc, MSc, PhD
(Chair and Graduate Chair)
Bell, Terrence - BSc, MSc, PhD
Bender, Daniel Eric - BA, PhD
Bergquist, Bridget - BS, PhD
Boonstra, Rudy - BSc, PhD
Cadotte, Marc - BS, MS, PhD
Chen, Jing - BSc, PhD
Cowling, Sharon - BSc, MSc, PhD
Creed, Irena - BSc, MSc, PhD
Desloges, Joseph - BES, MSc, PhD
Diamond, Miriam - MSc, MSc, PhD
Dittrich, Maria - BES, MSc, PhD
Donaldson, D. James - PhD
Edwards, Elizabeth - BEng, PhD
Evans, Greg - PhD
Eyles, Nicholas - BSc, MSc, PhD, DSc
Finkelstein, Sarah - AB, MPH, PhD
Gough, William - BSc, MSc, PhD
(Chair and Graduate Chair)
Hamilton, Ian G. - BE, ME, PhD
He, Yuhong - PhD
Herón, Philip Joseph - BSc, MSc, PhD
Hoffmann, Matthew - BSc, PhD
Howard, Ken - BSc, MSc, PhD
Isaac, Marney Elizabeth - BS, MES, PhD
Izmaylov, Artur - PhD
Jackson, Donald - BSc, MSc, PhD
Kerman, Kagan - BScPhm, MSc, ScD
Klenk, Nicole - BS, MSc, PhD
Kraatz, Heinz-Bernhard - BA, MC, PhD
Kronzucker, Herbert - PhD
Lovejoy, Nathan Richard - BSc, MS, PhD
Lowman, Julian - BSc, MS, DPhil
Malcolm, Jay - BSc, MSc, PhD
Mason, Andrew - MS, PhD
Miall, Andrew - BSc, PhD
Mitchell, Carl - PhD (Graduate Associate Chair)
Molnar, Peter Kalman - BS, MMath, PhD
Murphy, Jennifer - BCh, DChem
Porteus, Cosima Sandra - BSc, MSc, PhD
Sherwood Lollar, Barbara - PhD
Short, Steven - BSc, PhD
Siegel, Jeffrey Alexander - BS, MS, PhD
Sinclair, André - BSc, PhD
Simpson, Myra - BS, DPhil
Smith, Sandy - BAgrSc, MSc, PhD
Strong, Kimberly - BSc, DPhil, FRSC
Sulan, Ruby May - BSc, PhD
Trebiznik, Mauricio - BSc, PhD
Tozer, Laura Molly - BSc, MA, PhD
Tsuij, Leonhard - BSc, DDS, PhD
Vanlerberge, Greg - BSc, MSc, PhD
Wang, Yan - BSc, MSc, PhD
Wania, Frank - MPH, PhD
Wells, Mathew - BS, DPhil
Wortmann, Ulrich - BSc, MSc, PhD
Wunch, Debra - BSc, MSc, PhD
Zhang, Xiaolan - BS, MSc, PhD

Members Emeriti
Fulthorpe, Roberta - BSc, MSc, PhD

Associate Members
Alexander, Steven M. - BSc, MSc, PhD
Arnott, Jon - BS, MES, PhD
Bhavsar, Satyendrakumar - BE, PhD
Blukacz-Richards, Agnes - BSc, MSc, PhD
Currie, Warren - BA, BSc, PhD
Dalili, Shadi - MSc, PhD
Daxberger, Heidi - PhD
De Silva, Amila - BSc, MSc, PhD
Dunlop, Erin - BSc, PhD
Emilsson, Eirik - BSc, MSc, PhD
Hadzovic, Alan - BSc, PhD
Harner, Tom - BChE, ME, DrEng
Helm, Paul - BSc, MSc, DChem
Johnson, Cheryl Ann - BASc, MASc, PhD
Koops, Marten - BSc, MSc, PhD
Latulippe, Nicole Monique - BA, MA, PhD
Livingstone, Stuart - BS, PhD
Macko, Rob - BSc, MSc, PhD
MacLellan, James - BA, MS, DPhil
Mandrak, Nicholas - BSc, MSc, PhD
Meriano, Mandana - ScD
Mikhaylichenko, Svetlana - MSc, DChem
Mirza, Monirul - BSE, MEng, PhD
Mohsin, Tanzina - PhD

Muir, Derek - BSc, MSc, PhD
Reichman, Suzie - BSE, PhD
Roy, Dimple - BA, MA
Sauer, Effette - BS, PhD
Smith, Karen Louise - BSc, MASc, MSc, PhD
Steffen, Alexandra - BSc, MSc
Weaver, Dan - BSc, MS, PhD
Wilson, Kathleen - AB, AM, PhD
Yerubandi, Ram - MSc, PhD
Zhu, Jiping - BS, MSc, DSc
Zuk, Aleksandra - BNSc, BM, MA, PhD

Physical and Environmental Sciences:
Environmental Science MEnvSc

Master of Environmental Science

Program Description

The MEnvSc is a 12-month degree program committed to the development of well-trained practitioners in environmental science in all fields, primarily to meet the needs of industry, governments, and environmental policy/education organizations.

The MEnvSc offers three enrolment options — research, internship, and part-time studies — in each of the three fields. The three designated fields of study are:

- **Climate Change Impacts and Adaptation**: Students are trained in the science, data analysis, and rigorous assessment process for the impacts of climate change on a wide range of natural and human systems.
- **Conservation and Biodiversity**: A major focus is the application of ecological theory and principles to real-world conservation challenges.
- **Terrestrial and Aquatic Systems**: A major focus is understanding the flux of contaminants and excess nutrients through surface and sub-surface environments and the methods/solutions needed to remediate contaminated or damaged environmental systems.

In all three fields, students can opt for an internship or a research option after eight months of coursework. The Department of Physical and Environmental Sciences has the support of two dedicated internship coordinators who help students find and successfully complete an internship by providing them with professional skills training and in-class workshops on topics that include job search preparation and skills such as: environmental labour market, workplace expectations, professionalism, networking, and more. The MEnvSc program works closely with a broad employer base for internship opportunities. Research-stream MEnvSc students receive intensive and individualized academic and research support from mentors of their choice.

Full-time and part-time study options are available in all fields of study.
Field: Climate Change Impacts and Adaptation

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Physical and Environmental Sciences' additional admission requirements stated below.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- A minimum mid-B grade average in the last two years of the undergraduate program.
- Applicants must submit a written statement explaining their objectives for entering the program and the suitability of their background. Appropriate post-graduate work experiences will be considered as part of the admission application.
- A science or engineering undergraduate degree including at least two half courses or one full course in each of chemistry, physics, calculus, and biology.

Program Requirements

- Coursework. Students must successfully complete a total of 5.5 full-course equivalents (FCEs) as follows:
  - EES1100H Advanced Seminar in Environmental Science (0.5 FCE)
  - EES1117H Climate Change Impact Assessment (0.5 FCE)
  - EES1132H Climate Data Analysis (0.5 FCE).
    - Note: students who have completed EESD21H3 as part of their undergraduate degree, and achieved a minimum grade of 70%, should replace EES1132H with another elective graduate course of the same credit weight (0.5 FCE).
  - EES1133H Climate Change Science and Modelling (0.5 FCE)
  - Completion of two of the following three courses:
    - EES1131H Applied Climatology (0.5 FCE)
      - Note: students who have completed EESD31H3 as part of their undergraduate degree, and achieved a minimum grade of 70%, cannot complete EES1131H as part of the MEnvSc program; they should complete EES1134H and EES1136H.
    - EES1134H Climate Change Policy (0.5 FCE)
    - EES1136H Climate Change Adaptation (0.5 FCE)
  - Completion of either:
    - 0.5 FCE in elective courses (see course list) and 2.0 FCEs for the internship (EES1116Y), or
    - 1.0 FCE in elective courses (see course list) and 1.5 FCEs for the research paper (EES1101Y). Students planning to complete the research paper option must complete the prerequisite (EES1114H).
- Students will choose either a research or internship option.
  - Research option: Each student is required to have a research supervisor. For full-time students, the intensive research necessary for the research paper will normally be completed in the final Summer session. The final research paper needs to be written in scientific journal format and will be presented and defended orally in front of an examination committee. The committee will include the supervisor and two other members of the graduate faculty.
  - Internship option: For full-time students, the internship in private industry, government, or a non-governmental organization (NGO) will normally be completed in the final Summer session. It will consist of a minimum of four consecutive months. Successful completion of the internship is based on an assessment completed by the student's work supervisor, the satisfactory completion of a written experience report, and the satisfactory completion and presentation of a poster highlighting the internship experience.
- A final grade below 70% in any course equates to an FZ, which is an insufficient grade. A MEnvSc student who receives more than one final grade of FZ (i.e., two or more) will be recommended for termination of registration from the MEnvSc program.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Field: Conservation and Biodiversity

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Physical and Environmental Sciences' additional admission requirements stated below.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- A minimum mid-B grade average in the last two years of the undergraduate program.
- Applicants must submit a written statement explaining their objectives for entering the program and the suitability of their background. Appropriate post-graduate work experiences will be considered as part of the admission application.
- A science or engineering undergraduate degree including at least two half courses or one full course in each of chemistry, physics, calculus, and biology.

Program Requirements

- Coursework. Students must successfully complete a total of 6 years part-time
- Coursework. Students must successfully complete a total of 3 years full-time;

Time Limit

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Field: Conservation and Biodiversity

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Physical and Environmental Sciences' additional admission requirements stated below.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- A minimum mid-B grade average in the last two years of the undergraduate program.
- Applicants must submit a written statement explaining their objectives for entering the program and the suitability of their background. Appropriate post-graduate work experiences will be considered as part of the admission application.
- An undergraduate degree in biology or a closely related field, and successful completion of an undergraduate course in conservation biology. Students who have not successfully completed an undergraduate course in conservation biology will be required to complete an undergraduate course, BIOM63H3 Conservation Biology (0.5 FCE), as an extra (EXT) course.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time
Program Requirements

- **Coursework.** Students must successfully complete a total of 5.5 full-course equivalents (FCEs) as follows:
  - EES1100H *Advanced Seminar in Environmental Science* (0.5 FCE)
  - EES3000H *Applied Conservation Biology* (0.5 FCE)
  - EES3001H *Professional Scientific Literacy* (0.5 FCE)
  - EES3002H *Conservation Policy* (0.5 FCE)
  - EES3003H *Topics in Applied Biodiversity* (0.5 FCE)
  - Completion of either:
    - 1.0 FCE in elective courses (see the course list) and 2.0 FCEs for the internship (EES1116Y) or
    - 1.5 FCEs in elective courses (see the course list) and 1.5 FCEs for the research paper (EES1101Y).
- **Students will choose either a research or internship option.**
  - **Research option:** Each student is required to have a research supervisor. For full-time students, the intensive research necessary for the research paper will normally be completed in the final Summer session. The final research paper needs to be written in scientific journal format and will be presented and defended orally in front of an examination committee. The committee will include the supervisor and two other members of the graduate faculty.
  - **Internship option:** For full-time students, the internship in private industry, government, or a non-governmental organization (NGO) will normally be completed in the final Summer session. It will consist of a minimum of four consecutive months. Successful completion of the internship is based on an assessment completed by the student's work supervisor, the satisfactory completion of a written experience report, and the satisfactory completion and presentation of a poster highlighting the internship experience.
- A final grade below 70% in any course equates to an FZ, which is an insufficient grade. A MEnvSc student who receives more than one final grade of FZ (i.e., two or more) will be recommended for termination of registration from the MEnvSc program.

**Program Length**

- 3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

**Time Limit**

- 3 years full-time; 6 years part-time

**Field: Terrestrial and Aquatic Systems**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Physical and Environmental Sciences' additional admission requirements stated below.
- Applicants whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- A minimum mid-B grade average in the last two years of the undergraduate program.
- Applicants must submit a written statement explaining their objectives for entering the program and the suitability of their background. Appropriate post-graduate work experiences will be considered as part of the admission application.
- A science or engineering undergraduate degree including at least two half courses or one full course in each of chemistry, physics, calculus, and biology.

**Program Requirements**

- **Coursework.** Students must successfully complete a total of 5.5 full-course equivalents (FCEs) as follows:
  - EES1100H *Advanced Seminar in Environmental Science* (0.5 FCE)
  - Complete either:
    - 3.0 FCEs in elective courses (see the course list) and 2.0 FCEs for the internship (EES1116Y) or
    - 3.5 FCEs in elective courses (see the course list) and 1.5 FCEs for the research paper (EES1101Y).
  - Students planning to complete the research paper option must complete the prerequisite EES1114H.
- **Students will choose either a research or internship option.**
  - **Research option:** Each student is required to have a research supervisor. For full-time students, the intensive research necessary for the research paper will normally be completed in the final Summer session. The final research paper needs to be written in scientific journal format and will be presented and defended orally in front of an examination committee. The committee will include the supervisor and two other members of the graduate faculty.
  - **Internship option:** For full-time students, the internship in private industry, government, or a non-governmental organization (NGO) will normally be completed in the final Summer session. It will consist of a minimum of four consecutive months. Successful completion of the internship is based on an assessment completed by the student's work supervisor, the satisfactory completion of a written experience report, and the satisfactory completion and presentation of a poster highlighting the internship experience.
  - A final grade below 70% in any course equates to an FZ, which is an insufficient grade. A MEnvSc student who receives more than one final grade of FZ (i.e., two or more) will be recommended for termination of registration from the MEnvSc program.

**Program Length**

- 3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

**Time Limit**

- 3 years full-time; 6 years part-time
### Physical and Environmental Sciences: Environmental Science MEnvSc Courses

Please note that not all courses are offered every year.

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>EES1100H</td>
<td>Advanced Seminar in Environmental Science</td>
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<tr>
<td>EES1101Y</td>
<td>Research Paper in Environmental Science</td>
</tr>
<tr>
<td>EES1102H</td>
<td>Analytical Chemistry for Geoscientists</td>
</tr>
<tr>
<td>EES1103H</td>
<td>Field Measurement and Sampling: The Essentials</td>
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<tr>
<td>EES1104H</td>
<td>Microorganisms and the Environment</td>
</tr>
<tr>
<td>EES1105H</td>
<td>Soil Contamination Chemistry</td>
</tr>
<tr>
<td>EES1106H</td>
<td>Geological Evolution and Environmental History of North America</td>
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<tr>
<td>EES1108H</td>
<td>Environmental Science Field Camp</td>
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<tr>
<td>EES1109H</td>
<td>Advanced Techniques in Geographic Information Systems</td>
</tr>
<tr>
<td>EES1111H</td>
<td>Freshwater Ecology and Biomonitoring</td>
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<tr>
<td>EES1112H</td>
<td>Contaminant Cycling in Transboundary Environments</td>
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<td>EES1113H</td>
<td>Groundwater Hydrochemistry and Contaminant Transport</td>
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<tr>
<td>EES1114H</td>
<td>Directed Readings in Environmental Science I</td>
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<tr>
<td>EES1115H</td>
<td>Directed Readings in Environmental Science II</td>
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<tr>
<td>EES1116Y</td>
<td>Internship (2.0 FCEs)</td>
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<tr>
<td>EES1117H</td>
<td>Climate Change Impact Assessment</td>
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<tr>
<td>EES1118H</td>
<td>Fundamentals of Ecological Modelling (exclusion: EESD28H3)</td>
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<tr>
<td>EES1119H</td>
<td>Quantitative Environmental Analysis</td>
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<tr>
<td>EES1120H</td>
<td>Fluid Dynamics of Contaminant Transport</td>
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<tr>
<td>EES1121H</td>
<td>Modelling the Fate of Organic Chemicals in the Environment</td>
</tr>
<tr>
<td>EES1122H</td>
<td>Global Sustainability</td>
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<tr>
<td>EES1123H</td>
<td>Environmental Regulations</td>
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<tr>
<td>EES1124H</td>
<td>Environmental Project Management</td>
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<tr>
<td>EES1125H</td>
<td>Contaminated Site Remediation</td>
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<tr>
<td>EES1126H</td>
<td>Hydrology and Watershed Management</td>
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<tr>
<td>EES1127H</td>
<td>Applied Biogeochemistry and Geomicrobiology</td>
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<tr>
<td>EES1128H</td>
<td>Biophysical Interactions in Managed Environments</td>
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<tr>
<td>EES1129H</td>
<td>Brownfields Redevelopment</td>
</tr>
<tr>
<td>EES1130H</td>
<td>Ontario BioGeospheres Field Courses</td>
</tr>
<tr>
<td>EES1131H</td>
<td>Applied Climatology (Exclusion: EESD31H3.)</td>
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<tr>
<td>EES1132H</td>
<td>Climate Data Analysis (Exclusion: EESD21H3.)</td>
</tr>
<tr>
<td>EES1133H</td>
<td>Climate Change Science and Modelling</td>
</tr>
<tr>
<td>EES1134H</td>
<td>Climate Change Policy</td>
</tr>
<tr>
<td>EES1135H</td>
<td>Environmental Change and Human Health</td>
</tr>
<tr>
<td>EES1136H</td>
<td>Climate Change Adaptation</td>
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<tr>
<td>EES1137H</td>
<td>Quantitative Applications for Data Analysis</td>
</tr>
<tr>
<td>EES1139H</td>
<td>Perspectives in Environmental Health: Mechanisms of Toxicity (Prerequisites: at least one undergraduate course in each of the following areas: Introduction to Human Biology or equivalent; Biological Determinants of Health or equivalent; Introduction to Epidemiology or equivalent; and Environmental Health or Toxicology or equivalent.)</td>
</tr>
<tr>
<td>EES1701H</td>
<td>Environmental Legislation and Policy</td>
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<tr>
<td>EES1704H</td>
<td>Environmental Risk Assessment</td>
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<tr>
<td>EES3000H</td>
<td>Applied Conservation Biology</td>
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<tr>
<td>EES3001H</td>
<td>Professional Scientific Literacy</td>
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<tr>
<td>EES3002H</td>
<td>Conservation Policy</td>
</tr>
<tr>
<td>EES3003H</td>
<td>Topics in Applied Biodiversity</td>
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<tr>
<td>EES3111H</td>
<td>Conservation Genetics</td>
</tr>
<tr>
<td>EES3113H</td>
<td>Topics in Population and Community Ecology</td>
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<tr>
<td>EES3114H</td>
<td>Topics in Urban and Rural Ecology</td>
</tr>
<tr>
<td>EES4001H</td>
<td>Internship Training 1 (Restricted to students enrolled in one of the approved combined degree programs with the MEnvSc.)</td>
</tr>
<tr>
<td>EES4003H</td>
<td>Academic Training 1 (Restricted to students enrolled in one of the approved combined degree programs with the MEnvSc.)</td>
</tr>
</tbody>
</table>

### Physical and Environmental Sciences: Environmental Science MSc

#### Master of Science

#### Program Description

The purpose of the MSc in Environmental Science is to train Bachelor of Science or Engineering graduates in the design, execution, and dissemination of research that is focused on the interfaces between traditional disciplines in dealing with fundamentally scientific, environment-focused issues.
This is a full-time, 16-month program with a unique May start date that will help students to rigorously gather data towards the completion of an MSc thesis.

The MSc in Environmental Science will allow students to address major emerging research themes in the environment and pursue projects that make use of complementary research concepts, approaches, and tools. Faculty members are cross-appointed from several graduate units including: Cell and Systems Biology; Chemical Engineering and Applied Chemistry; Chemistry; Earth Sciences; Ecology and Evolutionary Biology; Geography and Planning; Forestry; and Physics, which ensures the supervision of research projects across a broad range of expertise and research facilities. This program will engage these strengths in order to foster research that is critical for finding solutions to, or elucidating the root causes of, today's critical environmental challenges.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Physical and Environmental Sciences' additional admission requirements stated below.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- A science or engineering undergraduate degree with a minimum mid-B grade average in the last two years of the undergraduate program.
- Applicants must submit a written, maximum 300-word statement describing their interests in Environmental Science. The statement should describe any research experience, the suitability of their academic background for an MSc in Environmental Science, and their environmental science-related research objectives in the MSc program. Applicants must make clear in their written statement the supervising professor with which they plan to conduct their thesis research and their interest in conducting research in their chosen area.
- Applicants must have completed one of the following:
  - At least one supervised research experience during their undergraduate studies. This may include an honours thesis, a research-based work term (involving lab or field work, modelling), a summer research experience, or another course formally linked to a research project. One of the applicant’s reference letters must be from their research experience supervisor or co-supervisor.
  - At least 10 one-term courses at the upper levels (Years 3 and 4 of full-time undergraduate studies) in a science discipline (for example, environmental science, earth science, physical geography, biology, chemistry, mathematics/statistics, physics, computer science, forestry) or in a branch of engineering (for example, civil, chemical, environmental).

Program Requirements

- **Coursework.** Students must successfully complete a minimum of 1.5 full-course equivalents (FCEs) as follows:
  - EES1200H Environmental Science Research Experience (0.5 FCE)
  - EES1201H Environmental Science: Approaches and Methods in Research (0.5 FCE)
  - A minimum of 0.5 elective FCE to provide background for the student's research. Courses selected must be approved by the student's supervisor and the Graduate Chair. In some cases, additional courses may be required if a student's preparedness is assessed as being insufficient. Students may apply to take a number of graduate-level courses taught by the core faculty, both within and outside the Graduate Department of Physical and Environmental Sciences, as part of their 0.5 elective FCE for the degree. However, all courses for the MSc degree must be approved by the student's supervisor and the Graduate Chair.
- **Thesis.** The execution of an original piece of research in environmental science carried out under faculty supervision and presented in thesis form. The program requires the oral examination of the completed thesis to a committee of three faculty members, including the faculty supervisor(s).

Program Length

4 sessions full-time (typical registration sequence: S/F/W/S)

Time Limit

3 years full-time

Physical and Environmental Sciences: Environmental Science MSc Courses

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EES1200H</td>
<td>Environmental Science Research Experience</td>
</tr>
<tr>
<td>EES1201H</td>
<td>Environmental Science: Approaches and Methods in Research</td>
</tr>
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</table>

**Elective Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EES1102H</td>
<td>Analytical Chemistry for Geoscientists</td>
</tr>
<tr>
<td>EES1104H</td>
<td>Microorganisms and the Environment</td>
</tr>
<tr>
<td>EES1105H</td>
<td>Soil Contamination Chemistry</td>
</tr>
<tr>
<td>EES1106H</td>
<td>Geological Evolution and Environmental History of North America</td>
</tr>
<tr>
<td>EES1108H</td>
<td>Environmental Science Field Camp</td>
</tr>
<tr>
<td>EES1109H</td>
<td>Advanced Techniques in Geographic Information Systems</td>
</tr>
<tr>
<td>EES1111H</td>
<td>Freshwater Ecology and Biomonitoring</td>
</tr>
<tr>
<td>EES1112H</td>
<td>Contaminant Cycling in Transboundary Environments</td>
</tr>
</tbody>
</table>
Physical and Environmental Sciences:
Environmental Science PhD

Doctor of Philosophy

Program Description

Research and teaching are focused on the interfaces between traditional disciplines in dealing with fundamental scientific issues. Faculty members are cross-appointed from several departments including: chemistry, earth sciences, geography, ecology and evolutionary biology, cell and systems biology, engineering, forestry, physics, and social sciences. Research is clustered into six major concentrations:

- Climate Change and the Environment
- Contaminant Flux
- Environmental Science in Transitional Economies
- Great Lakes Ecosystems
- Remediation and Restoration of Degraded Environmental Systems
- Urban Geoscience

Applicants may be accepted into the PhD program via one of three routes: 1) following completion of an appropriate master's degree; 2) transfer from an appropriate master's program; or 3) direct entry following completion of an appropriate BSc degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Physical and Environmental Sciences' additional admission requirements stated below.
- Applicants may be accepted into the PhD program:
  - Following completion of the MEnvSc degree, an MSc degree in environmental science, or a related discipline, or the MASc degree in environmental engineering or related discipline, or equivalent from a recognized university with a minimum of B+ average in all work completed in the master's program.
  - By requesting transfer from a suitable master's program (see above); students may reclassify from the master's program after 12 months of full-time study. Transfer from the MEnvSc program is not permitted.

Program Requirements

- Coursework. Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - A mandatory 0.5 FCE (EES2200H Advanced Seminar in Environmental Science) plus 1.5 FCEs to provide background for the student's research. Courses selected must be approved by the student's supervisor and the Graduate Chair. In some cases, additional courses may be required if a student's preparedness is assessed as being insufficient.
  - Students may apply to take a number of PhD-level courses taught by the core faculty within the Graduate Department of Physical and Environmental Sciences. Courses taught by faculty outside the Graduate Department of Physical and Environmental Sciences can be considered for the PhD degree as part (0.5 FCE) of their 1.5 FCEs for the degree. However, all courses for the PhD degree must be approved by the student's supervisor and the Graduate Chair.

- Thesis. The execution of an original piece of research in environmental science carried out under faculty supervision and presented in thesis form. The program requires the development and submission of a thesis proposal, and its examination in an oral thesis proposal appraisal (before the end of Year 2), a departmental oral examination of the completed thesis, and a Doctoral Final Oral Examination (FOE) carried out under the auspices of the School of Graduate Studies (SGS) involving examination by an appropriate at-arms-length external examiner.
The PhD proposal appraisal consists of a 20-minute presentation given by the student on the proposed thesis work followed by a question period where the student is examined on their proposal and their mastery of concepts in environmental science. The emphasis will be on the theory and proposed approach, rather than on progress to date. A negative outcome requires that the student retake the exam within four months after incorporating recommendations from the committee for improving the thesis research proposal. The outcome of the second exam will be either a pass or withdrawal from the program.

- **Thesis.** The execution of an original piece of research in environmental science carried out under faculty supervision and presented in thesis form. The program requires the development and submission of a thesis proposal, and its examination in an oral thesis proposal appraisal (before the end of Year 2), a departmental oral examination of the completed thesis, and a Doctoral Final Oral Examination (FOE) carried out under the auspices of the School of Graduate Studies (SGS) involving examination by an appropriate at-arms-length external examiner.

  - The PhD proposal appraisal consists of a 20-minute presentation given by the student on the proposed thesis work followed by a question period where the student is examined on their proposal and their mastery of concepts in environmental science. The emphasis will be on the theory and proposed approach, rather than on progress to date. A negative outcome requires that the student retake the exam within four months after incorporating recommendations from the committee for improving the thesis research proposal. The outcome of the second exam will be either a pass or withdrawal from the program.

Program Length

- 4 years full-time; 5 years transfer-from-master's (some students may take longer to complete the program)

Time Limit

- 6 years full-time; 7 years transfer-from-master's

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Graduate Department of Physical and Environmental Sciences' additional admission requirements stated below.
- In the case of exceptional students, applicants may be accepted into the PhD program by direct entry; that is, after completing an honours BSc degree in a related discipline with a minimum University of Toronto average of A– or equivalent.

Program Requirements

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  - A mandatory 0.5 FCE (EES2200H Advanced Seminar in Environmental Science) plus 2.5 FCEs to provide background for the student’s research. Courses selected must be approved by the student's supervisor and the Graduate Chair. In some cases, additional courses may be required if a student's preparedness is assessed as being insufficient.
  - Students may apply to take a number of PhD-level courses taught by the core faculty within the Graduate Department of Physical and Environmental Sciences. Courses taught by faculty outside the Graduate Department of Physical and Environmental Sciences can be considered as part (up to 1.0 FCE) of their 2.5 FCEs for the degree. However, all courses for the PhD degree must be approved by the student's supervisor and the Graduate Chair.

- **Thesis.** The execution of an original piece of research in environmental science carried out under faculty supervision and presented in thesis form. The program requires the development and submission of a thesis proposal, and its examination in an oral thesis proposal appraisal (before the end of Year 2), a departmental oral examination of the completed thesis, and a Doctoral Final Oral Examination (FOE) carried out under the auspices of the School of Graduate Studies (SGS) involving examination by an appropriate at-arms-length external examiner.

  - The PhD proposal appraisal consists of a 20-minute presentation given by the student on the proposed thesis work followed by a question period where the student is examined on their proposal and their mastery of concepts in environmental science. The emphasis will be on the theory and proposed approach, rather than on progress to date. A negative outcome requires that the student retake the exam within four months after incorporating recommendations from the committee for improving the thesis research proposal. The outcome of the second exam will be either a pass or withdrawal from the program.

Program Length

- 5 years full-time

Time Limit

- 7 years full-time

Physical and Environmental Sciences: Environmental Science PhD Courses

Core Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EES2200H</td>
<td>Advanced Seminar in Environmental Science</td>
</tr>
</tbody>
</table>

The following are courses offered within the Department of Physical and Environmental Sciences. With the approval of the Graduate Chair, relevant courses from other graduate departments can be applied to the required full-course equivalents. Not all courses are offered every year.
### Elective Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EES1102H</td>
<td>Analytical Chemistry for Geoscientists</td>
</tr>
<tr>
<td>EES1103H</td>
<td>Field Measurements and Sampling: The Essentials</td>
</tr>
<tr>
<td>EES1104H</td>
<td>Microorganisms and the Environment</td>
</tr>
<tr>
<td>EES1105H</td>
<td>Soil Contamination Chemistry</td>
</tr>
<tr>
<td>EES1106H</td>
<td>Geological Evolution and Environmental History of North America</td>
</tr>
<tr>
<td>EES1109H</td>
<td>Advanced Techniques in Geographic Information Systems</td>
</tr>
<tr>
<td>EES1111H</td>
<td>Freshwater Ecology and Biomonitoring</td>
</tr>
<tr>
<td>EES1112H</td>
<td>Contaminant Cycling in Transboundary Environments</td>
</tr>
<tr>
<td>EES1113H</td>
<td>Groundwater Hydrochemistry and Contaminant Transport</td>
</tr>
<tr>
<td>EES1117H</td>
<td>Climate Change Impact Assessment</td>
</tr>
<tr>
<td>EES1118H</td>
<td>Fundamentals of Ecological Modelling</td>
</tr>
<tr>
<td>EES1119H</td>
<td>Quantitative Environmental Analysis</td>
</tr>
<tr>
<td>EES1120H</td>
<td>Fluid Dynamics of Contaminant Transport</td>
</tr>
<tr>
<td>EES1121H</td>
<td>Modeling the Fate of Organic Chemicals in the Environment</td>
</tr>
<tr>
<td>EES1122H</td>
<td>Global Sustainability</td>
</tr>
<tr>
<td>EES1126H</td>
<td>Hydrology and Watershed Management</td>
</tr>
<tr>
<td>EES1127H</td>
<td>Applied Biogeochemistry and Geomicrobiology</td>
</tr>
<tr>
<td>EES1128H</td>
<td>Biophysical Interactions in Managed Environments</td>
</tr>
<tr>
<td>EES1131H</td>
<td>Applied Climatology (exclusion: EESD31H3)</td>
</tr>
<tr>
<td>EES1132H</td>
<td>Climate Data Analysis (exclusion: EESD21H3)</td>
</tr>
<tr>
<td>EES1133H</td>
<td>Climate Change Science and Modelling</td>
</tr>
<tr>
<td>EES1134H</td>
<td>Climate Change Policy</td>
</tr>
<tr>
<td>EES1135H</td>
<td>Environmental Change and Human Health</td>
</tr>
<tr>
<td>EES1136H</td>
<td>Climate Change Adaptation</td>
</tr>
<tr>
<td>EES1137H</td>
<td>Quantitative Applications for Data Analysis</td>
</tr>
<tr>
<td>EES1139H</td>
<td>Perspectives in Environmental Health: Mechanisms of Toxicity</td>
</tr>
<tr>
<td></td>
<td>(Prerequisites: at least one undergraduate course in each of the following areas: Introduction to Human Biology or equivalent; Biological Determinants of Health or equivalent; Introduction to Epidemiology or equivalent; and Environmental Health or Toxicology or equivalent.)</td>
</tr>
<tr>
<td>EES2201H</td>
<td>Advanced Readings in Environmental Science</td>
</tr>
<tr>
<td>EES3000H</td>
<td>Applied Conservation Biology</td>
</tr>
<tr>
<td>EES3001H</td>
<td>Professional Scientific Literacy</td>
</tr>
<tr>
<td>EES3002H</td>
<td>Conservation Policy</td>
</tr>
<tr>
<td>EES3003H</td>
<td>Topics in Applied Biodiversity</td>
</tr>
<tr>
<td>EES3111H</td>
<td>Conservation Genetics</td>
</tr>
<tr>
<td>EES3113H</td>
<td>Topics in Population and Community Ecology</td>
</tr>
<tr>
<td>EES3114H</td>
<td>Topics in Urban and Rural Ecology</td>
</tr>
</tbody>
</table>
Physical Therapy

Physical Therapy: Introduction

Faculty Affiliation

Medicine

Degree Programs

Physical Therapy

MScPT

Overview

The Department of Physical Therapy is committed to educating future and current physical therapists, advancing practice, fostering leadership, and contributing to our communities. Graduates from the Master of Science in Physical Therapy (MScPT) program are improving the health of individuals through the discovery, application, and exchange of knowledge.

Contact and Address

Web: www.physicaltherapy.utoronto.ca
Email: physther.facmed@utoronto.ca
Telephone: (416) 946-8641
Fax: (416) 946-8562

Department of Physical Therapy
University of Toronto
Room 160, 500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Physical Therapy: Graduate Faculty

Full Members

Agur, Anne - BSc, MSc, PhD
Brooks, Dina - BSc(PT), MSc, PhD
Gibson, Barbara - MSc, BMR(PT), PhD
Jaglal, Susan - BSc, MSc, PhD *(Chair and Graduate Chair)*
Mathur, Sunita - BSc(PT), MSc(PT), PhD
Musselman, Kristin - MSc(PT), PhD
Nixon, Stephanie - BHSc(PT), BA, MSc, PhD
O'Brien, Kelly - BSc(PT), BS, PhD
Patterson, Kara - BSc, BPT, MSc, PhD
Reid, Darlene - BMR(PT), PhD
Salbach, Nancy - BSc(PT), BS, MSc, PhD
Zabjek, Karl - BSc, MClSc, PhD

Members Emeriti

Verrier, Molly - DipOT, MHScc
Yoshida, Karen - BSc, BPHE, MSc, PhD

Associate Members

Gabison, Sharon - BSc, BSc(PT), MSc
Mori, Brenda - BSc(PT), MSc, PhD
Shaw, Jay - BHK, MSc(PT), PhD
Switzer-Mcintyre, Sharon - BSc, BPHE, MEd, PhD
Wickerson, Lisa - BSc(PT), BSc(PT), MSc, PhD
Yeung, Euson - BSc(PT), MEd, PhD

Physical Therapy: Physical Therapy MScPT

Master of Science in Physical Therapy

Program Description

24-Month Option

The MScPT is a 24-month professional program leading to entry to practice. The program is accredited by Physiotherapy Education Accreditation Canada (PEAC) and more information about accreditation is available on the Department of Physical Therapy's website. Graduates will be eligible to write the Physiotherapy Competency Examination (PCE), administered by the Canadian Alliance of Physiotherapy Regulators, which qualifies them to practise physical therapy in Canada. Graduates will be eligible to register in the Canadian Physiotherapy Association and the Colleges of Physiotherapy in all Canadian provinces.

12-Month Option

Admissions to the 12-month advanced-standing option have been administratively suspended.

The Master of Science in Physical Therapy, Advanced-Standing Option allows eligible physical therapists with a bachelor's degree in physiotherapy to acquire the master's degree in an online environment with on-campus residency. There is a strong focus on research and best practices integrated throughout the program.

MScPT Program (24-Month Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Physical Therapy's additional admission requirements stated below.
- Applicants are considered if they hold an appropriate bachelor's degree with high academic standing from a recognized university, with a minimum mid-B average in the final year.
- Prerequisite courses include human vertebrate physiology (0.5 full-course equivalent [FCE]); human anatomy (0.5 FCE); life and/or physical sciences (1.0 FCE); social sciences, and/or humanities, and/or languages (1.0 FCE); and statistics or research methods (0.5 FCE). A minimum grade of B– (or 70%) in each of these courses, as per the grade recorded on the transcript, is required.
• Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduated from a university where the language of instruction and examination was not English. The department prefers the Test of English as a Foreign Language (TOEFL):
  o Paper-based test: a minimum score of 600, with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  o Internet-based test: a minimum score of 100/120 overall, and 22/30 on the writing and speaking sections.
  o TOEFL candidates must request that results be sent to institution code 0982.
  o Results are due by March 1 of the application year.
• Complete a mandatory, computer-based situational judgment test (CASPer) to assist with the selection process. CASPer assesses for non-cognitive skills and interpersonal characteristics that are important for successful students and graduates of the program. Please refer to the Physical Therapy website for details on how the results are used in the admission process.
• Applicants can apply online using the Ontario Rehabilitation Sciences Programs Application Service (ORPAS). Visit the Physical Therapy and the ORPAS websites for more information regarding application requirements and document submissions including the CASPer test, Computer Administered Profile, confidential assessment forms, reference letters, prerequisites, etc.

Program Requirements

• Coursework. Students must complete 18.75 full-course equivalents (FCEs) over two years of continuous, full-time study.
  Included within the program structure are 30 weeks of full-time clinical internships.
  Students are required to complete all courses included in the required course list below.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years

MScPT Program (12-Month Advanced-Standing Option)

Admissions have been administratively suspended.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Physical Therapy's additional admission requirements stated below.
• Applicants who are eligible physical therapists will be considered if they have completed an appropriate bachelor's degree in physiotherapy with a minimum mid-B average in the final year.

• Applicants must have successfully completed the national Canadian Physiotherapy Competency Examination (with the exception of individuals licensed to practise in Quebec) and be licensed for independent practice in Canada with a provincial regulating body.
• Proficiency in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English and who graduated from a university where the language of instruction and examination was not English. The department prefers the Test of English as a Foreign Language (TOEFL):
  o Paper-based test: a minimum score of 600, with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  o Internet-based test: a minimum score of 100/120 overall, and 22/30 on the writing and speaking sections.
• Applicants apply using the SGS Online Admissions Application system. Visit the Physical Therapy website for more information on application requirements and document submissions.

Program Requirements

• Students must complete this program option in an online environment with mandatory on-campus residency requirements.
• Students must attend unit 6 PHT1006Y (0.75 FCE) and unit 12 PHT1012Y (1.0 FCE) in on-campus residency periods.
• Students must complete unit 10 PHT1010Y, a group research project, via online format (0.75 FCE).
• Students must complete PHT1016H Evidence Based Practice in Physical Therapy (0.5 FCE).
• Complete an elective course (0.5 FCE) either online or on campus.
  For information on units of instruction, please visit the Physical Therapy website.
• Students must complete the program option in an online environment. In addition, there are two mandatory on-campus residencies, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

3 sessions (typical registration sequence: F/W/S)

Time Limit

3 years
## Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHT1101H</td>
<td>Critical Foundations of Physical Therapy</td>
</tr>
<tr>
<td>(0.5 FCE)</td>
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</tr>
<tr>
<td>PHT1102Y</td>
<td>Physical Therapy Practice I</td>
</tr>
<tr>
<td>(3.0 FCEs)</td>
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</tr>
<tr>
<td>PHT1103Y</td>
<td>Physical Therapy Practice II</td>
</tr>
<tr>
<td>(3.0 FCEs)</td>
<td></td>
</tr>
<tr>
<td>PHT1104Y*</td>
<td>Physical Therapy Practice III</td>
</tr>
<tr>
<td>(3.0 FCEs)</td>
<td></td>
</tr>
<tr>
<td>PHT1105Y</td>
<td>Clinical Internship I (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>(0.75 FCE)</td>
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<tr>
<td>PHT1106H</td>
<td>Advanced Critical Thinking in Physical Therapy</td>
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<tr>
<td>PHT1107H</td>
<td>Scholarly Practice I</td>
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<tr>
<td>(0.5 FCE)</td>
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<tr>
<td>PHT1108Y</td>
<td>Clinical Internship II (Honours/Pass/Fail)</td>
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<td>(0.75 FCE)</td>
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<tr>
<td>PHT1109Y</td>
<td>Clinical Internship III (Honours/Pass/Fail)</td>
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<tr>
<td>(0.75 FCE)</td>
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<tr>
<td>PHT1110Y</td>
<td>Physical Therapy Practice IV</td>
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<td>(3.0 FCEs)</td>
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<tr>
<td>PHT1111H</td>
<td>Selected Topics in Physical Therapy</td>
</tr>
<tr>
<td>(0.5 FCE)</td>
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<tr>
<td>PHT1112Y</td>
<td>Clinical Internship IV (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>(0.75 FCE)</td>
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</tr>
<tr>
<td>PHT1113Y</td>
<td>Scholarly Practice II</td>
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<tr>
<td>(1.0 FCE)</td>
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<tr>
<td>PHT1114Y</td>
<td>Clinical Internship V (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>(0.75 FCE)</td>
<td></td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Physics

Physics: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Physics

MSc

- Dual Degree Programs:
  - Master of Science in Physics (University of Toronto) / Master in Physics (Sapienza Università di Roma) / Master in Physics (Université Paris-Saclay);
  - Master of Science in Physics (University of Toronto) / Master in Physics (Sapienza Università di Roma) / Master in Physics (Universidade do Porto)

PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Biomedical Engineering
  - Physics, MSc, PhD

- Environmental Studies
  - Physics, MSc, PhD

Overview

The Department of Physics carries out research in experimental and theoretical physics in the following fields: atomic and molecular physics; biological physics; earth, atmospheric, and planetary physics; quantum optics and quantum information; quantum condensed matter physics; and subatomic physics and astrophysics. The department is involved in many collaborative efforts and has close ties to institutes worldwide.

Contact and Address

Web: [www.physics.utoronto.ca](http://www.physics.utoronto.ca)
Email: grad@physics.utoronto.ca
Telephone: (416) 978-2945
Fax: (416) 978-1547

Department of Physics
University of Toronto
Room 315, McLennan Physical Labs
Toronto, Ontario M5S 1A7
Canada

Physics: Graduate Faculty

Full Members

Abbatt, Jonathan - BSc, PhD
Barzda, Virginijus - BS, DSc
Bond, J. Richard - BSc, MS, PhD, FRSC, FRS
Curtin, David - BSc, MSc, PhD
de la Barrera, Sergio - BS, MS, PhD
Dhiri, Al-Amin - MSc, PhD
Diamond, Miriam - BSc, MSc, PhD
Donaldson, D. James - PhD
Essick, Reed - PhD
Fishbach, Maya - PhD
Goyal, Sidhartha - BTech, MS, PhD
Gradinariu, Claudiu - PhD
Grisoni, Nicola - BSc, MSc, PhD
Hilfinger, Andreas - MA, MSc, PhD
Hong, Ziqing - BS, MS, PhD
Ilc, Nikola - BSc, PhD
James, Daniel - BA, PhD
John, Sajeet - SB, PhD, FRSC
Jones, Dylan - BA, SM, PhD
Kee, Hae-Young - BS, MS, PhD
Kim, Yong Baek - BSc, MSc, PhD, FRSC
Kim, Young-Soon - BS, PhD
Kollmeier, Juna - PhD
Krieger, Peter - BSc, MSc, PhD
Kushner, Paul - BSc, MSc, PhD
Lee, Christopher - BA, MSc, DPhil
Liu, Qinya - BSc, PhD
Lo, Ho-Kwong - BA, MA, MS, PhD
Lowman, Julian - BSc, MSc, DPhil
Luke, Michael - BSc, AM, PhD
Marjoribanks, Robin - BSc, MSc, MSc, PhD
McMillen, David - BSc, MS, PhD
Menou, Kristen - BSc, MS, ScD
Miller, R. J. Dwayne - BSc, PhD
Milstein, Josh - BS, PhD
Moore, GWK - BSc, PhD
Murray, Norman - BSc, PhD, CRC
Netterfield, C. Barth - BSc, PhD
Orr, Robert - BSc, PhD, ARCS
Paramekanti, Arun - BTech, PhD
Peet, A.W. - BSc, PhD
Peltier, W. Richard - BSc, MSc, PhD, FRSC
Pen, Ue-Li - BSc, PhD
Poppitz, Erich - MA, MSc, PhD
Pysklywec, Russell - BSc, MSc, PhD
Rauscher, Sarah - BSc, PhD
Rein, Hanno - MS, DPhil
Ryu, William - AB, PhD
Savard, Pierre - BSc, MSc, PhD
Scaffidi, Thomas - BSc, BE, MSc, PhD
Segal, Dvira - BSc, DSc
Sinervo, Pekka - BSc, PhD, FRSC
Sipe, John - BSc, MSc, PhD, FRSC
Steinberg, Aephraim - BS, MA, PhD, FRSC
Strong, Kimberly - BSc, DPhil, FRSC (Chair and Graduate Chair)
Su, Zhan - BS, PhD
Swidinsky, Andrei - BSc, MSc, PhD
Teuscher, Richard - BSc, MSc, PhD
Thompson, Christopher - BSc, PhD
Thywissen, Joseph - BS, SM, PhD (Associate Chair, Graduate Studies)
Trischuk, William - BSc, PhD
Valencia, Diana - BS, MS, ScD
Vanderlinde, Keith - PhD
von Lilienfeld Toal, Anatole - PhD
Vutha, Amar C. - MSc, PhD
Walker, Kaley - BSc, PhD
Wei, John - BA, MS, PhD
Wells, Mathew - BS, DPhil
Wiebe, Nathan - PhD
Wunch, Debra - BSc, MSc, PhD
Zilman, Anton - BSc, MSc, PhD

Members Emeriti
Bailey, David - BSc, PhD
Holdom, Bob - BSc, MA, PhD
Milkereit, Bernd - DrRerNat
Morris, Stephen - BSc, MSc, PhD
West, Gordon - BASc, MA, PhD

Associate Members
Carrasquilla Alvarez, Juan Felipe - MPH, PhD
Deyirmenjian, Vatche Berj - BSc, PhD
Mariani, Zen - BSc, MSc, PhD
Polavarapu, Saroja - PhD
Rayner, Peter - BSc, PhD
Vogel, Felix - MSc, PhD
Whaley, Cynthia - BSc, MSc, MSc, PhD

Physics: Physics MSc

Master of Science

Admissions to Option 3: Coursework plus MSc Research Thesis have been administratively suspended.

Program Description

The MSc program is directed primarily to qualified students seeking a career in scientific research, with an emphasis on doctoral-stream studies. The MSc can be taken both with or without a thesis, the latter being the norm.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Physics' additional admission requirements stated below.
- An appropriate bachelor's degree with a final-year average equivalent to at least a University of Toronto mid-B.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

- Students normally complete the program requirements in one of three ways:
  - Option 1: Coursework plus MSc Research Report:
    - graduate lecture courses (3.0 full-course equivalents [FCEs]):
    - a Research Report, which consists of a 6000-series research course appropriate to the field of physics (1.0 FCE) and PHY3400Y (1.0 FCE).
  - Option 2: Coursework plus MSc Research Project:
    - graduate lecture courses (2.0 FCEs);
    - a 6000-series research course appropriate to the field of physics (1.0 FCE);
    - a Research Project, which consists of a 7000-series seminar course appropriate to the field of physics (1.0 FCE) and PHY3400Y (1.0 FCE).
  - Option 3: Coursework plus MSc Research Thesis:
    - graduate lecture courses (2.0 FCEs);
    - thesis;
    - selection of the program is made by the student and faculty advisor in consultation with the Associate Chair.
- MSc students are expected to attend the weekly general colloquium conducted by the department.
- The residence requirement is one year, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Physics: Physics MSc (Dual Degree: MSc / Master in Physics (Sapienza Università di Roma; Université Paris-Saclay))

Dual Degree Program: Master of Science in Physics (University of Toronto) / Master in Physics (Sapienza Università di Roma) / Master in Physics (Université Paris-Saclay)

Program Description

The University of Toronto MSc in Physics participates in the Erasmus Mundus Joint Master (EMJM) program of the QUAntum Research Master Education Network (QUARMEN). This dual degree program provides a pathway for students to complete degrees at the Université Paris-Saclay (France) and Università degli Studi di Roma “La Sapienza” (Italy). At the University of Toronto, students complete the Master of Science (MSc) in Physics’ Option 2: Coursework plus MSc Research Project. Students are not eligible to take the other options.

In the Fall session of Year 1, students register in the Laurea Magistrale in Fisica at Sapienza Università di Roma. In the Winter and Summer sessions of Year 1, students register in the Master de physique at Université Paris-Saclay.
In Year 2, students attend all three sessions (Fall, Winter, Summer) at the University of Toronto and complete Option 2 of the MSc in Physics.

Upon successful completion of the degree program, students who participate in EMJM and attend the University of Toronto as part of their participation in QUARMEN will receive three parchments, including the MSc in Physics degree from the University of Toronto.

Contact

Master of Science in Physics Program
Department of Physics, University of Toronto
Email: grad@physics.utoronto.ca

Master of Physics (Le Master de physique) Program
Université Paris-Saclay
Email: master.quarmen@universite-paris-saclay.fr

Application Process

- Applicants must apply through the QUARMEN admissions website. Applicants are then jointly selected and admitted by a Selection Board composed of at least one appointed faculty member from each partner institution.
- All applicants who are admitted to the dual degree program must then also complete the application on U of T’s School of Graduate Studies online admissions application system.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the regular admission requirements of the MSc in Physics and the overall admission requirements of QUARMEN.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Physics: Physics MSc (Dual Degree: MSc / Master in Physics (Sapienza Università di Roma; Universidade do Porto))

Dual Degree Program: Master of Science in Physics (University of Toronto) / Master in Physics (Sapienza Università di Roma) / Master in Physics (Universidade do Porto)

Program Description

The University of Toronto MSc in Physics participates in the Erasmus Mundus Joint Master (EMJM) program of the QUAntum Research Master Education Network (QUARMEN). This dual degree program provides a pathway for students to complete degrees at Universidade do Porto (Portugal) and Università degli Studi di Roma "La Sapienza" (Italy). At the University of Toronto, students complete the Master of Science (MSc) in Physics’ Option 2: Coursework plus MSc Research Project. Students are not eligible to take the other options.

In the Fall session of Year 1, students register in the Laurea Magistrale in Fisica (Master’s Degree in Physics) at Sapienza Università di Roma. In the Winter and Summer sessions of Year 1, students register in the Mestrado em Física (Master in Physics) at Universidade do Porto (Portugal). In Year 2, students attend all three sessions (Fall, Winter, Summer) at the University of Toronto and complete Option 2 of the MSc in Physics.

Upon successful completion of the degree program, students who participate in EMJM and attend the University of Toronto as part of their participation in QUARMEN will receive three parchments, including the MSc in Physics degree from the University of Toronto.

Contact

Master of Science in Physics Program
Department of Physics, University of Toronto
Email: grad@physics.utoronto.ca

Master of Physics (Le Master de physique) Program
Université Paris-Saclay
Email: master.quarmen@universite-paris-saclay.fr

Application Process

- Applicants must apply through the QUARMEN admissions website. Applicants are then jointly selected and admitted by a Selection Board composed of at least one appointed faculty member from each partner institution.
- All applicants who are admitted to the dual degree program must then also complete the application on U of T’s School of Graduate Studies online admissions application system.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the regular admission requirements of the MSc in Physics and the overall admission requirements of QUARMEN.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Physics: Physics PhD

Doctor of Philosophy

Program Description

The Department of Physics offers excellent quality and breadth of research fields. Its internationally leading research teams, in both theory and experiment, operate across a broad spectrum of topics as well as collaborative specializations in interdisciplinary subjects. Graduates work in government, industry, and education around the world.
Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master’s degree; 2) direct entry after completing a bachelor’s degree.

**PhD Program**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Physics’ additional admission requirements stated below.
- An appropriate University of Toronto master’s degree with an average of at least B+ or demonstrated comparable research competence.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

**Program Requirements**

- The core of the PhD program is an original investigation, the results of which are embodied in a thesis. Lecture courses constitute a subsidiary but important part of the program. Consult the department for details.
- Complete **3.0 full-course equivalents (FCEs)**: graduate lecture courses and a thesis.
- Students must complete a **qualifying oral examination** within 20 months. Students who fail at the first attempt have the opportunity to take the examination again within a time period specified by the examination committee.
- Students are expected to attend the weekly general colloquium conducted by the department.

**Program Length**

5 years

**Time Limit**

7 years

### Physics: Physics MSc, PhD Courses

All courses are not given every year. Please check the departmental brochure or website for course availability.

#### Introductory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY1460H</td>
<td>Nonlinear Physics</td>
</tr>
<tr>
<td>PHY1483H</td>
<td>Relativity Theory I</td>
</tr>
<tr>
<td>PHY1484H</td>
<td>Relativity Theory II</td>
</tr>
<tr>
<td>PHY1485H</td>
<td>Laser Physics</td>
</tr>
<tr>
<td>PHY1487H</td>
<td>Quantum Theory of Solids I</td>
</tr>
<tr>
<td>PHY1489H</td>
<td>Introduction to High Energy Physics</td>
</tr>
<tr>
<td>PHY1491H</td>
<td>Current Interpretations of Quantum Mechanics</td>
</tr>
<tr>
<td>PHY1493H</td>
<td>Seismology</td>
</tr>
<tr>
<td>PHY1498H</td>
<td>Introduction to Atmospheric Physics</td>
</tr>
</tbody>
</table>
## General Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY1500H</td>
<td>Statistical Mechanics</td>
</tr>
<tr>
<td>PHY1510H</td>
<td>Electromagnetism</td>
</tr>
<tr>
<td>PHY1520H</td>
<td>Quantum Mechanics</td>
</tr>
<tr>
<td>PHY1530H</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>PHY1540H</td>
<td>Mathematical Methods in Physics</td>
</tr>
</tbody>
</table>

## Professional Development

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY1600H</td>
<td>Effective Communication for Physicists</td>
</tr>
<tr>
<td>PHY1610H</td>
<td>Scientific Computing for Physicists</td>
</tr>
</tbody>
</table>

## Specialized Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY2108H</td>
<td>Special Topics in Physics (0.25 FCE)</td>
</tr>
<tr>
<td>PHY2109H</td>
<td>Special Topics in Physics (0.25 FCE)</td>
</tr>
<tr>
<td>PHY2202H</td>
<td>Atomic and Molecular Physics</td>
</tr>
<tr>
<td>PHY2203H</td>
<td>Quantum Optics I</td>
</tr>
<tr>
<td>PHY2204H</td>
<td>Quantum Optics II</td>
</tr>
<tr>
<td>PHY2205H</td>
<td>Special Topics in Quantum Optics</td>
</tr>
<tr>
<td>PHY2206H</td>
<td>Special Topics in Quantum Optics</td>
</tr>
<tr>
<td>PHY2208H</td>
<td>Nonlinear Optics</td>
</tr>
<tr>
<td>PHY2212H</td>
<td>Entanglement Physics</td>
</tr>
<tr>
<td>PHY2303H</td>
<td>Quantum Theory of Solids II</td>
</tr>
<tr>
<td>PHY2314H</td>
<td>Special Topics in Condensed Matter Physics</td>
</tr>
<tr>
<td>PHY2315H</td>
<td>Advanced Statistical Mechanics</td>
</tr>
<tr>
<td>PHY2321H</td>
<td>Many Body Physics I</td>
</tr>
<tr>
<td>PHY2322H</td>
<td>Many Body Physics II</td>
</tr>
<tr>
<td>PHY2403H</td>
<td>Quantum Field Theory I</td>
</tr>
<tr>
<td>PHY2404H</td>
<td>Quantum Field Theory II</td>
</tr>
<tr>
<td>PHY2405H</td>
<td>Experimental High Energy Physics</td>
</tr>
<tr>
<td>PHY2406H</td>
<td>Special Topics in Particle Physics</td>
</tr>
<tr>
<td>PHY2407H</td>
<td>Special Topics in Particle Physics</td>
</tr>
<tr>
<td>PHY2408H</td>
<td>Phenomenology of the Standard Model</td>
</tr>
<tr>
<td>PHY2502H</td>
<td>Climate System Dynamics</td>
</tr>
<tr>
<td>PHY2504H</td>
<td>Advanced Atmospheric Dynamics</td>
</tr>
<tr>
<td>PHY2505H</td>
<td>Atmospheric Radiative Transfer and Remote Sounding</td>
</tr>
<tr>
<td>PHY2506H</td>
<td>Data Assimilation and Retrieval Theory</td>
</tr>
<tr>
<td>PHY2509H</td>
<td>Special Topics in Atmospheric Physics</td>
</tr>
<tr>
<td>PHY2603H</td>
<td>Inverse Theory</td>
</tr>
<tr>
<td>PHY2609H</td>
<td>Planetary Physics</td>
</tr>
<tr>
<td>PHY2707H</td>
<td>Cellular and Molecular Biophysics I</td>
</tr>
<tr>
<td>PHY2708H</td>
<td>Cellular and Molecular Biophysics II</td>
</tr>
<tr>
<td>PHY2709H</td>
<td>Quantitative Biology of Systems, Organisms, and Populations</td>
</tr>
<tr>
<td>PHY2710H</td>
<td>Computational Methods in Biophysics</td>
</tr>
<tr>
<td>PHY2711H</td>
<td>Biophysical Techniques</td>
</tr>
<tr>
<td>PHY2720H</td>
<td>Special Topics in Biological Physics</td>
</tr>
<tr>
<td>PHY2721H</td>
<td>Special Topics in Biological Physics</td>
</tr>
</tbody>
</table>

## Report Course for MSc Students

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY3400Y*</td>
<td>Selected Topics in Physics</td>
</tr>
</tbody>
</table>

## Seminar Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY7001Y*</td>
<td>Atmospheric Physics Seminar</td>
</tr>
<tr>
<td>PHY7002Y*</td>
<td>Biophysics Seminar</td>
</tr>
<tr>
<td>PHY7003Y*</td>
<td>Condensed Matter Physics Seminar</td>
</tr>
<tr>
<td>PHY7004Y*</td>
<td>Geophysics Seminar</td>
</tr>
<tr>
<td>PHY7005Y*</td>
<td>Quantum Optics Seminar</td>
</tr>
<tr>
<td>PHY7007Y*</td>
<td>Subatomic Physics and Astrophysics Seminar</td>
</tr>
</tbody>
</table>

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*

## Research Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY6011Y</td>
<td>Research in Atmospheric Physics</td>
</tr>
<tr>
<td>PHY6021Y</td>
<td>Research in Biophysics</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>PHY6031Y</td>
<td>Research in Condensed Matter Physics</td>
</tr>
<tr>
<td>PHY6041Y</td>
<td>Research in Geophysics</td>
</tr>
<tr>
<td>PHY6051Y</td>
<td>Research in Quantum Optics</td>
</tr>
<tr>
<td>PHY6071Y</td>
<td>Research in Subatomic Physics and Astrophysics</td>
</tr>
</tbody>
</table>
Physiology

Physiology: Introduction

Faculty Affiliation

Medicine

Degree Programs

Medical Physiology

MHSc

Physiology

MSc and PhD

Combined Degree Programs

MD / PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Biomedical Engineering
  - Physiology, MSc, PhD
- Cardiovascular Sciences
  - Physiology, MSc, PhD
- Developmental Biology
  - Physiology, MSc, PhD
- Neuroscience
  - Physiology, MSc, PhD
- Resuscitation Sciences (admissions have been administratively suspended)
  - Physiology, MSc, PhD

Overview

In the Department of Physiology, research ranges from the gene level to the organism level in areas including endocrinology and diabetes; reproduction endocrinology; fetal physiology, pregnancy, and parturition; neuroendocrinology; cardiorespiratory regulation; gastrointestinal motility; sensory physiology; motor control; brain development and aging; ionic channels and synaptic transmission; excitability, ultrastructure, and plasticity of the brain.

Contact and Address

MHSc Program

Web: www.physiology.utoronto.ca
Email: mhsc.physiology@utoronto.ca
Telephone: (416) 978-6843
Fax: (416) 978-4940

Department of Physiology
University of Toronto
Room 3209, Medical Sciences Building
1 King's College Circle
Toronto, Ontario M5S 1A8
Canada

MSc and PhD Programs

Web: www.physiology.utoronto.ca
Email: graduate.physiology@utoronto.ca
Telephone: (416) 978-2601
Fax: (416) 978-4940

Department of Physiology
University of Toronto
Room 3217, Medical Sciences Building
1 King's College Circle
Toronto, Ontario M5S 1A8
Canada

Physiology: Graduate Faculty

Full Members

Adeli, Khosrow - DipChem, MSc, PhD
Anderson, Harvey - BSc, MSc, PhD
Bagli, Darius - BS, MD
Barr, Cathy - BSc, PhD
Bear, Christine - BSc, MSc, PhD
Belik, Jaques - MD
Belsham, Denise - PhD
Billia, Filio - BSc, MSc, MD, PhD
Bolz, Steffen-Sebastian - MD, DrMed
Brown, Theodore - BSc, PhD
Brubaker, Patricia - BSc, PhD
Caniggia, Isabella - MD, PhD
Carlen, Peter - MD
Cherney, David - MD, PhD
Collingridge, Graham - BSc, PhD
Connelly, Kim - MBBS, PhD
Cox, Brian - BSc, MSc, PhD
Dimitrijevic, Andrew - BSc, MSc, PhD
dos Santos, Claudia - MSc, MD
Duffin, James - BASc, MASc, PhD
Eubanks, James - BSc, AA, PhD
Feng, Zhong-Ping - PhD (Graduate Coordinator, Student Admissions and Affairs)
Fisher, Joseph - MD
Frankland, Paul - MA, PhD
Gaisano, Herbert - BS, MD
Giacca, Adria - MD
Gillis, Jesse - BSc, MSc, PhD
Goldenberg, Neil - BSc, MD, PhD
Gollob, Michael - MD
Gramolini, Anthony - BSc, MSc, PhD (Graduate Coordinator, Academic Affairs)
Hare, Gregory - MD, PhD
Harrison, Robert - PhD, DSc
Hay, Elroy - BSc, MSc, PhD
Heximer, Scott - PhD (Chair and Graduate Chair)
Hill, Sean - BA, PhD
Horne, Richard - BSc, PhD
Husain, Mansoor - MB, MD
Hutchison, William Duncan - BSc, MSc, PhD
Jia, Zhengping - PhD
Jin, Tianru - PhD
Physiology: Medical Physiology MHSc

Master of Health Science

Program Description

A near-infinite amount of data is generated by clinicians at the bedside, researchers at the bench, and emergent health technologies every single day. But who can interpret that data and render it relevant for use?

The MHSc in Medical Physiology is a 12-month professional master’s program specially designed to address this rapidly emerging need. Featuring core courses and electives led by the Department of Physiology’s world-class faculty, the program also includes significant professional development training and culminates with a practicum in an industry, hospital, or government setting.

The program blends advanced topic-specific physiology courses of the students’ choosing with:

- a mentored current literature review, where graduates acquire the critical analysis skills to identify new knowledge relevant to specific problems in human health;
- a big data and health course, where students gain the skills to analyze and interpret data sets relevant to human health;
- a commercialization and collaboration course, where students will acquire skills to understand how to commercialize new discoveries and how to work in a team science environment; and
- a practicum opportunity, where students will experience how physiological knowledge is applied to real-life scenarios in their area of interest.

This unique combination of coursework and hands-on experience ensures that graduates are equipped with the knowledge and skills sought by today’s competitive health-related workforce.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Physiology's additional admission requirements stated below.
- Admission is based on demonstrated exceptional scholarly achievement based on the following criteria:
  - a one-page statement summarizing how this program will contribute to the advancement of the applicant’s professional goals
  - a curriculum vitae (CV)
  - two letters of reference.
- Applicants must have an appropriate bachelor's degree from a recognized university with an average of at least A– in the last two years of study. Students must have completed at least third year-level physiology or equivalent courses and demonstrate an interest in physiology.
- Selected applicants will be interviewed prior to final acceptance into the program.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English, must demonstrate proficiency in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
  - Other English proficiency tests are acceptable. Please consult the Physiology website for departmental standards.

Program Requirements

All students are required to:

- Take 6.0 full-course equivalents (FCEs) in physiology courses:
  - 1.0 FCE: PSL4000Y Seminars and Graduate Professional Development (Credit/No Credit)
  - 1.0 FCE: PSL4010Y Mentored Literature Review Project in Physiology
  - 1.0 FCE: PSL4020Y Medical Physiology Practicum (Credit/No Credit)
  - 0.5 FCE: PSL4030H Clinical Physiology
  - 0.5 FCE: PSL4040H Big Data and Health
  - 0.5 FCE: PSL4050H Collaboration and Commercialization in Physiology
  - 1.5 elective FCEs.

Students will be matched with a mentor and practicum placement in consultation with the relevant course director and MHSc program director.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Physiology: Physiology MSc

Master of Science

Program Description

The MSc program provides advanced training in physiology, with an emphasis on gaining experience in conducting research using modern experimental methods under the direct supervision of a member of the department’s graduate faculty. Students will complete coursework, attend and give presentations of scientific work, submit a written thesis based on original research, and defend the thesis at an oral examination. It is not required that the thesis work be published or represent a finished research project, but it must show the student’s mastery of specific techniques, their application to a specific problem, and a scholarly understanding of the research subject. Through this program, students will broaden and deepen their knowledge of physiology and its current scientific literature. They will learn and practise scientific skills of critical thinking, devising research questions, and communicating scientific ideas orally and in writing.

Students may begin in Fall, Winter, or Summer.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Physiology’s additional admission requirements stated below.
- Admission is based on academic record, an essay summarizing background strengths and scientific aims, a curriculum vitae (CV), and at least two confidential letters of reference.
- Applicants must have an appropriate bachelor’s degree from a recognized university with an average of at least A– in the last two years of study and with courses such as biology, biochemistry, calculus, organic and physical chemistry, general physics, and physiology.
- Physical-science-stream students from undergraduate programs in physics, mathematics, engineering, and other sciences are encouraged to apply to the MSc program.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English, must demonstrate proficiency in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
  - Other English proficiency tests are acceptable. Please consult the Physiology website for departmental standards.

Program Requirements

All students are required to:

- Take 1.5 full-course equivalents (FCEs) in physiology courses, with the following guidelines:
Students may begin or transfer in Fall, Winter, or Summer. Applicants may enter the PhD program via one of three routes:

1. Following completion of an appropriate MSc degree; 2) transfer from the University of Toronto MSc program in Physiology; or 3) direct entry after completing a bachelor’s degree. Students may be admitted into the PhD program after completion of an appropriate MSc degree program with an average of at least A– from a recognized university. Students with excellent research experience are encouraged to apply.

The PhD degree is an advanced research degree. Upon its completion, graduates are expected to function as independent research scientists. Students will complete coursework, attend and give multiple presentations of scientific work, and demonstrate the ability to carry out research of publishable quality as evidenced by a written thesis based on original research and an oral defence of the work. Through this program, students will broaden and deepen their knowledge of physiology and its current scientific literature. They will develop and practise scientific skills of critical thinking, devising research questions, understanding experimental design, techniques, and analysis, and communicating scientific ideas orally and in writing.

Admission is based on academic record, a statement summarizing background strengths and scientific aims, a curriculum vitae (CV), and at least two confidential letters of reference.

Applicants should have taken courses such as biology, biochemistry, calculus, organic and physical chemistry, general physics, and physiology.

Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English, must demonstrate proficiency in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with the following minimum scores:

- Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
- Other English proficiency tests are acceptable. Please consult the Physiology website for departmental standards.

### Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

### Time Limit

3 years full-time

*Course that may continue over a program. Credit is given when the course is completed.*

### Program Requirements

- Students must take 2.5 full-course equivalents (FCEs) in physiology courses in which an average standing of at least A– is maintained, with the following guidelines:
  - 0.5 FCE in PSL2000H³ MSc Seminars in Physiology (Credit/No Credit), mandatory for all graduate students in Physiology
  - 0.5 FCE in physiology graduate-only courses
  - 0.5 FCE with a choice of (i) a physiology graduate-only course or physiology joint graduate-undergraduate course (preferable option) or (ii) a course taken in another department (rare choice).

- Up to 1.0 FCE can be claimed from the student's MSc program completed in another department or university, subject to approval by the Graduate Studies Committee.

- Courses are selected in consultation with the supervisor and/or advisory committee. See the Physiology website for details.

- The recommended completion time for the doctoral program is approximately four years, by which time the candidate will write and defend a research thesis, first before a departmental committee and subsequently before a committee approved by the School of Graduate Studies.

### Program Length

4 years

### Doctor of Philosophy

The PhD degree is an advanced research degree. Upon its completion, graduates are expected to function as independent research scientists. Students will complete coursework, attend and give multiple presentations of scientific work, and demonstrate the ability to carry out research of publishable quality as evidenced by a written thesis based on original research and an oral defence of the work. Through this program, students will broaden and deepen their knowledge of physiology and its current scientific literature. They will develop and practise scientific skills of critical thinking, devising research questions, understanding experimental design, techniques, and analysis, and communicating scientific ideas orally and in writing.

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate MSc degree; 2) transfer from the University of Toronto MSc program in Physiology; or 3) direct entry after completing a bachelor’s degree.

Students may begin or transfer in Fall, Winter, or Summer.
PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Physiology’s additional admission requirements stated below.
- Admission is based on academic record, a statement summarizing background strengths and scientific aims, a curriculum vitae (CV), and at least two confidential letters of reference.
- For exceptional students with an A– standing in appropriate courses taken during the two preceding undergraduate years, direct entry into the doctoral program is possible. However, this will require specific approval by the Graduate Studies Committee. Students with excellent research experience are encouraged to apply.
- Applicants should have taken courses such as biology, biochemistry, calculus, organic and physical chemistry, general physics, and physiology.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction was not English, must demonstrate proficiency in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.
  - Other English proficiency tests are acceptable. Please consult the Physiology website for departmental standards.

Program Requirements

- Students must take 2.5 full-course equivalents (FCEs) in physiology courses in which an average standing of at least A– is maintained, with the following guidelines:
  - 0.5 FCE in PSL2000H0 PhD Seminars in Physiology (Credit/No Credit), mandatory for all graduate students in Physiology
  - 0.5 FCE in PSL1066H0 Research Grant Proposal (Credit/No Credit), mandatory for all PhD students in Physiology
  - 0.5 FCE in physiology graduate-only courses
  - 1.0 FCE with a choice of (i) a physiology graduate-only course or physiology joint graduate-undergraduate course (preferable option) or (ii) a course taken in another department (rare choice).
- Courses are selected in consultation with the supervisor and/or advisory committee. See the Physiology website for details on course requirements.
- The recommended completion time for the doctoral program is approximately five years from the start of the MSc, by which time the candidate will write and defend a research thesis, first before a departmental committee and subsequently before a committee approved by the School of Graduate Studies.

Program Length

5 years

Time Limit

7 years
Program Length

5 years

Time Limit

7 years

*Course that may continue over a program. Credit is given when the course is completed.

Physiology: Medical Physiology MHSc; Physiology MSc, PhD Courses

Not all courses are offered each year. Check the departmental website for course availability and course requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCV1060H</td>
<td>Developmental Cardiovascular Physiology</td>
</tr>
<tr>
<td>JCV3060H</td>
<td>Advanced Topics in Cardiovascular Sciences — Molecular Biology and Heart Signal Transduction</td>
</tr>
<tr>
<td>JCV3061H</td>
<td>Advanced Topics in Cardiovascular Sciences — Hormones</td>
</tr>
<tr>
<td>JCV3062H</td>
<td>Advanced Research in Cardiovascular Sciences — Heart Function</td>
</tr>
<tr>
<td>JCV3063H</td>
<td>Advanced Research in Cardiovascular Sciences — Vascular</td>
</tr>
<tr>
<td>JCV3064H</td>
<td>Advanced Research in Cardiovascular Sciences — Microvascular Medicine</td>
</tr>
<tr>
<td>JCV3065H</td>
<td>Advanced Topics in Cardiovascular Sciences — Systems Biology</td>
</tr>
<tr>
<td>JPB1071H</td>
<td>Advanced Topics: Computational Neuroscience</td>
</tr>
<tr>
<td>JYG1555H</td>
<td>Advanced Topics: Cellular and Molecular Neurobiology</td>
</tr>
<tr>
<td>PSL1000H0</td>
<td>MSc Seminars in Physiology (Credit/No Credit)</td>
</tr>
<tr>
<td>PSL1014H</td>
<td>Advanced Topics: the Gastrointestinal Epithelium</td>
</tr>
<tr>
<td>PSL1024H</td>
<td>Advanced Topics: Neuroendocrinology</td>
</tr>
<tr>
<td>PSL1026H</td>
<td>Advanced Topics: Experimental Cell Physiology</td>
</tr>
<tr>
<td>PSL1034H</td>
<td>Advanced Topics: Metabolic Disorders</td>
</tr>
<tr>
<td>PSL1036H</td>
<td>Advanced Topics: Respiration</td>
</tr>
<tr>
<td>PSL1040H</td>
<td>Advanced Topics: Systems Biology in Physiology</td>
</tr>
<tr>
<td>PSL1047H</td>
<td>Advanced Topics: Somatosensory and Pain Neuroscience</td>
</tr>
<tr>
<td>PSL1050H</td>
<td>Advanced Topics: The Hippocampus from Cell to Behaviour</td>
</tr>
<tr>
<td>PSL1053H</td>
<td>Advanced Topics: Critical Assessment of Ion Channel Function</td>
</tr>
<tr>
<td>PSL1066H0</td>
<td>Research Grant Proposal (Credit/No Credit)</td>
</tr>
<tr>
<td>PSL1067H</td>
<td>Advanced Topics: Advances and Techniques in Developmental Physiology</td>
</tr>
<tr>
<td>PSL1068H</td>
<td>Advanced Topics: Molecular Basis of Behaviour</td>
</tr>
<tr>
<td>PSL1070H</td>
<td>Advanced Topics: Hormone Action</td>
</tr>
<tr>
<td>PSL1072H</td>
<td>Advanced Topics in the Neural Basis for Sensation</td>
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<tr>
<td>PSL1075H</td>
<td>Biology in Time</td>
</tr>
<tr>
<td>PSL1080H*</td>
<td>Advanced Topics: Investigative Developmental Physiology</td>
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<tr>
<td>PSL1086H</td>
<td>Comparative Systems Approach to Diving Physiology</td>
</tr>
<tr>
<td>PSL2000H0</td>
<td>PhD Seminars in Physiology (Credit/No Credit)</td>
</tr>
<tr>
<td>PSL4000Y</td>
<td>Seminars and Graduate Professional Development (Credit/No Credit)</td>
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<tr>
<td>PSL4010Y</td>
<td>Mentored Literature Review Project in Physiology</td>
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<tr>
<td>PSL4020Y</td>
<td>Medical Physiology Practicum (Credit/No Credit)</td>
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<tr>
<td>PSL4030H</td>
<td>Clinical Physiology</td>
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<tr>
<td>PSL4040H</td>
<td>Big Data and Health</td>
</tr>
<tr>
<td>PSL4050H</td>
<td>Collaboration and Commercialization in Physiology</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

Joint Graduate/Undergraduate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>JNR1444Y</td>
<td>Fundamentals of Neuroscience: Cellular and Molecular</td>
</tr>
<tr>
<td>JNS1000Y</td>
<td>Fundamentals of Neuroscience: Systems and Behaviour</td>
</tr>
<tr>
<td>PSL1421H</td>
<td>Pregnancy and Birth: From Implantation to Newborn Life</td>
</tr>
<tr>
<td>PSL1425H</td>
<td>Integrative Metabolism and Its Endocrine Regulation</td>
</tr>
<tr>
<td>PSL1432H</td>
<td>Theoretical Physiology</td>
</tr>
<tr>
<td>PSL1441H</td>
<td>Systems Level Neuroplasticity</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>PSL1445H</td>
<td>Mechanistic Molecular and Cellular Neuroscience</td>
</tr>
<tr>
<td>PSL1446H</td>
<td>Molecular and Cellular Aspects of Neural Disorders</td>
</tr>
<tr>
<td>PSL1452H</td>
<td>Fundamentals of Ion Channel Function</td>
</tr>
<tr>
<td>PSL1462H</td>
<td>Molecular Aspects of Cardiovascular Function</td>
</tr>
</tbody>
</table>
Political Science

Political Science: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Political Science

MA
- Fields:
  - Political Economy of International Development (admissions have been administratively suspended);
  - Political Science;
  - Political Theory

PhD
- Fields:
  - Canadian Politics;
  - Comparative Politics;
  - Development Studies;
  - International Relations;
  - Political Theory;
  - Public Policy

Combined Degree Programs

STG, Law, JD / Political Science, PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Contemporary East and Southeast Asian Studies
  - Political Science, MA
- Development Policy and Power
  - Political Science, MA
- Diaspora and Transnational Studies
  - Political Science, MA, PhD
- Environmental Studies
  - Political Science, MA, PhD
- Ethnic, Immigration and Pluralism Studies
  - Political Science, MA, PhD
- Global Health (U of T Global Scholar)
  - Political Science, PhD
- Jewish Studies
  - Political Science, MA, PhD
- Sexual Diversity Studies
  - Political Science, MA, PhD
- South Asian Studies
  - Political Science, MA, PhD
- Women and Gender Studies
  - Political Science, MA, PhD

Overview

The Department of Political Science is one of the largest political science departments in the western world. It is committed to fostering a collegial environment for graduate students and personal interaction between faculty and students.

The department has a large and academically diverse research-oriented faculty, well represented in the various sub-fields of the discipline (Political Theory, International Relations, Comparative Politics, Development Studies, Canadian Politics, and Public Policy). The department also participates in a wide range of interdisciplinary graduate programs.

Since entrance requirements and standards of work are high, so is the calibre of students. Many hold prestigious fellowships, and several have recently won major awards, including the Canadian Political Science Association and American Political Science Association’s prizes for best doctoral theses in their areas.

Graduates have gone on to academic careers, public service, and other work in all provinces of Canada, the United States, and many other countries. The University maintains an active placement service to assist graduate students seeking employment in the academic world. Graduate students have established the Graduate Association for Students in Political Science to foster intellectual exchanges, social events, and student participation in all aspects of department life.

Contact and Address

Web: politics.utoronto.ca/graduate
Email: louis.tentsos@utoronto.ca
Telephone: (416) 978-2017
Fax: 416-978-5566

Department of Political Science
University of Toronto
Room 3025, 100 St. George Street
Toronto, Ontario M5S 3G3
Canada

Political Science: Graduate Faculty

Full Members

Adler, Emanuel - MA, PhD, FRSC
Ahmad, Aisha - BA, MA, PhD
Balot, Ryan - BA, AM, PhD (Chair)
Bashevkin, Sylvia - BA, MA, PhD, FRSC
Bathelt, Harald - MA, PhD, CRC
Beiner, Ronald - BA, DPhil
Bernstein, Steven - PhD
Bertoldi, Nancy - BA, MA, PhD
Bertrand, Jacques - BA, MSc, MA, DrRerPol
Braun, Aurel - BA, MA, PhD
Breznitz, Dan - BA, PhD
Cameron, David - PhD, FRSC
Chambers, Simone - BA, MPH, MA, PhD
Clark, Janine Astrid - BES, BSc, MA, PhD
Cochrane, Christopher Brian - BA, MA, PhD
Cook, David - BA, MA, PhD
Craft, Jonathan - MA, PhD
Dancy, Geoffrey - PhD
Day, Richard - BA, MA, PhD
Members Emeriti

Andrew, Edward - BA, PhD
Barker, Jonathan - PhD
Carens, Joseph - AB, MPH, MPH, PhD
Donnelly, Michael - BSc, MA, PhD
Falkenheim, Victor - AB, MA, PhD
Griffiths, Franklyn J.C. - BA, MLA, PhD
Horowitz, Gad - BA, PhD
Indart, Gustavo - BA, MA, PhD
Kontos, Alkis - MA, PhD
LeDuc, Lawrence - BA, MA, PhD
Manzer, Ronald - BEd, BA, MA, PhD
Matthews, Robert - BA, MIA, PhD
Russell, Paul - BA, BEd, MA
Stren, Richard - BA, MA, PhD
Tuohy, Carolyn - BA, MA, PhD, FRSC

Associate Members

Ariga, Kenichi - MA, MCP, PhD
Balaguera Cuervo, Martha - BA, MA, PhD
Borins, Sandford - BA, PhD
Campisi, Julian - BA, MA, PhD
Chang Quiroz, Arturo - BA, MA, PhD
Compaore, Nadege - BA, MA, PhD
Cowie, Chadwick - BA, MSc
Ewing, Connor - PhD, PhD, PhD
Guzzini, Stefano - PhD
Maile, Uahikea - PhD
McDougall, Andrew Wilson - BA, MA, PhD
McElroy, Brendan - DPhil
Mendez Gutierrez, Maria - DPhil
Merkley, Eric - PhD, PhD
Oron, Oded David - BA, MA, PhD
Schramm, Madison - DPhil
Stark, Andrew - BA, MSc, AM, PhD
Subramanian, Narendra - PhD
Walton, Matthew - PhD
Wu, Nicole Ka Wing - PhD

Political Science: Political Science MA

Master of Arts

Program Description

The MA program is designed to satisfy the diverse interests of students who wish to pursue a year of graduate study in political science. Students admitted to the MA program may choose from the fields in Political Science and Political Theory. Students whose interests are primarily normative and philosophical may choose the field of Political Theory.

The MA program may be taken on a full-time or part-time basis.

Field: Political Economy of International Development (PEID)

Admissions have been administratively suspended. This field will close on August 31, 2024.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Political Science’s additional admission requirements stated below.
- Cumulative grade average equivalent to a University of Toronto B+ or better in an appropriate bachelor’s degree program. Preference will be given to applicants with outstanding academic records and a strong background in political science.
- Applicants must provide evidence of a satisfactory background in political science and a second social science. Applicants intending to enrol in a master’s-level economics course must meet undergraduate prerequisites in microeconomics, macroeconomics, and statistics. A satisfactory background in political science means a minimum of five well-distributed courses including at least one relating to development.
- Admission is competitive. Enrolment in the program is limited, and meeting minimum requirements does not guarantee admission. All applicants are considered on their individual merit by a departmental admissions committee. Applicants lacking an adequate background in political science may be required to complete additional undergraduate courses before being considered for admission. Such work should be undertaken in consultation with the MA supervisor.
- Applicants must submit a complete application according to instructions on the department’s website.

Program Requirements

- **Coursework.** Students must complete a minimum of **4.0 full-course equivalents (FCEs)** as follows:
  - POL2408H *Political Economy of International Development* (0.5 FCE).
  - Either POL2345H *Politics of Growth in Developing Countries* or POL2400H *Theories and Issues — The Politics of Development* (0.5 FCE).
  - 0.5 FCE in anthropology, geography, or economics, selected from an approved course list.
  - 1.0 FCE taken from the approved political science course list.
  - A research essay in the political economy of international development within the context of the MA Research Seminars, POL2810Y MA Research Seminar I or POL2811Y MA Research Seminar II (1.0 FCE). Students enrolled in a collaborative specialization with a similar requirement are exempted.
  - 0.5 FCE from either list of approved courses.
- The equivalent of 1.0 FCE may be taken in a cognate discipline with the approval of the department.
- Programs in which additional requirements or prerequisites must be met may take longer than three sessions to complete.

Program Length

- 3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

- 3 years full-time; 6 years part-time

Field: Political Science

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Political Science’s additional admission requirements stated below.
- Cumulative grade average equivalent to a University of Toronto B+ or better in an appropriate bachelor’s degree program. Preference will be given to applicants with outstanding academic records and a strong background in political science.
- Admission is competitive. Enrolment in the program is limited, and meeting minimum requirements does not guarantee admission. All applicants are considered on their individual merit by a departmental admissions committee. Applicants lacking an adequate background in political science may be required to complete additional undergraduate courses before being considered for admission. Such work should be undertaken in consultation with the MA supervisor.
- Applicants must submit a complete application according to instructions on the department’s website.

Program Requirements

- **Coursework.** Students must complete a minimum of **4.0 full-course equivalents (FCEs)** including:
  - At least 0.5 FCE in Political Theory, which can be any other theory course.
  - At least 0.5 FCE in statistics or research design.
  - POL2503H *Thinking Through Research Design* and POL2504H *Statistics for Political Scientists* are among the courses currently offered by the department which meet this requirement.
  - The equivalent of 1.0 FCE may be taken in a cognate discipline with the approval of the department.
  - A research essay (1.0 FCE) within the context of the MA Research Seminars, POL2810Y MA Research Seminar I or POL2811Y MA Research Seminar II. Students enrolled in a collaborative specialization with a similar requirement are exempted.
- Programs in which additional requirements or prerequisites must be met may take longer than three sessions to complete.

Program Length

- 3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

- 3 years full-time; 6 years part-time

Field: Political Theory

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies.
Applicants must also satisfy the Department of Political Science's additional admission requirements stated below.

- Cumulative grade average equivalent to a University of Toronto B+ or better in an appropriate bachelor's degree program. Preference will be given to applicants with outstanding academic records and a strong background in political science.
- Admission is competitive. Enrolment in the program is limited, and meeting minimum requirements does not guarantee admission. All applicants are considered on their individual merit by a departmental admissions committee. Applicants lacking an adequate background in political science may be required to complete additional undergraduate courses before being considered for admission. Such work should be undertaken in consultation with the MA supervisor.
- Applicants must submit a complete application according to instructions on the department's website.

Program Requirements

- **Coursework.** Students must complete a minimum of 4.0 full-course equivalents (FCEs) as follows:
  - 2.0 FCEs in Political Theory.
  - At least 1.0 FCE in an area outside Political Theory.
  - The equivalent of 1.0 FCE may be taken in a cognate discipline with the approval of the department.
  - All courses must be chosen in consultation with the MA supervisor.
- Programs in which additional requirements or prerequisites must be met may take longer than three sessions to complete.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time; 6 years part-time

Political Science: Political Science PhD

Doctor of Philosophy

Program Description

PhD students will declare two fields:

- **Field 1** will be one of:
  - Canadian Politics
  - Comparative Politics
  - Development Studies
  - International Relations
  - Political Theory
  - Public Policy

- **Field 2** will be one of:
  - Canadian Politics
  - Comparative Politics
  - Development Studies
  - International Relations
  - Political Theory
  - Public Policy

Applicants may be admitted to the PhD program via one of three routes:

- **With an MA:** excellent students who have completed an MA degree in political science (or its equivalent) by the time of enrolment.
- **Transfer:** in exceptional cases, on the initiative of the Director of Graduate Studies, MA students may be transferred to the PhD program. Such transfers will occur only where a full assessment of an applicant's bachelor's record (or equivalent) was impossible and where that student's instructors concur that the student in question has excelled in the first half of the MA program.
- **Direct-entry:** exceptional students who have completed an appropriate bachelor's degree with a concentration in political science by the time of enrolment. Students admitted to the PhD from a bachelor's degree who receive less than an A– average in their first four courses will be recommended to SGS to transfer to the MA program. If the transfer is approved, these students will graduate with a terminal MA, provided their grades meet the requirements for the MA degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Political Science’s additional admission requirements stated below.
- Applicants must have completed an MA degree in political science (or its equivalent) by the time of enrolment.
- Applicants are expected to have achieved grades averaging A—or better in their most recent degree.
- Applicants must submit a complete application according to the instructions.

Program Requirements

- **Coursework.** Students must complete 2.0 to 5.0 full-course equivalents (FCEs) depending on the student's relevant background in the fields or areas of choice:
  - Most students entering with an MA take the equivalent of 4.0 FCEs to satisfy program requirements; students must take a minimum of 2.0 FCEs with the department after entering the PhD program.
  - Graduate courses taken at the MA level at the University of Toronto or elsewhere may be counted, with the department's permission, towards meeting some course requirements.
- Students will declare two fields:
  - **Field 1** will be one of Canadian Politics, Comparative Politics, Development Studies, International Relations, Political Theory, or Public Policy. The normal course requirement for Field 1 will be 2.0 FCEs, including a 1.0 FCE core course requirement (with the exception of a 0.5 FCE core course requirement in Development Studies).
- **Field 2** will be one of Canadian Politics, Comparative Politics, Development Studies, International Relations, Political Theory, or Public Policy. The normal course requirement for Field 2 will be 1.5 FCEs, including a 1.0 FCE core course requirement (with the exception of a 0.5 FCE core course requirement in Development Studies).
- The Director of Graduate Studies may exercise discretion to waive the Field 2 requirement for students enrolled in collaborative specializations.
- Students who do not designate Political Theory as Field 1 must complete 0.5 graduate-level FCE in Political Theory.
- Students must complete 0.5 FCE in qualitative methods. This requirement may be waived on the basis of MA work.
- Students who do not designate Political Theory as Field 1 must complete 0.5 FCE in quantitative methods. This requirement may be waived on the basis of MA work.
- Students who designate Political Theory as Field 1 will substitute a non-waivable 0.5 FCE intensive reading requirement for the quantitative methods requirement.
- Students must complete POL2812Y PhD Research Design (1.0 FCE), normally during Year 3; students who have designated Political Theory as Field 1 are exempted.
- **Field examinations.**
  - Students must complete field examinations in Field 1 and Field 2 by the end of Year 2.
  - The Field 1 examination should be taken in May or August of the year in which the core course is taken as long as all assignments in the core course have been completed.
  - The Field 2 examination must be taken no later than Year 2.
  - A student who fails to achieve a grade of at least A– is permitted one opportunity to retake a field examination. After failing the examination once, the student is permitted two attempts to pass the examination in a new field.
- **Thesis proposal, thesis committee, and thesis schedule.** Students should assign a high priority to defining a thesis topic and choosing a thesis committee. By December of Year 3, students must have:
  - Established a thesis committee of three faculty members including a thesis supervisor and
  - Completed a draft of a thesis proposal of approximately 25 pages for submission to the thesis committee. Final revisions of the proposal must be approved by the end of Year 3. The research and writing of the thesis will follow the acceptance of the thesis proposal. The work schedule should permit the student to complete the thesis by the end of Year 5.
- **Language requirement.** Students must demonstrate competence in the language that is appropriate to the nature of the graduate work in which they are engaged. Students whose Field 1 is Canadian Politics are strongly encouraged to demonstrate competence in French.
- University policy requires that students complete all their non-thesis requirements (coursework, thesis proposal, Field 1 and Field 2 qualifying exams, and language requirements) by the end of Year 3.
- Students must achieve an A– average in coursework and an A– in their field examinations to remain in good standing.
- Minimum of three sessions in residence, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.
- Although the program has been designed for completion in four years, some students may require longer to complete all the requirements.

### Program Length

**4 years full-time; 5 years transfer-from-master's**

### Time Limit

**6 years full-time; 7 years transfer-from-master's**

### PhD Program (Direct-Entry)

#### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies.
- Applicants must also satisfy the Department of Political Science's additional admission requirements stated below.
- Exceptional students who have completed an appropriate bachelor's degree with a concentration in political science by the time of enrolment. Such students who receive less than an A– average in their first four courses will be recommended to SGS to transfer to the MA program. If the transfer is approved, these students will graduate with a terminal MA, provided their grades meet the requirements for the MA degree and provided they meet the course requirements of one of the three MA fields
- Applicants are expected to have achieved grades averaging A– or better in their most recent degree. Applicants from the BA level will apply to the MA program but indicate on the MA application that they wish to be considered for direct entry to the PhD program.
- Applicants must submit a complete application according to the instructions.

### Program Requirements

- **Coursework.** Students must complete **6.0 full-course equivalents (FCEs)** with at least an A– average in their first four courses in order to continue in the PhD program. In selecting courses, students should ensure that they satisfy the following field requirements.
- Students will declare two fields:
  - **Field 1** will be one of Canadian Politics, Comparative Politics, Development Studies, International Relations, Political Theory, or Public Policy. The normal course requirement for Field 1 will be 2.0 FCEs, including a 1.0 FCE core course requirement (with the exception of a 0.5 FCE core course requirement in Development Studies).
  - **Field 2** will be one of Canadian Politics, Comparative Politics, Development Studies, International Relations, Political Theory, or Public Policy. The normal course requirement for Field 2 will be 1.5 FCEs, including a 1.0 FCE core course requirement (with the exception of a 0.5 FCE core course requirement in Development Studies).
- The Director of Graduate Studies may exercise discretion to waive the Field 2 requirement for students enrolled in collaborative specializations.
- Students who do not designate Political Theory as Field 1 must complete 0.5 graduate-level FCE in Political Theory.
- Students must complete 0.5 FCE in qualitative methods. This requirement may be waived on the basis of MA work.
• Students who do not designate Political Theory as Field 1 must complete 0.5 FCE in quantitative methods. Students who designate Political Theory as Field 1 will substitute a non-waivable 0.5 FCE intensive reading requirement for the quantitative methods requirement.

• Students must complete POL2812Y PhD Research Design (1.0 FCE), normally during Year 4; students who have designated Political Theory as Field 1 are exempted.

• Field examinations.  
  o Students must complete field examinations in Field 1 and Field 2 by the end of Year 2.
  o The Field 1 examination should be taken in May or August of the year in which the core course is taken as long as all assignments in the core course have been completed.
  o The Field 2 examination must be taken no later than Year 2. A student who fails to achieve a grade of at least A– is permitted one opportunity to retake a field examination. After failing the examination once, the student is permitted two attempts to pass the examination in a new field.

• Thesis proposal, thesis committee, and thesis schedule. Students should assign a high priority to defining a thesis topic and choosing a thesis committee. By December of Year 4, students must have:
  o Established a thesis committee of three faculty members including a thesis supervisor and
  o Completed a draft of a thesis proposal of approximately 25 pages for submission to the thesis committee. Final revisions of the proposal must be approved by the end of Year 4. The research and writing of the thesis will follow the acceptance of the thesis proposal. The work schedule should permit the student to complete the thesis by the end of Year 6.

• Language requirement. Students must demonstrate competence in the language that is appropriate to the nature of the graduate work in which they are engaged. Students whose Field 1 is Canadian Politics are strongly encouraged to demonstrate competence in French.

• University policy requires that students complete all their non-thesis requirements (coursework, thesis proposal, Field 1 and Field 2 qualifying exams, and language requirements) by the end of Year 4.

• Students must achieve an A– average in coursework and an A– in their field examinations to remain in good standing.

• Minimum of six sessions in residence, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

• Although the program has been designed for completion in five years, some students may require longer to complete all the requirements.

Program Length
5 years

Time Limit
7 years

Political Science: Political Science MA, PhD Courses

Some listed courses have an undergraduate component and begin the first week of the session. Not all courses are given every year. Consult the departmental timetable.

Canadian Politics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>POL2100H</td>
<td>Issues and Foundations in Canadian Government (core)</td>
</tr>
<tr>
<td>POL2102H</td>
<td>Topics in Canadian Politics I</td>
</tr>
<tr>
<td>POL2103H</td>
<td>Topics in Canadian Politics II</td>
</tr>
<tr>
<td>POL2105H</td>
<td>Canadian and Comparative Political Development (core)</td>
</tr>
<tr>
<td>POL2128H</td>
<td>Federalism and Diversity in Canada (and Beyond)</td>
</tr>
<tr>
<td>POL2139H</td>
<td>The Canadian Welfare State in Comparative Perspective</td>
</tr>
<tr>
<td>POL2167H</td>
<td>The Politics of Immigration and Multiculturalism in Canada</td>
</tr>
<tr>
<td>POL2317H</td>
<td>Politics and Policy Analysis</td>
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<tr>
<td>HAD5765H</td>
<td>Case Studies in Health Policy</td>
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Comparative Politics

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>POL2139H</td>
<td>The Canadian Welfare State in Comparative Perspective</td>
</tr>
<tr>
<td>POL2241H</td>
<td>Civil War and Counterinsurgency</td>
</tr>
<tr>
<td>POL2317H</td>
<td>Politics and Policy Analysis</td>
</tr>
<tr>
<td>JRA2321H</td>
<td>Topics in Comparative Politics</td>
</tr>
<tr>
<td>POL2321H</td>
<td>Topics in Comparative Politics I</td>
</tr>
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<td>POL2322H</td>
<td>Topics in Comparative Politics II</td>
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<tr>
<td>POL2326H</td>
<td>Democracy and Dictatorship</td>
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<tr>
<td>POL2335H</td>
<td>Business and Politics: Power in a Global World</td>
</tr>
<tr>
<td>JRA2337H</td>
<td>Government Law and Politics in Russia</td>
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<tr>
<td>POL2344H</td>
<td>Land and Indigenous Politics</td>
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<tr>
<td>POL2345H</td>
<td>Politics of Growth in Developing Countries</td>
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<tr>
<td>JPA2353H</td>
<td>Authoritarianism in Comparative Perspective</td>
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<tr>
<td>POL2355H</td>
<td>Twentieth Century Ukraine</td>
</tr>
<tr>
<td>POL2370H</td>
<td>Media and Politics</td>
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<tr>
<td>Course Code</td>
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<tr>
<td>POL2372H</td>
<td>The Comparative Political Economy of Industrial Societies</td>
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<tr>
<td>JRA2391H</td>
<td>Topics in Comparative Politics</td>
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<tr>
<td>POL2391H</td>
<td>Topics in Comparative Politics III</td>
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<tr>
<td>POL2392H</td>
<td>Topics in Comparative Politics IV</td>
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<tr>
<td>POL2394H</td>
<td>Innovation and Knowledge Transfer in City Regions</td>
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<tr>
<td>POL2411H</td>
<td>Topics in Asian Politics</td>
</tr>
<tr>
<td>POL2418H</td>
<td>Topics in Middle East Politics</td>
</tr>
<tr>
<td>JPF2430H</td>
<td>Conceptualizing Cities in a Global Context</td>
</tr>
<tr>
<td>JPF2431H</td>
<td>Global Cities — Core Issues and Challenges (exclusion: JPF2409Y)</td>
</tr>
<tr>
<td>POL2700H</td>
<td>Foundations and Approaches to Comparative Politics (core)</td>
</tr>
<tr>
<td>POL2701H</td>
<td>Comparative Institutional Politics: Governance, Parties, and Structures of State Power (core)</td>
</tr>
<tr>
<td>POL2702H</td>
<td>Constituent Power in Comparative Perspective: Identity, Contention, and Mobilization (core)</td>
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**Development Studies**

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<tr>
<td>POL2326H</td>
<td>Democracy and Dictatorship</td>
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<tr>
<td>POL2345H</td>
<td>Politics of Growth in Developing Countries</td>
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<tr>
<td>JPA2353H</td>
<td>Authoritarianism in Comparative Perspective</td>
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<tr>
<td>POL2400H</td>
<td>Theories and Issues — The Politics of Development</td>
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<tr>
<td>POL2405H</td>
<td>Topics in Latin American Politics</td>
</tr>
<tr>
<td>POL2408H</td>
<td>Political Economy of International Development</td>
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<td>POL2411H</td>
<td>Topics in Asian Politics</td>
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<tr>
<td>POL2416Y</td>
<td>Politics and Society in Contemporary China</td>
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<tr>
<td>POL2418H</td>
<td>Topics in Middle East Politics</td>
</tr>
<tr>
<td>JPF2430H</td>
<td>Conceptualizing Cities in a Global Context</td>
</tr>
<tr>
<td>JPF2431H</td>
<td>Global Cities — Core Issues and Challenges (exclusion: JPF2409Y)</td>
</tr>
<tr>
<td>POL2431H</td>
<td>Dynamics of Political Change in Contemporary China</td>
</tr>
<tr>
<td>POL2463H</td>
<td>State and Society in 20th Century China</td>
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**International Relations**

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<td>JPJ2037H</td>
<td>International Trade Regulation</td>
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**Political Theory**

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<tr>
<td>POL2000H</td>
<td>Ancient Political Thought to the Rise of Modernity (core)</td>
</tr>
<tr>
<td>POL2001H</td>
<td>Theoretical Bases of Political Institutions</td>
</tr>
<tr>
<td>POL2002H</td>
<td>Modern and Contemporary Political Thought (core)</td>
</tr>
<tr>
<td>POL2011H</td>
<td>Problems in the Political Thought of the Socratic School</td>
</tr>
<tr>
<td>POL2019H</td>
<td>Moral Reason and Economic History</td>
</tr>
<tr>
<td>POL2024H</td>
<td>Feminist Theory</td>
</tr>
<tr>
<td>POL2026H</td>
<td>Topics in Political Thought I</td>
</tr>
<tr>
<td>POL2027H</td>
<td>Topics in Political Thought II</td>
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<tr>
<td>POL2028H</td>
<td>Approaches to Political Theory</td>
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<tr>
<td>POL2038H</td>
<td>Studies in Comparative Political Theory</td>
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<tr>
<td>JPR2051H</td>
<td>Fanaticism: A Political History</td>
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<tr>
<td>JPR2058H</td>
<td>Post-secular Political Thought: Religion, Radicalism, and the Limits of Liberalism</td>
</tr>
<tr>
<td>POL2075H</td>
<td>Post-Modern and Contemporary Thought</td>
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<tr>
<td>POL2226H</td>
<td>Ethics and International Relations</td>
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<td>POL2344H</td>
<td>Land and Indigenous Politics</td>
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<tr>
<td>RLG3622H</td>
<td>Maimonides and His Modern Interpreters</td>
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## Public Policy

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<th>Course Title</th>
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<tr>
<td>POL2167H</td>
<td>The Politics of Immigration and Multiculturalism in Canada</td>
</tr>
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<td>POL2213H</td>
<td>Global Environmental Politics</td>
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<tr>
<td>POL2317H</td>
<td>Politics and Policy Analysis</td>
</tr>
<tr>
<td>POL2318H</td>
<td>Public Policy: Theories and Approaches (core)</td>
</tr>
<tr>
<td>POL2319H</td>
<td>Public Policy: Applications (core)</td>
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<tr>
<td>POL2335H</td>
<td>Business and Politics: Power in a Global World</td>
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<tr>
<td>POL2376H</td>
<td>Topics in Public Policy</td>
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<td>HAD5765H</td>
<td>Case Studies in Health Policy</td>
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## Methods and Research Seminars

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<tbody>
<tr>
<td>POL2503H</td>
<td>Thinking Through Research Design</td>
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<tr>
<td>POL2504H</td>
<td>Statistics for Political Scientists</td>
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<tr>
<td>POL2505H</td>
<td>Qualitative Methods in Political Research</td>
</tr>
<tr>
<td>POL2507H</td>
<td>Multiple Regression Analysis for Political Scientists</td>
</tr>
<tr>
<td>POL2519H</td>
<td>Quantitative Methods and Data Analysis</td>
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<tr>
<td>POL2578H</td>
<td>Topics in Methods</td>
</tr>
<tr>
<td>POL2809H</td>
<td>Politics and the Public Sphere: Academic Internship (prerequisite: POL2028H or POL2503H)</td>
</tr>
<tr>
<td>POL2810Y</td>
<td>MA Research Seminar I</td>
</tr>
<tr>
<td>POL2811Y</td>
<td>MA Research Seminar II</td>
</tr>
<tr>
<td>POL2812Y</td>
<td>PhD Dissertation Proposal Seminar (Credit/No Credit)</td>
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## Independent Study and Special Topics

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<tr>
<td>POL2800H</td>
<td>Special Topics I</td>
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<tr>
<td>POL2801H</td>
<td>Special Topics II</td>
</tr>
<tr>
<td>POL2904Y</td>
<td>Reading course in an approved special field</td>
</tr>
<tr>
<td>POL2905H</td>
<td>Reading course in an approved special field</td>
</tr>
</tbody>
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Psychological Clinical Science

Psychological Clinical Science: Introduction

Faculty Affiliation

University of Toronto Scarborough (UTSC)

Degree Programs

Counselling and Clinical Psychology

MA and PhD

- Fields:
  - Clinical Psychology — offered by the Graduate Department of Psychological Clinical Science, UTSC;
  - Clinical and Counselling Psychology — offered by the Department of Applied Psychology and Human Development, Ontario Institute for Studies in Education (OISE), St. George campus

Collaborative Specializations

The following collaborative specialization is available to students in participating degree programs as listed below:

- Addiction Studies
  - Counselling and Clinical Psychology (Clinical Psychology field), MA, PhD

Overview

The Graduate Department of Psychological Clinical Science (UTSC) and the Department of Applied Psychology and Human Development (OISE) offer a graduate program in Counselling and Clinical Psychology leading to the MA and PhD degrees.

Contact and Address

Web: www.utsc.utoronto.ca/psych/clinical-psychology
Email: clinicalpsych.utsc@utoronto.ca
Telephone: (416) 287-7131

Graduate Department of Psychological Clinical Science
University of Toronto Scarborough (UTSC)
Science Wing, Room SW427D
1265 Military Trail
Toronto, Ontario M1C 1A4
Canada

Psychological Clinical Science: Graduate Faculty

Full Members

Bagby, Michael - BA, MA, PhD, PhD
Goghari, Vina - BA, MA, PhD
Ruocco, Anthony Charles - BS, MSc, PhD (Graduate Chair)
Segal, Zindel - BA, MA, PhD

Uliaszek, Amanda Ann - BA, MA, PhD (Program Coordinator; Acting Graduate Chair from January 1 to June 30, 2024)
Zakzanis, Konstantine - BA, MA, PhD

Associate Members

Andersen, Judith - BSc, MA, PhD
Black, Sandra - BSc, MD
Bury, Alison - PhD
Cooper, Andrew Astley - BSc, MA, PhD
Cunningham, William - BA, MPH, MS, MA, PhD
Dere, Jessica - BA, MPsy, PhD
Edelstein, Kim - PhD
Farb, Norman - BA, MA, PhD
Fitzgerald, Nicola - BASc, AM, PhD
Fournier, Marc - BA, PhD
Foussias, George - BSc, MSc, DrMed, PhD
Fuss, Samantha - BA, MA, PhD
Gerritsen, Cory - BSc, MA, PhD
Green, Robin - PhD
Hutcherson, Cendri Anne Claire - BA, PhD
Ito Lee, Rutsuko - BA, PhD
Kidd, Sean - PhD
Ng, Longena - BS, MA, PhD
Penney, Stephanie - BA, MA, DPhil
Quilty, Lena - BSc, PhD
Rector, Neil - BA, MA, PhD
Remington, Gary - MD, PhD
Ruttan, Lesley Ann - BSc, MA, PhD
Sabiston, Catherine - BS, MA, PhD
Schmuckler, Mark - BA, PhD
Shammi, Prathiba - MA, MA, PhD

Psychological Clinical Science: Counselling and Clinical Psychology MA; Field: Clinical Psychology

Master of Arts

Program Description

The Counselling and Clinical Psychology program offers studies leading to the MA and PhD degrees. It is offered by the Graduate Department of Psychological Clinical Science at the University of Toronto Scarborough (UTSC) and the Graduate Department of Applied Psychology and Human Development at the Ontario Institute for Studies in Education (OISE), St. George campus.

This graduate program is intended for students seeking to pursue careers in research, teaching, and clinical practice. At the time of application, students will be required to identify a preference for a specific field as well as for a potential supervisor with whom they would work if admitted to the program.

The program has two fields:

- Clinical and Counselling Psychology, offered by OISE;
- Clinical Psychology, offered by UTSC.
The field in Clinical Psychology is offered by the Department of Psychological Clinical Science at UTSC. Clinical Psychology at UTSC adheres to a Clinical Science model of training and is accredited by the Canadian Psychological Association (CPA).

Graduate training in Clinical Psychology at UTSC has primary research strengths in the areas of: clinical and cognitive neuroscience, psychological assessment and clinical neuropsychology, psychopathology, personality, and mindfulness- and acceptance-based psychotherapies.

The field in Clinical Psychology adheres to a generalist model of training, with a primary focus on adults, including emerging adults and older adults. A unifying theme of faculty research in Clinical Psychology at UTSC is to foster exceptional clinical scientists according to the highest standards of research and professional practice.

The Clinical Psychology field for the MA in Counselling and Clinical Psychology program offers a strong background in mathematics, computer science, statistics, biological science, or neuroscience are encouraged to apply.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Psychological Clinical Science's additional admission requirements stated below.
- A four-year bachelor's degree from a recognized university with at least an A– (or first-class standing) in the final two years of undergraduate study, and at least 4.0 to 6.0 full-course equivalents (FCEs) in psychology including statistics and some laboratory research experience. Students who are admitted to the program without 4.0 to 6.0 FCEs in required undergraduate coursework may be required to complete additional courses in the master's program. Applicants with a strong background in mathematics, computer science, statistics, biological science, or neuroscience are encouraged to apply.
- Two academic letters of reference.
- A personal statement.
- A curriculum vitae.
- Completion of the Department Application Form.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must demonstrate proficiency in English. Applicants must complete the Test of English as a Foreign Language (TOEFL), or its equivalent according to SGS regulations, prior to submitting the application. See General Regulations section 4.3 for requirements.

Program Requirements

- **Coursework.** The Clinical Psychology field for the MA in Counselling and Clinical Psychology requires **5.0 full-course equivalents (FCEs)**, including an ethics course, practicum-based courses, a clinical practicum, and a thesis.
  - 4.5 FCEs as follows:
    - **Year 1:**
      - CPS1601H Psychopathology (0.5 FCE);
      - CPS1701H Psychological Assessment I (0.5 FCE);
      - CPS1702H Psychological Assessment II (0.5 FCE);
      - CPS1801H Psychotherapy (0.5 FCE);
      - CPS1901H Ethics (0.5 FCE).
    - **Year 2:**
      - CPS1101H Clinical Research Design (0.5 FCE);
      - CPS1102H Statistical Techniques I (0.5 FCE);
      - CPS1802H Applied Interventions in Clinical Psychology (0.5 FCE);
      - CPS1803H Practicum in Psychological Interventions (0.5 FCE).
  - 0.5 FCE: Students must complete a clinical practicum at a pre-approved placement site in the final Summer of the program (CPS2999H Summer Practicum).
- **Research thesis** to be completed and orally defended in Year 2 of the program.

Program Length

- 6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

- 3 years full-time

Psychological Clinical Science: Counselling and Clinical Psychology PhD; Field: Clinical Psychology

Doctor of Philosophy

Program Description

The **Counselling and Clinical Psychology program** offers studies leading to the MA and PhD degrees. It is offered by the Graduate Department of Psychological Clinical Science at the University of Toronto Scarborough (UTSC) and the Graduate Department of Applied Psychology and Human Development at the Ontario Institute for Studies in Education (OISE), St. George campus.

This graduate program is intended for students seeking to pursue careers in research, teaching, and clinical practice. At the time of application, students will be required to identify a preference for a specific field as well as for a potential supervisor with whom they would work if admitted to the program.

The program has two fields:

- Clinical and Counselling Psychology, offered by OISE;
- Clinical Psychology, offered by UTSC.

The **field in Clinical Psychology** is offered by the Graduate Department of Psychological Clinical Science at UTSC. Clinical Psychology adheres to a Clinical Science model of training and is accredited by the Canadian Psychological Association (CPA).
The primary and overriding objective of graduate training is to foster exceptional clinical scientists according to the highest standards of research and professional practice. Graduate training in Clinical Psychology at UTSC has primary research strengths in the areas of: clinical and cognitive neuroscience, psychological assessment and clinical neuropsychology, psychopathology, personality, and mindfulness- and acceptance-based psychotherapies.

The field of Clinical Psychology adheres to a generalist model of training, with a primary focus on adults, including emerging adults and older adults. A unifying theme of faculty research in Clinical Psychology at UTSC is to advance knowledge of the etiology and assessment and treatment of mental disorders. Instruction is provided in psychopathology, assessment, and intervention, and students are trained to practise with a variety of adult populations. The field also boasts strength in neuropsychology.

The PhD program is designed for applicants interested in a career as a clinical psychologist based on a Clinical Science model of training. Graduate training in Clinical Psychology at UTSC prepares graduates primarily for research and clinical careers as clinical scientists in university and medical and psychological settings.

The field is distinguished by its innovative cross-disciplinary approach that emphasizes scientific innovation through novel research collaborations that push traditional boundaries in clinical psychology. Importantly, the program meets the needs of students who plan to engage in research, teaching, and/or clinical psychology. This program is intended to meet the registration requirements of the College of Psychologists of Ontario (CPO) at the doctoral level.

The Counselling and Clinical Psychology program (Clinical Psychology field) is offered on a full-time basis, and progress in the program will be reviewed annually.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Psychological Clinical Science's additional admission requirements stated below.
- A master's degree in Clinical Psychology (or its equivalent) from a recognized university, with a minimum A-- average and excellent research performance.
- Two academic letters of reference.
- A personal statement.
- A curriculum vitae.
- Completion of the Department Application Form.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction is not English must demonstrate proficiency in English. Applicants must complete the Test of English as a Foreign Language (TOEFL), or its equivalent according to SGS regulations, prior to submitting the application. See General Regulations section 4.3 for requirements.

Program Requirements

- The PhD program requires 5.5 full-course equivalents (FCEs) including coursework, three clinical placements, plus a comprehensive examination, thesis proposal, thesis, and thesis defence:
  - 3.5 FCEs in coursework, normally completed by the end of Year 3 (CPS1103H, CPS1201H, CPS1301H, CPS1401H, CPS2901H, CPS2902H, CPS3901H).
  - 2.0 FCEs in clinical work:
    - 1.0 FCE in two separate part-time clinical placements during Years 1 and 2 (CPS3999H and CPS4999H).
    - 1.0 FCE in a one-year, full-time clinical internship at a Canadian Psychological Association- or American Psychological Association-accredited clinical setting (or equivalent), which normally takes place during Year 5 (CPS5999Y).
- The comprehensive examination requirement consists of two mandatory components:
  - An oral examination focused on clinical expertise (normally completed in the Fall session of Year 2); and
  - A research-focused grant proposal (normally completed in the Fall session of Year 2).
- A pass on both components is required for a student to continue on to PhD candidacy. Students who fail the oral exam will have the opportunity to retake the exam. Students who fail the grant proposal will have the opportunity to revise and resubmit. Students who fail either or both component(s) on the second attempt should consult the School of Graduate Studies’ PCS Graduate Handbook (PDF).
- Thesis proposal, normally approved prior to the start of Year 3 of the program.
- Completed thesis.
- Successful defence of the thesis at the Final Oral Examination.
- For students interested in acquiring additional clinical hours, the PhD program provides the following optional courses: CPS6999H and CPS7999H. Please note that optional courses for the PhD must be approved by the faculty supervisor, the DCT, and the Graduate Chair prior to course enrolment.
- Supervisors will have annual meetings with students to assess academic progress and to develop plans of study. The DCT will also hold formal annual meetings with students to assess clinical and professional progress.
- The program length is five years, which includes a pre-doctoral internship.

Program Length

5 years

Time Limit

6 years

Psychological Clinical Science: Counselling and Clinical Psychology MA, PhD; Field: Clinical Psychology Courses

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<td>CPS1101H</td>
<td>Clinical Research Design (Exclusion: APD1263H Research Methods for Clinical and Counselling Psychology (RM))</td>
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<tr>
<td>CPS1102H</td>
<td>Statistical Techniques I (Exclusion: JOI1287H Introduction to Applied Statistics (RM).)</td>
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<tr>
<td>CPS1103H</td>
<td>Statistical Techniques II (Exclusion: JOI1288H Intermediate Statistics and Research Design (RM).)</td>
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<td>CPS1201H</td>
<td>Neurobiological Bases of Behaviour</td>
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<tr>
<td>CPS1209H</td>
<td>Clinical Neuropsychology</td>
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<tr>
<td>CPS1301H</td>
<td>Cognitive-Affective Bases of Behaviour</td>
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<tr>
<td>CPS1401H</td>
<td>Social and Interpersonal Bases of Behaviour</td>
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<td>CPS1501H</td>
<td>Personality</td>
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<tr>
<td>CPS1601H</td>
<td>Psychopathology (Exclusion: APD3260H Psychodiagnostic Systems.)</td>
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<tr>
<td>CPS1701H</td>
<td>Psychological Assessment I (Exclusion: APD1208Y Cognitive and Personality Theory and Assessment)</td>
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<tr>
<td>CPS1702H</td>
<td>Psychological Assessment II (Prerequisite: CPS1701H.)</td>
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<td>CPS1801H</td>
<td>Psychotherapy (Exclusions: APD1202H Theories and Techniques of Counselling and Psychotherapy — Part I; APD1302H Theories and Techniques of Counselling and Psychotherapy — Part II.)</td>
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<tr>
<td>CPS1809H</td>
<td>Clinical Psychopharmacology</td>
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<tr>
<td>CPS1810H</td>
<td>Advanced Psychotherapy</td>
</tr>
<tr>
<td>CPS1901H</td>
<td>Ethics (Exclusion: APD1219H Ethical Issues in Professional Practice in Psychology and Psychotherapy.)</td>
</tr>
<tr>
<td>CPS2901H</td>
<td>Practicum in Clinical Supervision (Prerequisite: CPS3999H.)</td>
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<tr>
<td>CPS2902H</td>
<td>Quality Assurance and Consultation</td>
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<tr>
<td>CPS2999H</td>
<td>Summer Practicum (Prerequisites: CPS1802H, CPS1803H.)</td>
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<tr>
<td>CPS3801H</td>
<td>Multi-Person Therapies (Exclusions: APD1228H Couples Counselling, APD1260H Family Therapy, APD1261H Group Work in Counselling and Psychotherapy.)</td>
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<td>CPS3901H</td>
<td>The Historical and Scientific Foundations of Psychology (Exclusion: APD3204H Contemporary History and Systems in Human Development and Applied Psychology.)</td>
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<td>CPS3999H</td>
<td>Clinical Placement I</td>
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<td>CPS4999H</td>
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<tr>
<td>CPS5001H</td>
<td>Directed Readings</td>
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<td>CPS5002H</td>
<td>Directed Readings</td>
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<td>CPS7999H</td>
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* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Psychology

Psychology: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Psychology

MA and PhD

Note: admissions to the MA program have been administratively suspended.

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Addiction Studies
  - Psychology, MA, PhD
- Aging, Palliative and Supportive Care Across the Life Course
  - Psychology, MA, PhD
- Neuroscience
  - Psychology, MA, PhD
- Psychology, Psychiatry and Engineering
  - Psychology, MA, PhD
- Sexual Diversity Studies
  - Psychology, MA, PhD
- Women's Health
  - Psychology, MA, PhD

Overview

Graduate training in Psychology stresses training in general experimental psychology. Areas of specialization include the following:

- Behavioural Neuroscience
- Perception, Cognition, and Cognitive Neuroscience
- Developmental
- Social and Personality.

Contact and Address

Web: www.psych.utoronto.ca/graduate
Email: psy.graduate@utoronto.ca
Telephone: (416) 978-3404

Graduate Program, Department of Psychology
University of Toronto
Sidney Smith Hall, 100 St. George Street, Room 4034
Toronto, Ontario M5S 3G3
Canada

Psychology: Graduate Faculty

Full Members

Addis, Donna Rose - PhD
Andersen, Judith - BSc, MA, PhD
Armstrong, Blair - BASc, MA, PhD
Bagby, Michael - BA, MA, PhD, PhD
Barense, Morgan - BA, PhD
Barnett, Alexander - BS, MA, PhD
Bernhardt-Walther, Dirk - BSc, MPH, PhD
Bloom, Paul - BA, PhD
Cant, Jonathan - BA, MS, MedScD
Carlson, Erika Nicole - BS, MA, MA, PhD
Chambers, Craig - BA, MA, MA, PhD
Chasteen, Alison - BA, PhD
Cheung, Felix - AB, AM, PhD
Cirelli, Laura - BA, PhD
Cree, George Scott - BA, MA, PhD
Cunningham, William - BA, MPH, MS, MA, PhD
Cupchik, Gerald Chaim - BA, MA, PhD
der Nederlanden, Christina M. Vanden Bosch - BA, MA, PhD
Dion, Karen - BA, PhD
Duncan, Katherine - BS, PhD
Einstein, Gillian - AB, PhD
Erb, Suzanne - BSc, MA, PhD (Acting Graduate Chair)
Farb, Norman - BA, MA, PhD
Ferber, Susanne - MPSy, PhD
Finn, Amy - BA, PhD
Fournier, Marc - BA, PhD
Gerlai, Robert - MSc, PhD
Goldstein, Abby - BA, MA, PhD
Haley, David - BA, MA, PhD
Hendershot, Christian - PhD
Holmes, Melissa - BA, MA, PhD
Hutcherson, Cendri Anne Claire - BA, PhD
Impett, Emily - BS, MS, PhD
Inbar, Yoel - PhD
Inzlicht, Michael - BSc, MSc, PhD
Ito Lee, Rutsuko - BA, PhD
Johnson, Elizabeth - BA, MA, PhD (Graduate Director)
Joordens, Steve - BA, MA, PhD
Kim, Junchul - BSc, MSc, PhD
Lee, Andy C.H. - BA, PhD
Lee, Spike - MS, PhD
Lockwood, Penelope - BA, MA, PhD
MacDonald, Geoff - BA, PhD
Mack, Michael - BCS, MSc, PhD
Malti, Tina - MA, MA, PhD, PhD
Martin, Loren - BSc, MSc, PhD
Meltzer, Jed - BSc, PhD
Monks, Ashley - BSc, MA, PhD
Moscovitch, Morris - BSc, MA, PhD, Dr. Max and Gianna Glassman Chair in Neuropsychology
Neel, Rebecca - BA, MA, PhD
Nestor, Adrian - BPhil, MSc, ScD
Niemeier, Matthias - MA, PhD
Page-Gould, Elizabeth - BS, PhD, CRC (Graduate Chair)
Park, Jun Young - PhD
Peterson, Jordan - BA, BA, PhD
Plaks, Jason - BA, MA, MPH, PhD
Pratt, Jay - BA, MS, PhD
Ralph, Martin - BSc, PhD
Rojeske, Robert Raymond - BA, MA, PhD
Rule, Nicholas - AB, MS, PhD, CRC
Ruocco, Anthony Charles - BS, MSc, PhD
Schertz, Jessamyn Leigh - BA, MS, PhD
Schimmack, Ulrich - BA, MA, DPhil
Schmuckler, Mark - BA, PhD
Schneider, Bruce - BA, PhD
Sekuler, Allison - BA, PhD
Shu, L.H. - PhD
Sommerville, Jessica - PhD
Tafarodi, Romin - BA, PhD
Takehara, Kaori - BSc, MSc, PhD
Uliaszek, Amanda Ann - BA, MA, PhD
VanderLaan, Doug - BA, MSc, PhD
Wang, Andre - BA, MA, PhD
Williams, Joseph - PhD
Wolfe, Benjamin Arthur - BA, PhD
Wu, Yang - BS, PhD
Zakzanis, Konstantine - BA, MA, PhD
Zovkic, Iva - BA, MA, PhD

Members Emeriti

Craik, Fergus - BSc, PhD
Daneman, Meredyth - BA, MA, PhD
Fleming, Alison - BS, PhD
Freedman, Jonathan - AB, PhD
Grusec, Joan - BA, PhD
Lockhart, Robert - BA, MA, PhD
Pichora-Fuller, Margaret Kathleen - AB, MS, DPhil
Reingold, Eyal - BA, MA, PhD
Schellenberg, Glenn - BSc, PhD
Shettleworth, Sara - BA, MA, PhD
Smith, Mary lou - BSc, MSc, PhD
Trehub, Sandra - BComm, MA, PhD

Associate Members

Dimitrijevic, Andrew - BSc, MSc, PhD
Kosovicheva, Anna Alexandrovnna - BA, PhD
Widjaja, Elysa - MSc, MPH, MBBS

Psychology: Psychology MA

Note: admissions to the Master of Arts program have been administratively suspended.

Master of Arts

Program Description

The MA program is designed to provide students with rigorous scientific training in experimental psychology. The program is one year in duration, during which time students obtain instruction in statistics and research design, and carry out a research project that culminates in a written thesis and oral examination. Students admitted to the MA program are expected to continue to the PhD program.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Psychology's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum A– average (or first-class standing) in the last two undergraduate years, and the equivalent of 6.0 full-course equivalents (FCEs) in psychology including statistics and adequate research performance.
- It is assumed that all students entering the MA program intend to continue in the PhD program.

Program Requirements

- Courses and individual research training leading to a thesis.
- **Coursework.** Students must successfully complete a total of 2.0 FCEs as follows:
  - PSY1000H Directed Studies to prepare for the MA thesis research (0.5 FCE)
  - PSY2001H Statistics I, experimental design and statistics (0.5 FCE)
  - two half-course Psychology electives (1.0 FCE total).
- MA thesis.

It is expected that following the MA year, students will proceed to the PhD program. To be eligible for admission, adequate research performance and at least an A– average are required.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Psychology: Psychology PhD

Doctor of Philosophy

Program Description

The principal aim of the PhD program is to equip students with the skills to carry out advanced research within experimental psychology, and to become independent research scientists. Students work closely with a faculty adviser to develop and conduct a specialized (often multidisciplinary) program of research that ultimately culminates in a written dissertation and final oral examination. Through additional coursework and research opportunities, students gain breadth in their knowledge base and skill set in experimental psychology. The program is designed to prepare students for careers in academia, or a variety of non-academic careers where rigorous and in-depth research training is required.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Psychology's additional admission requirements stated below.
- Appropriate University of Toronto master's degree, or its equivalent from a recognized university, with a minimum A– average and adequate research performance.
Program Requirements

- **Coursework.** Students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: an advanced statistics course chosen from a list provided by the department (typically PSY2002H Statistics II, taken in Year 1).
  - 0.5 FCE: PSY3000H0 External Research Project, a research project course supervised by the student's PhD supervisor, completed during Years 1 and 2.
  - 0.5 FCE: PSY3001H0 Professional Psychology (Credit/No Credit), taken in two modules in Years 1 and 3.
  - 1.0 FCE in Psychology course electives. Of this requirement, 0.5 FCE can be achieved through two 0.25 FCE Psychology module electives (PSY3100H Psychological Science Skills).
  - 0.5 FCE: PSY4000H0 Doctoral Research Project, thesis proposal, and oral exam (examination in the student's area of research).

- **PhD thesis.**
  - Students may take other courses, but it is expected that the requirements will be completed in the first two years of the PhD program. Students admitted with a master's degree from another university will normally be required to fulfill the PhD course requirements; however, exemptions may be granted by the Graduate Director of the Department of Psychology.

Program Length

- 4 years full-time

Time Limit

- 6 years full-time

0 Course that may continue over a program. The course is graded when completed.

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Psychology's additional admission requirements stated below.
- Appropriate University of Toronto bachelor's degree, or its equivalent from a recognized university, with a minimum A–average and adequate research performance.
- Applicants with a master's degree in Psychology or a cognate discipline will likely be admitted to the four-year PhD program, whereas students with a master's degree in an unrelated discipline will be admitted to the direct-entry PhD option. Such admission decisions will be made by the Graduate Director.

Program Requirements

- **Coursework.** Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: PSY1100H Foundational Research Project, a research project course supervised by the student's supervisor plus two other faculty members, completed during Years 1 and 2.
  - 0.5 FCE: PSY2001H Statistics I, an introductory statistics course taken in Year 1.
  - 0.5 FCE: an advanced statistics course chosen from a list provided by the department (typically PSY2002H Statistics II, taken in Year 1).
  - 0.5 FCE: PSY3000H0 External Research Project, a research project course supervised by a faculty member other than the student's PhD supervisor, completed during Years 2 and 3.
  - 0.5 FCE: PSY3001H0 Professional Psychology (Credit/No Credit), taken in two modules in Years 1 and 3.
  - 2.0 FCEs in Psychology course electives. Of this requirement, 0.5 FCE can be achieved through two 0.25 FCE Psychology module electives (PSY3100H Psychological Science Skills).
  - 0.5 FCE: PSY4000H0 Doctoral Research Project, thesis proposal, and oral exam (examination in the student's area of research).

- **PhD thesis.**
  - Students may take other courses, but it is expected that the requirements will be completed in the first three years of the PhD program. Students admitted with a master's degree from another university will normally be required to fulfill the PhD course requirements; however, exemptions may be granted by the Graduate Director of the Department of Psychology.

Program Length

- 5 years full-time

Time Limit

- 7 years full-time

0 Course that may continue over a program. The course is graded when completed.

Psychology: Psychology MA, PhD Courses

Not all courses are offered each year. See the current offerings.

MA and PhD Core Courses

<table>
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<tr>
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<tr>
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<td>Foundational Research Project</td>
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<td>PSY1200H</td>
<td>Selected Topics in Psychology</td>
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<td>PSY1500H</td>
<td>Conceptual Bases of Psychology</td>
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<td>PSY3001H</td>
<td>Professional Psychology (Credit/No Credit)</td>
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<td>PSY3100H</td>
<td>Psychological Science Skills</td>
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**Behavioural Neuroscience Core Courses**

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<td>Mechanisms of Behaviour</td>
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<tr>
<td>PSY5110H</td>
<td>Advanced Topics in Behaviour Neuroscience I</td>
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<td>PSY5111H</td>
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<td>PSY5112H</td>
<td>Advanced Topics in Behaviour Neuroscience III</td>
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<td>PSY5121H</td>
<td>Advanced Topics in Animal Behaviour and Motivation II</td>
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<tr>
<td>PSY5130H</td>
<td>Advanced Topics in Neuropsychology I</td>
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<tr>
<td>PSY5131H</td>
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**Developmental Core Courses**

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<td>Cognitive Development</td>
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<td>PSY5304H</td>
<td>Language Development</td>
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<tr>
<td>PSY5305H</td>
<td>Social Development</td>
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<tr>
<td>PSY5310H</td>
<td>Advanced Topics in Development I</td>
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<td>PSY5311H</td>
<td>Advanced Topics in Development II</td>
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**Perception/Cognition/Cognitive Neuroscience Core Courses**

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<tr>
<td>PSY5201H</td>
<td>Audition</td>
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<tr>
<td>PSY5203H</td>
<td>Higher Cognition</td>
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<tr>
<td>PSY5204H</td>
<td>Attention</td>
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<tr>
<td>PSY5205H</td>
<td>Memory</td>
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<td>PSY5210H</td>
<td>Advanced Topics in Perception I</td>
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<tr>
<td>PSY5211H</td>
<td>Advanced Topics in Perception II</td>
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<td>PSY5212H</td>
<td>Advanced Topics in Perception III</td>
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<td>PSY5220H</td>
<td>Advanced Topics in Cognition I</td>
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<td>PSY5221H</td>
<td>Advanced Topics in Cognition II</td>
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**Social and Personality Core Courses**

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<td>PSY5403H</td>
<td>Social Cognition</td>
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<td>Advanced Topics in Abnormal I</td>
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<tr>
<td>PSY5421H</td>
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<tr>
<td>PSY5430H</td>
<td>Advanced Topics in Social Psychology I</td>
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<td>PSY5432H</td>
<td>Advanced Topics in Social Psychology III</td>
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<td>PSY5433H</td>
<td>Advanced Topics in Social Psychology IV</td>
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**Cross-Listed Courses**

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<td>JLP2450H</td>
<td>Psycholinguistics</td>
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<tr>
<td>JLP2451H</td>
<td>Language Acquisition</td>
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<tr>
<td>JLP2452H</td>
<td>Language Acquisition and Linguistic Theory</td>
</tr>
<tr>
<td>JNS1000Y</td>
<td>Fundamentals of Neuroscience: Systems and Behaviour</td>
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<tr>
<td>JPM1005Y</td>
<td>Behavioural Pharmacology</td>
</tr>
<tr>
<td>JPX1001Y</td>
<td>Parenting: Multidisciplinary Perspectives</td>
</tr>
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</table>
Public Health Sciences

Public Health Sciences: Introduction

Faculty Affiliation

Public Health

Degree Programs

Public Health Sciences

MPH

- Fields:
  - Black Health;
  - Epidemiology;
  - Family and Community Medicine;
  - Indigenous Health;
  - Nutrition and Dietetics
    - Emphases:
      - Clinical Nutrition;
      - Management and Food Systems;
      - Public Health Nutrition
  - Occupational and Environmental Health
    - Emphases:
      - Occupational Hygiene;
      - Environmental Public Health
  - Social and Behavioural Health Sciences

MSc

- Field:
  - Biostatistics
    - Emphasis: Artificial Intelligence and Data Science

DrPH

PhD

- Fields:
  - Biostatistics;
  - Epidemiology
    - Emphasis: Artificial Intelligence and Data Science
  - Occupational and Environmental Health;
  - Social and Behavioural Health Sciences

Bioethics

MHSc (admissions have been administratively suspended)

Community Health

MScCH

- Fields:
  - Addictions and Mental Health;
  - Family and Community Medicine;
  - Health Practitioner Teacher Education;
  - Occupational Health Care;
  - Wound Prevention and Care

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Addiction Studies
  - Public Health Sciences, MPH, MSc, PhD

- Aging, Palliative and Supportive Care Across the Life Course
  - Public Health Sciences, MPH, MSc, PhD

- Bioethics
  - Public Health Sciences, MPH, MSc, PhD

- Community Development (admissions have been administratively suspended)
  - Public Health Sciences, MPH

- Development Policy and Power
  - Public Health Sciences, MPH

- Environment and Health
  - Community Health, MScCH
  - Public Health Sciences, MPH, PhD

- Food Studies
  - Public Health Sciences, PhD

- Global Health (U of T Global Scholar)
  - Public Health Sciences, MPH, MSc (thesis only), MScCH, PhD

- Health Services and Policy Research
  - Public Health Sciences, PhD

- Neuroscience
  - Bioethics, MHSc
  - Community Health, MScCH
  - Public Health Sciences, MPH, MSc, PhD

- Public Health Policy
  - Public Health Sciences, MPH, MSc, PhD

- Resuscitation Sciences (admissions have been administratively suspended)
  - Community Health, MScCH
  - Public Health Sciences, MPH, MSc, PhD

- Sexual Diversity Studies
  - Public Health Sciences, MPH, MSc, PhD

- Women and Gender Studies
  - Public Health Sciences, MPH, PhD

- Women's Health
  - Public Health Sciences, MPH, PhD

Overview

The Dalla Lana School of Public Health is an internationally recognized community of researchers, teachers, students, practitioners, policy makers, and citizens creating new knowledge, educating change makers, advancing practice, and guiding the way to better, more equitable outcomes in population health and health systems — locally, nationally, and globally.

The Graduate Department of Public Health Sciences in the Dalla Lana School of Public Health enrolls almost 500 graduate students in its master’s and doctoral degree programs. In addition, the school has more than 40 postgraduate students in its two Royal College Residency programs: Public Health and Preventive Medicine and Occupational Medicine. The school is also engaged in teaching at the undergraduate level in the Faculty of Medicine, Faculty of Arts and Science, Bloomberg Faculty of Nursing, and University of Toronto Scarborough (UTSC).
Contact and Address

Public Health Sciences and Community Health Programs

Web: www.dlsph.utoronto.ca
Email: grad.dlsph@utoronto.ca
Telephone: (416) 978-2058
Fax: (416) 978-1883

Dalla Lana School of Public Health
Graduate Department of Public Health Sciences
University of Toronto
Room 620, 155 College Street
Toronto, Ontario M5T 3M7
Canada

Bioethics Program

Web: jcb.utoronto.ca/education-training/mhsc-in-bioethics
Email: jcb.ea@utoronto.ca
Telephone: (416) 978-1906
Fax: (416) 978-1911

Joint Centre for Bioethics (JCB)
University of Toronto
Suite 754, 155 College Street
Toronto, Ontario M5T 1P8
Canada

Public Health Sciences: Graduate Faculty

Full Members

Birn, Anne-Emanuelle - BA, MA, DSc
Bolotin, Shelly - BSc, MSc, MSc, PhD
Bondy, Susan - BA, MSc, PhD
Briollais, Laurent - BSc, MSc, PhD
Brook, Jeffrey - BS, MS, PhD
Brooks, Jennifer - BSc, MS, PhD
Chaiton, Michael - DPhil
Dupuis, Sherry - MA, PhD
Einstein, Gillian - AB, PhD
Escobar, Michael - BS, PhD
Ferris, Lorraine - AB, MA, LLM, LLM, PhD
Fisman, David - MPH, MD
Forman, Lisa - SJD
Gagnon, France - PhD (Associate Dean, Research)
Gesink, Dionne - BSc, MSc, DPhil (Associate Dean, Academic Affairs)
Gibson, Jennifer - PhD
Grace, Daniel - BA, MA, DPhil
Guta, Adrian - BA, MSW, PhD
Jha, Prabhat - DrMed, MD, PhD
Kontos, Pia - BA, MA, PhD
Lou, Wendy - DPhil
Mashford-Pringle, Angela - BS, MA, DPhil
Mishra, Sharmistha - BSc, MD
Mustard, Cameron - AB, ScD
Naylor, C. David - MD, PhD
Poland, Blake - BA, PhD
Rice, Carla - BA, PhD
Rosella, Laura - BSc, MHSc, MHSc, PhD, DPhil
Ross, Lori Elizabeth - BSc, PhD, DPhil

Rush, Brian - BA, MA, PhD
Saarela, Olli Samuli - MSS, DPhil (Graduate Coordinator)
Sass-Kortsak, Andrea - BSc, MHSc, PhD
Schwartz, Robert - BA, PhD
Scott, James - BSc, PhD
Scott, Jeremy - BSc, MS, DPhil
Sejdic, Ervin - PhD, PhD
Sellen, Daniel - BA, AM, PhD
Siddiqi, Arjumand - ScD
Siegel, Jeffrey Alexander - BS, MS, PhD
Stafford, James - BS, MS, PhD
Strike, Carol - BA, MSc, PhD, PhD (Associate Dean, Public Health Sciences)
Sun, Lei - BS, PhD
Wei, Xiaolin - MPH, MD, PhD

Members Emeriti

Andrews, David - BSc, MSc, PhD
Ashley, Mary Jane - DPH, MSc, MD
Badley, Elizabeth - BSc, MSc, PhD
Baines, Cornelia - MSc, MSc, MD
Chavez, Freida - MHSc, PhD
Chipman, Mary - BSc, MA
Coburn, David - BA, MA, PhD
Cole, Donald - MSc, MD
Eakin, Joa - BA, MA, PhD
Grundfeld, Eva - MD, PhD
House, Ronald A. - BSc, BASc, MSc, MSc, MD, MD
Hsieh, John - BSc, MA, PhD
Kelner, Merril - MA, PhD
Miller, Anthony - BA, MA, MB, BChir, MD
Millson, Margaret - BSc, MHSc, MD
Osborn, Richard - AB, PhD
Purdham, James - BSc, PhD
Shah, Chandrakant - DipCH, MBBS
Skinner, Harvey - BA, MA, PhD
Wigdor, Blossom - BA, MA, PhD
Young, Kue - DrMed, PhD

Associate Members

Abejirinde, Ibukun - BA, MSc, MD, PhD
Abner, Erika - BA, LLB, MED, MED, PhD, PhD
Abuelaish, Izzeldin - MPH, MBBS, MD
Aimone, Ashley Mariko - MSc, PhD
Aria, Parisa - MSc, MD, PhD
Al-Imari, Lina - MD
Anderson, John Arnold Edward - BS, MA, PhD
Arora, Paul - BSc, MSc, PhD
Asrar, Farhan - MSc, MPH, MD
Avery, Lisa M. - BE, MSc, PhD
Banack, Hailey Rose - BSc, BPHE, MA, PhD
Banerjee, Ananya - BSc, BSc, MSc, MSc, PhD, DPhil
Barned, Claudia - BSc, MSc, PhD
Batty, Helen - MED, MD
Beales, Amanda - BASc, MASc
Benatar, Solomon - MBCMB, DSc
Benoit, Anita - BS, MSc, MS, DPhil
Bhuivan, Shafi - MPH, MBA, MBBS, PhD
Birk-Urvoitz, Elizabeth - MD
Blair, Alexandra - BA, MSc, PhD
Bozek, Paul - BASc, ME
Campisi, Susan - BS, MHSc, PhD
Carabali Mosquera, Mabel - MD, MD, PhD
Cassidy, David - BSc, MSc, PhD
Caturay, Alexa - BSc, MPH, MD
Chum, Antony - MED, PhD
Public Health Sciences: Public Health Sciences MPH

Master of Public Health

Program Description

The MPH degree is designed to prepare the next generation of public health professionals and is aimed at students interested in professional and/or research careers in the community, academic, public, or private sectors. Applicants apply and may be admitted to one of the following fields:

- Black Health
- Epidemiology
- Family and Community Medicine
- Indigenous Health
- Nutrition and Dietetics
- Occupational and Environmental Health
- Social and Behavioural Health Sciences

The program may be taken on a full-time or part-time basis. The start date of all the fields is September each year except for the Indigenous Health field, which starts in May.

Public Health Sciences: Public Health Sciences MPH (Field: Black Health)

Master of Public Health
Field: Black Health

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School’s additional admission requirements stated below.
- Appropriate bachelor’s degree from a recognized university with a minimum mid-B average in the final year.
- At least one course in undergraduate statistics with a minimum B grade.
- Relevant work or volunteer experience.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
  - 1.0 FCE in research methods: CHL5401H Epidemiologic Methods I and CHL5402H Epidemiologic Methods II.
  - 1.0 FCE in biostatistics: CHL5201H Biostatistics I and CHL5202H Biostatistics II.
  - 1.5 FCEs in epidemiology: CHL5405H Health Trends and Surveillance, CHL5418H Scientific Overview in Epidemiology, and CHL5426H Population Perspectives for Epidemiology.
  - 0.5 FCE in public health policy: CHL5300H Public Health Policy.
  - Minimum 1.0 FCE: practicum placement.
  - Elective courses.
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
  - Full-time students normally require longer to complete the program, including time spent in the practicum placement.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F); 12 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Public Health Sciences: Public Health Sciences MPH (Field: Family and Community Medicine)

Master of Public Health
Field: Family and Community Medicine

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum mid-B average in the final year.
- At least one course in undergraduate statistics.
- Relevant work or volunteer experience.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Field: Indigenous Health

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum mid-B average in the final year.
- Completion in good standing of the public health curriculum of an accredited Canadian medical school and/or meeting the required examinable competencies of the Medical Council of Canada.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
  - 1.0 FCE core course: CHL5603Y Social, Political, and Scientific Issues in Family Medicine.
  - 0.5 FCE core course: CHL5622H Patient-Related Health Care and Public Policy in Canada.
  - 0.5 FCE core course: CHL5624H Historical, Ethical, and Philosophical Foundations of Public Health.
  - 0.5 FCE research methods course selected from the following list:
    - CHL5601H Appraising and Applying Evidence to Assist Clinical Decision-Making.
    - CHL5605H Research Issues in Family Medicine/Primary Care.
    - CHL5613H Leading Improvement in the Quality of Health Care for Community Populations.
    - CHL5616H Applied Survey Methods for Health Care Professionals.
  - 0.5 FCE: CHL6013H Required MPH Advanced Standing Practicum.
  - 1.5 FCEs in elective courses.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Program Requirements

- Completion of 5.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
  - 1.0 FCE core course: CHL5603Y Social, Political, and Scientific Issues in Family Medicine.
  - 0.5 FCE core course: CHL5605H Research Issues in Family Medicine/Primary Care or an equivalent research course, subject to approval.
  - 1.0 FCE: CHL5607H Teaching and Learning by the Health Professions: Principles and Theories and CHL5608H Teaching and Learning by the Health Professions: Practical Issues and Approaches.
  - Minimum 1.0 FCE: practicum placement.
  - Elective courses.
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Full-time students normally require longer to complete the program, including time spent in the practicum placement.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F); 12 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Field: Family and Community Medicine (Advanced-Standing Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum mid-B average in the final year.
- Completion in good standing of the public health curriculum of an accredited Canadian medical school and/or meeting the required examinable competencies of the Medical Council of Canada.

Program Requirements

- Completion of 5.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: CHL5601H Appraising and Applying Evidence to Assist Clinical Decision-Making.
  - 1.0 FCE: CHL5603Y Social, Political, and Scientific Issues in Family Medicine.
  - 0.5 FCE: CHL5605H Research Issues in Family Medicine/Primary Care or an equivalent research course, subject to approval.
  - 1.0 FCE: CHL5607H Teaching and Learning by the Health Professions: Principles and Theories and CHL5608H Teaching and Learning by the Health Professions: Practical Issues and Approaches.
- Full-time students normally require longer to complete the program, including time spent in the practicum placement.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Field: Indigenous Health

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum mid-B average in the final year.
- At least one course in undergraduate statistics with a minimum grade of B.
- Relevant lived, work, or volunteer experience.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
  - 1.0 FCE in research methods: CHL5107H Introduction to Qualitative Research or CHL5526H Indigenous Qualitative Methods and CHL5220H Introduction to Quantitative Research or approved equivalents.
Public Health Sciences: Public Health Sciences MPH (Field: Nutrition and Dietetics)

Master of Public Health
Field: Nutrition and Dietetics

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School’s additional admission requirements stated below and may be considered for the advanced-standing option.
- Appropriate bachelor’s degree in food and nutrition (or equivalent) from a recognized university with a minimum mid-B average in the final year.
- At least one course in undergraduate statistics.
- Relevant work or volunteer experience.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
  - 0.5 FCE: CHL5107H Introduction to Qualitative Research.
  - 0.5 FCE: CHL5300H Public Health Policy.
  - 0.5 FCE in quantitative research methods: CHL5220H Introduction to Quantitative Research or an approved equivalent.
  - 0.5 FCE: CHL5654H Nutrition Programs and Strategies.
  - 2.5 FCEs in foundations of practice for students who have not completed dietetic practical training (dietetic internship): CHL5650H, CHL5651H, CHL5652H, and CHL5656Y.
  - 0.5 FCE in nutrition science.
  - Minimum 1.0 FCE: practicum placement; 3.0 FCEs are required for students who wish to qualify for registration with a provincial regulatory body.
- Elective courses.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Program Length

5 sessions full-time (typical registration sequence: S/F/W/S/F); 12 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Field: Nutrition and Dietetics (Advanced-Standing Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School’s additional admission requirements stated below and may be considered for the advanced-standing option.
- Appropriate bachelor’s degree in food and nutrition (or equivalent) from a recognized university with a minimum mid-B average in the final year.
- Membership in a provincial dietetics regulatory body or equivalent in the home country. Those planning to practise in Canada must be eligible for membership in a provincial regulatory body of dietetics.
- Five years of professional work experience in clinical, community, administrative, or public health dietetics.
- At least one course in undergraduate statistics.

Program Requirements

- Completion of 5.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: CHL5004H Introduction to Public Health Sciences.
  - 0.5 FCE in public health policy: CHL5300H Public Health Policy or CHL5622H Patient-Related Health Care and Public Policy in Canada.
  - 1.0 FCE in research methods: CHL5107H Introduction to Qualitative Research and CHL5220H Introduction to Quantitative Research, or an approved approved equivalent.
0.5 FCE in population or public health nutrition from the following list:
- CHL5522H Indigenous Food Systems, Environment, and Health.
- CHL5653H Community Nutrition.
- CHL5654H Nutrition Programs and Strategies.
- NFS1212H Regulation of Food, Composition, Health Claims, and Safety.
- Other courses approved by the Program Director.

0.5 FCE in nutrition science from the following list:
- NFS1220H Clinical Nutrition.
- NFS1223H Dietary Carbohydrate and Glycaemic Index in Health and Disease.
- NFS1484H Advanced Nutrition.
- Other courses approved by the Program Director.
- Elective courses.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Program Length

3 sessions full-time advanced standing (typical registration sequence: F/W/S);
9 sessions part-time advanced standing

Time Limit

3 years full-time;
6 years part-time

*Course that may continue over a program. The course is graded when completed.*

Emphases in the MPH Program

Students in the Nutrition and Dietetics field of study may complete an emphasis by completing 1.0 full-course equivalent (FCE) in the given area. The emphasis requirements will also count toward their 10.0 FCE degree program requirements.

Emphasis: Clinical Nutrition

- 0.5 FCE: complete a four-week Clinical Nutrition practicum in a tertiary-care clinical nutrition setting, in addition to the standard practicum requirements for the field.
- 0.5 FCE from the following list:
  - NFS1220H Clinical Nutrition.
  - CHL5610H Theory and Practice of Behaviour Change in Health Professional Settings.
- A relevant research assignment for an appropriate agency focused on clinical nutrition as part of CHL5656Y Nutrition and Dietetics Culminating Project, to be approved by the program director or course instructor.

Emphasis: Management and Food Systems

- 0.5 FCE: complete a four-week Management and Food Systems practicum in a management and food provision setting, in addition to the standard practicum requirements for the field.
- 0.5 FCE: graduate-level course in management or food systems to be approved by the program director and course instructor.
- A relevant research assignment for an appropriate agency focused on management of food provision and food systems as part of CHL5656Y Nutrition and Dietetics Culminating Project, to be approved by the program director or course instructor.

Emphasis: Public Health Nutrition

- 0.5 FCE: complete a four-week Public Health Nutrition practicum in a regional, provincial, or federal public health agency setting, in addition to the standard practicum requirements for the field.
- 0.5 FCE: NFS1201H Public Health Nutrition.
- A relevant research assignment for an appropriate agency focused on public health nutrition as part of CHL5656Y Nutrition and Dietetics Culminating Project, to be approved by the program director or course instructor.

Public Health Sciences: Public Health Sciences MPH (Field: Occupational and Environmental Health)

Master of Public Health
Field: Occupational and Environmental Health

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum mid-B average in the final year.
- At least one course in undergraduate statistics.
- Relevant work or volunteer experience.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
  - 0.5 FCE: CHL5904H Perspectives in Occupational and Environmental Health — Legal and Social Context.
  - 0.5 FCE: CHL5910H Occupational and Environmental Toxicology.
  - 0.5 FCE: CHL5912H Occupational and Environmental Hygiene I.
  - 0.5 FCE in physical agents: CHL5907H Radiological Health or CHL5914H Physical Agents I-Noise.
  - 0.5 FCE in research methods: CHL5220H Introduction to Quantitative Research or CHL5401H Epidemiologic Methods I.
  - 3.0 FCEs in one of the emphases described below.
Up to 2.5 FCEs in approved courses related to the student’s area of study.
- Minimum 1.0 FCE in a practicum placement.
- Elective courses.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Full-time students may require longer to complete the program, including time spent in the practicum placement.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F);
12 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Emphases in the MPH Program

Students in the Occupational and Environmental Health field of study must complete an emphasis by completing 3.0 full-course equivalents (FCEs) in the given area. The emphasis requirements will also count toward their 10.0 FCE degree program requirements.

Emphasis: Environmental Public Health

- 0.5 FCE: CHL5201H Biostatistics I.
- 0.5 FCE: CHL5413H Public Health Sanitation.
- 0.5 FCE: CHL5416H Environmental Epidemiology.
- 0.5 FCE: CHL5903H Environmental Health.
- 0.5 FCE: CHL5921H Protecting the Public from Air Pollution.
- 0.5 FCE: CHL5922H Climate Change and Health.

Emphasis: Occupational Hygiene

- 0.5 FCE: CHL5410H Occupational Epidemiology.
- 0.5 FCE: CHL5902H Advanced Occupational Hygiene.
- 0.5 FCE: CHL5911H Occupational and Environmental Hygiene II.
- 0.5 FCE: CHL5915H Control of Occupational Hazards.
- 0.5 FCE: CHL5917H Concepts in Safety Management.
- 0.5 FCE: CHL5918H Biological Hazards in the Workplace and Community.

Public Health Sciences: Public Health Sciences MPH (Field: Social and Behavioural Health Sciences)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum mid-B average in the final year.
- Relevant work or volunteer experience.

Program Requirements

- Completion of 10.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE core course: CHL5004H Introduction to Public Health Sciences.
  - 1.0 FCE: CHL5103H Health Promotion 1 and CHL5104H Health Promotion 2.
  - 0.5 FCE: CHL5105H Social Determinants of Health.
  - 0.5 FCE: CHL5110H Theory and Practice of Program Evaluation.
  - 0.5 FCE: CHL5300H Public Health Policy.
  - 1.5 FCEs in research methods: CHL5201H Biostatistics I, CHL5401H Epidemiologic Methods I, and CHL5107H Introduction to Qualitative Research or approved equivalents.
- Minimum 1.0 FCE: practicum placement.
- Elective courses.
- Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Full-time students normally require longer to complete the program, including time spent in the practicum placement.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F);
12 sessions part-time

Time Limit

3 years full-time;
6 years part-time
Program Description

The MSc degree is designed for students interested in research and academic careers involving the development and application of statistical methodology to further our understanding of data arising in the health sciences. The program is offered in the field of Biostatistics, both full-time and part-time.

Field: Biostatistics

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Appropriate bachelor's degree from a recognized university with a minimum mid-B average in the final year.

Program Requirements

Two options are available:

- Thesis option comprising 4.0 full-course equivalents (FCEs) and a thesis.
- Coursework-only option comprising 5.0 FCEs.

Thesis MSc

- Completion of 4.0 FCEs as follows:
  - CHL5004H, CHL5207Y0, CHL5209H, CHL5210H, and CHL5250H.
  - CHL5226H or STA2112H (Mathematical Statistics I).
  - CHL5223H or STA2212H (Mathematical Statistics II).
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- A thesis written under the supervision of a thesis committee. An oral defence of the thesis is required.

Coursework-Only MSc

- Completion of 5.0 FCEs as follows:
  - CHL5004H, CHL5207Y0, CHL5209H, CHL5210H, and CHL5250H.
  - CHL5226H or STA2112H (Mathematical Statistics I).
  - CHL5223H or STA2212H (Mathematical Statistics II).
  - 1.0 FCE in electives from an approved list of courses
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

Time Limit

3 years full-time;
6 years part-time

Emphasis in the MSc Program

Students in the Biostatistics (Coursework-Only) field of study have the option to complete an emphasis by completing appropriate coursework in a given area. The emphasis requirements will also count toward their 5.0 full-course equivalent (FCE) field requirement.

Emphasis: Artificial Intelligence and Data Science

- Students must complete 1.0 FCE from the following list:
  - CHL5212H Predictive Modelling in the Health Sciences.
  - CHL5213H Methods for Analysis of Microbiome Data.
  - CHL5229H Modern Biostatistics and Statistical Learning.
  - CHL5230H Applied Machine Learning for Health Data.
- Students must complete a practical component in the area of Artificial Intelligence and Data Science through CHL5207Y0 Laboratory in Statistical Design and Analysis.

Public Health Sciences: Public Health Sciences DrPH

Doctor of Public Health

Program Description

The Doctor of Public Health (DrPH) program advances public health education, addressing evaluation and translation of evidence in policy and practice decision-making contexts. The doctoral professional program is based on existing areas of faculty expertise within the Dalla Lana School of Public Health (including Public Health Sciences and the Institute of Health Policy, Management and Evaluation). Additionally, the program is the first of its kind in English Canada and will further raise the profile of the public health workforce.

The focus of the program is to contribute to emerging needs in public health to address increasingly complex issues. Graduates will develop skills and knowledge in four major competency areas, as defined by the Council on Education for Public Health: (1) Data & Analysis; (2) Leadership, Management, Governance; (3) Policy & Programs; and (4) Education & Workforce Development.
The DrPH will allow graduates to take on advanced roles (e.g., leadership, knowledge translation) in public health policy and practice settings.

The program is offered on a full-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Master's degree in a relevant public health sciences or health services-related discipline such as a Master of Public Health, Master of Science (with a health-related thesis), Master of Health Administration, or Master of Health Science with an average grade equivalent to a B+ or better.
- At least five years of mid-level management experience in a relevant field or organization.
- Candidates with less than five years of relevant experience may also be considered in exceptional circumstances.
- At least two letters of reference.

Program Requirements

- **Coursework.** Completion of 6.5 full-course equivalents (FCEs) as follows:
  - **Year 1** (3.5 FCEs):
    - 0.5 FCE: CHL4001H Contemporary Approaches to Population Health and Health Equity
    - 0.5 FCE: CHL4006H Seminars in Public Health (Credit/No Credit)
    - 0.5 FCE: CHL5624H Historical, Ethical, and Philosophical Foundations of Public Health
    - 0.5 FCE: one research methods course, for example:
      - HAD5763H Advanced Methods in Health Services Research
      - HAD6501H Introduction to Methods for Health Professions Education Research
    - 0.5 FCE: CHL4002H Critical Appraisal and Use of Evidence
    - 0.5 FCE: CHL4003H High Performance Leadership
    - 0.5 FCE: CHL4004H Global Health Policy
    - Applied Research Project.
  - **Year 2** (2.5 FCEs):
    - 0.5 FCE: CHL4005H Governance and Financial Leadership
    - 0.5 FCE: CHL4007H Public Health Advocacy or HAD5778H Comparative Health Systems and Policy or approved equivalents
    - 0.5 FCE: CHL5132H Population Health Intervention Research (PHIR)
    - 1.0 FCE: two elective courses
    - Written comprehensive examination in public health sciences.
  - **Years 3 and 4** (0.5 FCE):
    - 0.5 FCE: HAD5765H Case Studies in Health Policy
  - Attend a weeklong, in-person intensive session each academic session (Fall, Winter, Summer) in Years 1 to 3.
  - Write a **doctoral thesis** under the supervision of an approved thesis committee (supervisor with an appointment in Public Health Sciences plus two additional faculty members).
  - A **final oral defence** of the thesis before an examination committee approved by the School of Graduate Studies.

- **Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.**

Program Length

4 years

Time Limit

6 years

- Course that may continue over a program. The course is graded when completed.

Public Health Sciences: Public Health Sciences PhD

Doctor of Philosophy

Program Description

The PhD program prepares students for research and academic careers. Fieldwork and research enhance theoretical studies and expose students to the full breadth and depth of their public health science disciplines. Applicants apply and may be admitted to one of the following fields:

- Biostatistics
- Epidemiology
- Occupational and Environmental Health
- Social and Behavioural Health Sciences

The PhD program may be completed on a full-time or flexible-time basis.

With the approval of the graduate chair, some applicants may be admitted to a flexible-time PhD program. This program will benefit mature students with career obligations, and applicants must demonstrate that they are practising professionals. Degree requirements for the flexible-time program are identical to those for the full-time PhD program. Students are required to register full-time for the first four years of their program, after which they may register part-time. A plan of study and research activities will be negotiated at initial registration, to be reviewed and updated annually.

Public Health Sciences: Public Health Sciences PhD (Field: Biostatistics)

Doctor of Philosophy

Field: Biostatistics
PhD Program (Full-Time and Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Master's degree in a public health science-related discipline from a recognized university, with a minimum A– standing.
- Demonstrated educational and/or professional experience that indicates a capacity to undertake research-oriented doctoral studies.

Program Requirements

- **Coursework.** Completion of 5.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: CHL5005H Professional Skills for Doctoral Students in Public Health (Credit/No Credit)
  - 1.0 FCE: CHL5208Y0 Advanced Laboratory in Statistical Design and Analysis
  - 0.5 FCE: CHL5209H Survival Analysis I
  - 0.5 FCE: CHL5210H Categorical Data Analysis
  - 0.5 FCE: CHL5250H+ Special Topics in Biostatistics (seminar)
  - 0.5 FCE: CHL5260H0 Doctoral Seminar Series in Biostatistics
  - 1.0 FCE: STA2112H and STA2212H Mathematical Statistics
  - 0.5 FCE: elective course that relates to the student's area of study
  - Students who have taken their MSc in the department may have taken some or all of these courses already. In this case, their program of study will be designed with consultation of the program director at the time of admission.
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Demonstrated proficiency in **statistics or research methods.**
- A written **qualifying examination** in biostatistics.
- A departmental defence of the **dissertation proposal.**
- Writing of a **PhD dissertation** under the supervision of an approved dissertation committee (supervisor plus two additional faculty members).
- A **departmental defence** of the dissertation prior to the SGS Final Oral Examination.
- A **final oral defence** of the dissertation before an examination committee approved by the School of Graduate Studies.

Program Length

4 years full-time; 6 years flexible-time

Time Limit

6 years full-time; 8 years flexible-time

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PhD Program (Full-Time and Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Master's degree in a public health science-related discipline from a recognized university, with a minimum A– standing.
- Demonstrated educational and/or professional experience that indicates a capacity to undertake research-oriented doctoral studies.

Program Requirements

- **Coursework.** Completion of 4.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: CHL5005H Professional Skills for Doctoral Students in Public Health (Credit/No Credit)
  - 1.0 FCE: CHL5404H and CHL5408H Research Methods
  - 1.0 FCE: CHL5406H and CHL5424H Quantitative Methods
  - 0.5 FCE: CHL5423H0 Doctoral Seminar in Epidemiology
  - 0.5 FCE: CHL5428H Epidemiological Methods for Causal Mediation Analyses
  - 0.5 FCE: elective courses that relate to the student's area of study
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Demonstrated proficiency in **statistics or research methods.**
- A written **qualifying examination** in epidemiology.
- A departmental defence of the **dissertation proposal.**
- Writing of a **PhD dissertation** under the supervision of an approved dissertation committee (supervisor plus two additional faculty members).
- A **departmental defence** of the dissertation prior to the SGS Final Oral Examination. On the recommendation of the supervisory committee and special approval from their departmental Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental defence and proceed directly to the SGS Final Oral Exam.
- A **final oral defence** of the dissertation before an examination committee approved by the School of Graduate Studies.

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Public Health Sciences: Public Health Sciences PhD (Field: Epidemiology)

Doctor of Philosophy
Field: Epidemiology

PhD Program (Full-Time and Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Master's degree in a public health science-related discipline from a recognized university, with a minimum A– standing.
- Demonstrated educational and/or professional experience that indicates a capacity to undertake research-oriented doctoral studies.

Program Requirements

- **Coursework.** Completion of 5.0 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: CHL5005H Professional Skills for Doctoral Students in Public Health (Credit/No Credit)
  - 1.0 FCE: CHL5208Y0 Advanced Laboratory in Statistical Design and Analysis
  - 0.5 FCE: CHL5209H Survival Analysis I
  - 0.5 FCE: CHL5210H Categorical Data Analysis
  - 0.5 FCE: CHL5250H+ Special Topics in Biostatistics (seminar)
  - 0.5 FCE: CHL5260H0 Doctoral Seminar Series in Biostatistics
  - 1.0 FCE: STA2112H and STA2212H Mathematical Statistics
  - 0.5 FCE: elective course that relates to the student's area of study
  - Students who have taken their MSc in the department may have taken some or all of these courses already. In this case, their program of study will be designed with consultation of the program director at the time of admission.
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Demonstrated proficiency in **statistics or research methods.**
- A written **qualifying examination** in epidemiology.
- A departmental defence of the **dissertation proposal.**
- Writing of a **PhD dissertation** under the supervision of an approved dissertation committee (supervisor plus two additional faculty members).
- A **departmental defence** of the dissertation prior to the SGS Final Oral Examination. On the recommendation of the supervisory committee and special approval from their departmental Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental defence and proceed directly to the SGS Final Oral Exam.
- A **final oral defence** of the dissertation before an examination committee approved by the School of Graduate Studies.
Program Length

4 years full-time; 6 years flexible-time

Time Limit

6 years full-time; 8 years flexible-time

Course that may continue over a program. The course is graded when completed.

Emphasis in the PhD Program

Students in the Epidemiology field of study have the option to complete an emphasis by completing appropriate coursework in a given area. The emphasis requirements will also count toward, but may exceed, the 4.0 full-course equivalent (FCE) field requirement.

Emphasis: Artificial Intelligence and Data Science

- Students must complete 1.5 FCEs from the following list:
  - CHL5212H Predictive Modelling in the Health Sciences
  - CHL5213H Methods for Analysis of Microbiome Data
  - CHL5229H Modern Biostatistics and Statistical Learning
  - CHL5230H Applied Machine Learning for Health Data
  - CHL5429H Advanced Analytic Methods for Bias in Epidemiologic Studies
  - CHL3020H Ethics and Artificial Intelligence for Health
  - HAD5306H Introduction to Health Services Research and the Use of Health Administrative Data
  - MHI2012H Introduction to Big Data for Health: Foundations and Methodologies
  - Other course(s) approved by the Program Director.

Public Health Sciences: Public Health Sciences PhD (Field: Occupational and Environmental Health)

Doctor of Philosophy
Field: Occupational and Environmental Health

PhD Program (Full-Time and Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School’s additional admission requirements stated below.
- Master's degree in a public health science-related discipline from a recognized university, with a minimum A– standing.
- Demonstrated educational and/or professional experience that indicates a capacity to undertake research-oriented doctoral studies.

Program Requirements

- Coursework. Completion of 3.5 full-course equivalents (FCEs) as follows:
  - 0.5 FCE: CHL5005H Professional Skills for Doctoral Students in Public Health (Credit/No Credit)
  - 0.5 FCE in either occupational or environmental health
  - 1.0 FCE in advanced research methods (including biostatistics)
  - 0.5 FCE: doctoral seminar in occupational and environmental health
  - 1.0 FCE: elective courses that relate to the student’s area of study
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- Demonstrated proficiency in statistics or research methods.
- A written qualifying examination in occupational and environmental health.
- A departmental defence of the dissertation proposal.
- Writing of a PhD dissertation under the supervision of an approved dissertation committee (supervisor plus two additional faculty members).
- A departmental defence of the dissertation prior to the SGS Final Oral Examination. On the recommendation of the supervisory committee and special approval from their departmental Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental defence and proceed directly to the SGS Final Oral Exam.
- A final oral defence of the dissertation before an examination committee approved by the School of Graduate Studies.

Program Length

4 years full-time; 6 years flexible-time

Time Limit

6 years full-time; 8 years flexible-time

Public Health Sciences: Public Health Sciences PhD (Field: Social and Behavioural Health Sciences)

Doctor of Philosophy
Field: Social and Behavioural Health Sciences

PhD Program (Full-Time and Flexible-Time)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School’s additional admission requirements stated below.
• Master's degree in a public health science-related discipline from a recognized university, with a minimum A– standing.
• Demonstrated educational and/or professional experience that indicates a capacity to undertake research-oriented doctoral studies.

Program Requirements

• **Coursework.** Completion of 3.5 full-course equivalents (FCEs) as follows:
  o 0.5 FCE: CHL5005H Professional Skills for Doctoral Students in Public Health (Credit/No Credit)
  o 0.5 FCE: CHL5101H Social and Behavioural Theory and Health
  o 0.5 FCE: CHL5102H Social and Political Forces in Health
  o 1.0 FCE in approved research methods courses
  o 1.0 FCE: elective courses that relate to the student’s area of study
  o Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.

• Demonstrated proficiency in **statistics or research methods.**
• A written **qualifying examination** in social and behavioural health sciences.
• A departmental defence of the **dissertation proposal.**
• Writing of a **PhD dissertation** under the supervision of an approved dissertation committee (supervisor plus two additional faculty members).
• A **departmental defence** of the dissertation prior to the SGS Final Oral Examination. On the recommendation of the supervisory committee and special approval from their departmental Graduate Chair or Coordinator, candidates have the opportunity to waive the departmental defence and proceed directly to the SGS Final Oral Exam.
• A **final oral defence** of the dissertation before an examination committee approved by the School of Graduate Studies.

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School’s additional admission requirements stated below.
• Normally, an appropriate bachelor's degree and a recognized degree in one of the health sciences (e.g., MD, BScN, BScOT, BScPT, BSW) or equivalent with a minimum mid-B average in the final year. Applicants from other disciplines are considered on an individual basis.
• The program favours individuals with outstanding academic credentials and demonstrated evidence of scholarly ability and personal maturity.
• Potential that the applicant will provide significant bioethics leadership in his or her home institution or local community upon completion of the MHSc in Bioethics.

Program Requirements

• This course-based program is offered in modular format in 24 two-day Thursday/Friday blocks from September to April, normally over two years; certain international students may complete all coursework in one academic year. The program does not include a distance-learning option.
• A major **paper** of publishable quality on a topic of the student’s choice.
• Students must complete 8.5 full-course equivalents (FCEs), including a 1.0 FCE practicum as outlined below.
• Courses as outlined below.

Program Length

4 years full-time; 6 years flexible-time

Time Limit

6 years full-time; 8 years flexible-time

Public Health Sciences: Bioethics MHSc

Master of Health Science

Admissions have been administratively suspended for 2023-24 intake.

Program Description

The MHSc in Bioethics is a two-year, course-based program with no thesis requirement. It is conducted in modular format to allow high-achieving professionals to earn a master’s degree without interrupting their careers. The program's interactive, problem-based learning approach provides students with knowledge and skills that can be applied to a variety of health, health care, and health research contexts. Expert faculty and guest lecturers help students bring theory and practice together to address real-world ethical challenges. Students interested in a research-stream program should consider the Collaborative Specialization in Bioethics.

Program Requirements

• CHL3001Y Core Topics in Bioethics
• CHL3003Y Empirical Approaches in Bioethics
• CHL3005H Legal Approaches to Bioethics
• HAD5771H Resource Allocation Ethics
• PHL2146Y Topics in Bioethics
Year 2

- CHL3002Y Teaching Bioethics
- CHL3004Y Ethics and Health Institutions
- CHL3006H Writing in Bioethics
- CHL3008Y Applied Learning in Bioethics (practicum)
- CHL3051H Research Ethics
- CHL3052H Practical Bioethics (capstone course)

0 Course that may continue over a program. The course is graded when completed.

Public Health Sciences: Bioethics MHSc (Effective 2024-25)

Master of Health Science

Effective September 1, 2024.

Program Description

The MHSc in Bioethics is a two-year, course-based, professional master's degree program. It is designed with a hybrid delivery model (i.e., both in-person and online learning components) and a modular format (i.e., courses offered every two to three weeks on specified days) to allow high-achieving professionals to earn a master's degree without interrupting their careers.

Students are expected to participate in in-person residencies on campus (normally a duration of five days) in each academic session. The in-person residencies are designed for immersive and social learning activities (e.g., developing and practising skills in applied bioethics) and for the in-person component of hybrid MHSc courses. Required core MHSc courses are designed as hybrid (i.e., roughly one-third of the course conducted in person and two-thirds online) or online courses with both synchronous and asynchronous elements. Most electives are also delivered using a hybrid or online modality.

The program's interactive, problem-based learning approach provides students with knowledge and skills that can be applied to a variety of health, health care, and health research contexts. Interaction with expert faculty and guest speakers, a practicum experience, and an independent capstone project in applied bioethics will help students bring theory and practice together to address real-world bioethics challenges. (Note: students interested in a research-stream program should consider the Collaborative Specialization in Bioethics.)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- Normally, an appropriate bachelor's degree, with a minimum B+ average in the final year, and a recognized professional degree in one of the health disciplines (e.g., MD, BScN, BScOT, BScPT, BSW) or equivalent. Applicants from other disciplines are considered on an individual basis.

- At least three years of relevant full-time professional work experience. Applicants with less experience may be considered in exceptional circumstances.
- The program favours individuals with outstanding academic credentials, demonstrated evidence of scholarly ability and personal maturity, and potential for significant bioethics leadership in the applicant's home institution, discipline, or local community upon completion of the MHSc in Bioethics.

Program Requirements

- On-campus attendance at a weeklong, in-person residency each academic session (Fall, Winter, and Summer in Year 1; Fall and Winter in Year 2).
- Students must successfully complete a total of 7.0 full-course equivalents (FCEs) as follows:
  - CHL3011H Theoretical Foundations of Bioethics I* (0.5 FCE)
  - CHL3012H Theoretical Foundations of Bioethics II* (0.5 FCE)
  - CHL3001H Contemporary Issues in Bioethics* (0.5 FCE)
  - CHL3003H Empirical Approaches in Bioethics* (0.5 FCE)
  - CHL3005H Legal Approaches to Bioethics* (0.5 FCE)
  - CHL3050H Professional Skills in Applied Bioethics Practice** (0.5 FCE; Credit/No Credit)
  - CHL3008Y Practicum in Bioethics (1.0 FCE)
  - CHL3052Y Capstone Project in Applied Bioethics (1.0 FCE)
  - Elective courses (2.0 FCEs).

Program Length

5 sessions full-time (typical registration sequence: F/W/S/F/W)

Time Limit

3 years full-time

* Hybrid course: 8 hours during residency week plus 16 hours online.
** In-person course: all contact hours during residency weeks.

Public Health Sciences: Community Health MScCH

Master of Science in Community Health

Program Description

The MScCH is an innovative program designed to meet the needs of experienced health professionals who wish to enhance their knowledge and skills in public health. It is intended for practising health professionals and/or individuals who can demonstrate significant experience in the health-care field. Five fields are offered:

- Addictions and Mental Health
- Family and Community Medicine
- Health Practitioner Teacher Education
- Occupational Health Care
- Wound Prevention and Care

The program may be taken on a full-time or part-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Dalla Lana School's additional admission requirements stated below.
- A bachelor's degree from a recognized university in a public health specialty and/or one of the regulated health professions in Ontario with the equivalent of a minimum mid-B average in the final academic year.
- Relevant academic preparation and professional experience as a public health, community, or clinical practitioner.
- Some fields (i.e., Family and Community Medicine, Occupational Health Care, and Wound Prevention and Care) require appropriate certification/licensure in a regulated health profession and may require a valid license to practise in Canada or the student's home jurisdiction.

Program Requirements

- The MScCH is a **coursework**-only program which requires the completion of **5.0 full-course equivalents (FCEs)** as follows:
  - 0.5 FCE of a core public health sciences subject
  - 0.5 to 1.0 FCE in supervised field placements or practica
  - Normally 2.5 FCEs in field-specific required courses
  - 1.0 to 1.5 FCEs in elective courses
  - Students may elect to take up to 0.5 FCE on a Credit/No Credit (CR/NCR) basis. See the CR/NCR-eligible courses in the course list section.
- A diploma in Community Health may be awarded in exceptional circumstances to students who have completed 70% of the program requirements (at least 3.5 full-course equivalents (FCEs), including the required courses for the field, and with the approval of the department).

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 9 sessions part-time

Time Limit

3 years full-time; 6 years part-time

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CHL5004H</td>
<td>Introduction to Public Health Sciences</td>
</tr>
<tr>
<td>CHL5005H</td>
<td>Professional Skills for Doctoral Students in Public Health (Credit/No Credit)</td>
</tr>
</tbody>
</table>

Students in the Master of Public Health, Master of Science, Master of Science in Community Health, Doctor of Philosophy, and Doctor of Public Health may elect to be assessed on a Credit/No Credit basis in courses marked by the symbol \( \text{⌘} \) up to a total of 0.5 FCE.

**Master of Health Science, Master of Public Health, Master of Science, MSc in Community Health, and Doctor of Philosophy Courses**

**Bioethics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL3001H</td>
<td>Contemporary Issues in Bioethics</td>
</tr>
<tr>
<td>CHL3003H</td>
<td>Empirical Approaches in Bioethics</td>
</tr>
<tr>
<td>CHL3005H</td>
<td>Legal Approaches in Bioethics</td>
</tr>
<tr>
<td>CHL3008Y0</td>
<td>Practicum in Bioethics</td>
</tr>
<tr>
<td>CHL3011H</td>
<td>Theoretical Foundations of Bioethics I</td>
</tr>
<tr>
<td>CHL3012H</td>
<td>Theoretical Foundations of Bioethics II</td>
</tr>
<tr>
<td>CHL3050H0</td>
<td>Professional Skills in Applied Bioethics Practice (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL3052Y0</td>
<td>Capstone Project in Applied Bioethics</td>
</tr>
</tbody>
</table>

\(^0\) Course that may continue over a program. The course is graded when completed.

**Biostatistics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL5201H(\text{⌘})</td>
<td>Biostatistics I</td>
</tr>
<tr>
<td>CHL5202H(\text{⌘})</td>
<td>Biostatistics II</td>
</tr>
<tr>
<td>CHL5203H(\text{⌘})</td>
<td>Survey Design and Social Research Methods in Public Health</td>
</tr>
<tr>
<td>CHL5207Y(\text{⌘})</td>
<td>Laboratory in Statistical Design and Analysis</td>
</tr>
<tr>
<td>CHL5208Y(\text{⌘})</td>
<td>Advanced Laboratory in Statistical Design and Analysis</td>
</tr>
<tr>
<td>CHL5209H(\text{⌘})</td>
<td>Survival Analysis I</td>
</tr>
<tr>
<td>CHL5210H(\text{⌘})</td>
<td>Categorical Data Analysis</td>
</tr>
<tr>
<td>CHL5212H(\text{⌘})</td>
<td>Predictive Modelling in the Health Sciences</td>
</tr>
<tr>
<td>CHL5213H(\text{⌘})</td>
<td>Methods for Analysis of Microbiome Data</td>
</tr>
</tbody>
</table>

Public Health Sciences: Public Health Sciences MPH, MSc, DrPh, PhD, Bioethics MHSc, Community Health MScCH Courses

Core Courses
**Clinical Public Health**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL5220H</td>
<td>Introduction to Quantitative Research</td>
</tr>
<tr>
<td>CHL5222H</td>
<td>Analysis of Correlated Data</td>
</tr>
<tr>
<td>CHL5223H</td>
<td>Applied Bayesian Methods</td>
</tr>
<tr>
<td>CHL5224H</td>
<td>Modern Statistical Genetics</td>
</tr>
<tr>
<td>CHL5225H</td>
<td>Advanced Statistical Methods for Clinical Trials</td>
</tr>
<tr>
<td>CHL5226H</td>
<td>Mathematical Foundations of Biostatistics</td>
</tr>
<tr>
<td>CHL5227H</td>
<td>Introduction to Statistical Methods for Clinical Trials</td>
</tr>
<tr>
<td>CHL5228H</td>
<td>Statistical Methods for Genetics and Genomics Research Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL5229H</td>
<td>Modern Biostatistics and Statistical Learning (prerequisites: CHL5226H, CHL5231H)</td>
</tr>
<tr>
<td>CHL5230H</td>
<td>Applied Machine Learning for Health Data</td>
</tr>
<tr>
<td>CHL5231H</td>
<td>Statistical Foundations of Predictive Modeling in Biostatistics</td>
</tr>
<tr>
<td>CHL5250H</td>
<td>Special Topics in Biostatistics</td>
</tr>
<tr>
<td>CHL5260H</td>
<td>Doctoral Seminar Series in Biostatistics</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL5233H</td>
<td>Planetary and Global Health Ethics</td>
</tr>
</tbody>
</table>

**Epidemiology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL5401H</td>
<td>Epidemiologic Methods I</td>
</tr>
<tr>
<td>CHL5402H</td>
<td>Epidemiologic Methods II</td>
</tr>
<tr>
<td>CHL5403H</td>
<td>Epidemiology of Non-Communicable Diseases</td>
</tr>
<tr>
<td>CHL5404H</td>
<td>Research Methods I</td>
</tr>
<tr>
<td>CHL5405H</td>
<td>Health Trends and Surveillance</td>
</tr>
<tr>
<td>CHL5406H</td>
<td>Quantitative Methods for Biomedical Research</td>
</tr>
<tr>
<td>CHL5407H</td>
<td>Categorical Data Analysis for Epidemiologic Studies</td>
</tr>
<tr>
<td>CHL5408H</td>
<td>Research Methods II</td>
</tr>
<tr>
<td>CHL5409H</td>
<td>Cancer Epidemiology</td>
</tr>
<tr>
<td>CHL5410H</td>
<td>Occupational Epidemiology</td>
</tr>
<tr>
<td>CHL5412H</td>
<td>Communicable Disease Epidemiology, Prevention, and Control</td>
</tr>
<tr>
<td>CHL5413H</td>
<td>Public Health Sanitation</td>
</tr>
<tr>
<td>CHL5416H</td>
<td>Environmental Epidemiology</td>
</tr>
<tr>
<td>CHL5417H</td>
<td>Tobacco and Health: From Cells to Society</td>
</tr>
<tr>
<td>CHL5418H</td>
<td>Scientific Overview in Epidemiology</td>
</tr>
<tr>
<td>CHL5419H</td>
<td>Social Epidemiology</td>
</tr>
<tr>
<td>CHL5420H</td>
<td>Global Health Research Methods</td>
</tr>
<tr>
<td>CHL5423H</td>
<td>Doctoral Seminar in Epidemiology</td>
</tr>
<tr>
<td>CHL5424H</td>
<td>Advanced Quantitative Methods in Epidemiology</td>
</tr>
<tr>
<td>CHL5425H</td>
<td>Mathematical Epidemiology of Communicable Diseases: An Introduction</td>
</tr>
<tr>
<td>CHL5426H</td>
<td>Population Perspectives for Epidemiology</td>
</tr>
</tbody>
</table>

**Black Health**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CHL5820H</td>
<td>African/Black Health I: Sociohistorical Overview of Black Health</td>
</tr>
<tr>
<td>CHL5821H</td>
<td>African/Black Health II: Chronic Diseases; Sexual and Reproductive Health: Across the Lifespan (prerequisite: CHL5820H)</td>
</tr>
<tr>
<td>CHL5822H</td>
<td>Decolonizing Theory and Methods in African/Black Health Research (prerequisite: CHL5820H)</td>
</tr>
<tr>
<td>CHL5823H</td>
<td>African/Black Practicum Preparation (prerequisite: CHL5820H)</td>
</tr>
<tr>
<td>CHLXXXH</td>
<td>Decolonizing Theory and Methods in African/Black Health Research (pending approval)</td>
</tr>
<tr>
<td>CHLXXXH</td>
<td>Transnational Black Health Policy and Practice (pending approval)</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL5825H</td>
<td>Mathematical Epidemiology of Communicable Diseases: An Introduction</td>
</tr>
<tr>
<td>CHL5826H</td>
<td>Population Perspectives for Epidemiology</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>-------------</td>
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</tr>
<tr>
<td>CHL5428H</td>
<td>Epidemiological Methods for Causal Mediation Analyses</td>
</tr>
<tr>
<td>CHL5429H</td>
<td>Advanced Analytic Methods for Bias in Epidemiologic Studies (prerequisites: at least two graduate-level epidemiology courses and at least two graduate-level biostatistics courses; or by permission of the instructor)</td>
</tr>
<tr>
<td>CHL5430H</td>
<td>Fundamentals of Genetic Epidemiology</td>
</tr>
<tr>
<td>CHL5431H</td>
<td>Spatial Epidemiology: Introductory Methods and Applications</td>
</tr>
<tr>
<td>CHL5432H</td>
<td>Epidemiological Methods for Communicable Diseases (prerequisites: CHL5201H, CHL5401H, and CHL5412H; or equivalent)</td>
</tr>
<tr>
<td>CHL5433H</td>
<td>Planetary Health</td>
</tr>
<tr>
<td>CHL5434H</td>
<td>Introduction to Knowledge Synthesis for Knowledge Users</td>
</tr>
<tr>
<td>CHL5435H</td>
<td>Methods in Reproductive and Perinatal Epidemiology (prerequisites: CHL5202H, CHL5402H, or equivalent)</td>
</tr>
<tr>
<td>JRH1000H</td>
<td>Introduction to Pharmacoepidemiology</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.*

### Family and Community Medicine

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL5601H</td>
<td>Appraising and Applying Evidence to Assist Clinical Decision-Making</td>
</tr>
<tr>
<td>CHL5603Y</td>
<td>Social, Political, and Scientific Issues in Family Medicine</td>
</tr>
<tr>
<td>CHL5605H</td>
<td>Research Issues in Family Medicine/Primary Care</td>
</tr>
<tr>
<td>CHL5606H</td>
<td>Research in Family Medicine/Primary Care Methodological Applications</td>
</tr>
<tr>
<td>CHL5607H</td>
<td>Teaching and Learning by the Health Professions: Principles and Theories</td>
</tr>
<tr>
<td>CHL5608H</td>
<td>Teaching and Learning by the Health Professions: Practical Issues and Approaches</td>
</tr>
<tr>
<td>CHL5609H</td>
<td>Continuing Education in the Health Professions</td>
</tr>
<tr>
<td>CHL5610H</td>
<td>Theory and Practice of Behaviour Change in Health Professional Settings</td>
</tr>
<tr>
<td>CHL5611H</td>
<td>Continuing Education Planning, Management and Evaluation in the Health Professions</td>
</tr>
</tbody>
</table>

### Global Health

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CHL5700H</td>
<td>Global Health</td>
</tr>
<tr>
<td>CHL5701H</td>
<td>Doctoral Seminar, Collaborative Specialization in Global Health (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL5702H</td>
<td>History of International Health</td>
</tr>
<tr>
<td>CHL5704H</td>
<td>International Human Rights Law and Global Health: The Right to Health in Theory and Practice</td>
</tr>
<tr>
<td>CHL5706H</td>
<td>Women and Women's Health in Countries in Conflict</td>
</tr>
<tr>
<td>CHL5707H</td>
<td>Health: An Engine for the Journey to Peace</td>
</tr>
<tr>
<td>CHL5708H</td>
<td>Global Maternal, Neonatal, and Child Health Development</td>
</tr>
</tbody>
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### Indigenous Health

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL5520H</td>
<td>Indigenous Health</td>
</tr>
<tr>
<td>CHL5521H</td>
<td>Indigenous Practicum Preparation</td>
</tr>
<tr>
<td>CHL5522H</td>
<td>Indigenous Food Systems, Environment, and Health</td>
</tr>
<tr>
<td>CHL5523H</td>
<td>Indigenous Health and Social Policy</td>
</tr>
<tr>
<td>CHL5524H</td>
<td>Indigenous Health Theory and Methods</td>
</tr>
<tr>
<td>CHL5525H</td>
<td>Indigenous Social Determinants of Health in Canada</td>
</tr>
<tr>
<td>CHL5526H</td>
<td>Indigenous Qualitative Methods</td>
</tr>
</tbody>
</table>

6 Course that may continue over a program. The course is graded when completed.

### Nutrition and Dietetics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL5650H</td>
<td>Foundations of Practice I</td>
</tr>
<tr>
<td>CHL5651H</td>
<td>Foundations of Practice II</td>
</tr>
<tr>
<td>CHL5652H</td>
<td>Foundations of Practice III</td>
</tr>
<tr>
<td>CHL5653H</td>
<td>Community Nutrition</td>
</tr>
<tr>
<td>CHL5654H</td>
<td>Nutrition Programs and Strategies</td>
</tr>
<tr>
<td>CHL5655H</td>
<td>Nutrition Metabolism for Public Health Nutrition Professionals</td>
</tr>
<tr>
<td>CHL5656Y</td>
<td>Nutrition and Dietetics Culminating Project (prerequisites: CHL5650H, CHL5651H, and CHL5652H)</td>
</tr>
<tr>
<td>NFS1201H</td>
<td>Public Health Nutrition</td>
</tr>
<tr>
<td>NFS1484H</td>
<td>Advanced Nutrition</td>
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### Public Health Policy

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL5300H</td>
<td>Public Health Policy</td>
</tr>
<tr>
<td>CHL5308H</td>
<td>Tools and Approaches for Public Health Policy Analysis and Evaluation</td>
</tr>
<tr>
<td>CHL5309H</td>
<td>Advanced Analysis of Topical Issues in Public Health Policy</td>
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### Social and Behavioural Health Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL5914H</td>
<td>Physical Agents I — Noise</td>
</tr>
<tr>
<td>CHL5915H</td>
<td>Control of Occupational Hazards</td>
</tr>
<tr>
<td>CHL5917H</td>
<td>Concepts in Safety Management</td>
</tr>
<tr>
<td>CHL5918H</td>
<td>Biological Hazards in the Workplace and Community</td>
</tr>
<tr>
<td>CHL5919H</td>
<td>Public Health Mycology</td>
</tr>
<tr>
<td>CHL5920H</td>
<td>Occupational and Environmental Health Doctoral Seminar Series</td>
</tr>
<tr>
<td>CHL5921H</td>
<td>Protecting the Public from Air Pollution</td>
</tr>
<tr>
<td>CHL5922H</td>
<td>Climate Change and Health</td>
</tr>
<tr>
<td>CHL5950H</td>
<td>Special Topics in Occupational and Environmental Health</td>
</tr>
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</table>

### Occupational and Environmental Health

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL5902H</td>
<td>Advanced Occupational Hygiene</td>
</tr>
<tr>
<td>CHL5903H</td>
<td>Environmental Health</td>
</tr>
<tr>
<td>CHL5904H</td>
<td>Perspectives in Occupational and Environmental Health — Legal and Social Context</td>
</tr>
<tr>
<td>CHL5905H</td>
<td>Clinical Studies in Occupational Health</td>
</tr>
<tr>
<td>CHL5907H</td>
<td>Radiological Health</td>
</tr>
<tr>
<td>CHL5910H</td>
<td>Occupational and Environmental Hygiene I</td>
</tr>
<tr>
<td>CHL5911H</td>
<td>Occupational and Environmental Hygiene II</td>
</tr>
<tr>
<td>CHL5912H</td>
<td>Occupational and Environmental Toxicology</td>
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### Public Health Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>JRH5124H</td>
<td>Public Health Ethics</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CHL5110H</td>
<td>Theory and Practice of Program Evaluation</td>
</tr>
<tr>
<td>CHL5113H</td>
<td>Global Migration and Health</td>
</tr>
<tr>
<td>CHL5114H</td>
<td>Health Communications</td>
</tr>
<tr>
<td>CHL5115H</td>
<td>Qualitative Analysis and Interpretation</td>
</tr>
<tr>
<td>CHL5116H</td>
<td>Health-in-All-Policies: Approaches to Achieve a Healthier City</td>
</tr>
<tr>
<td>CHL5117H</td>
<td>Women, Children, and Adolescent Health: A Glocal Perspective</td>
</tr>
<tr>
<td>CHL5118H</td>
<td>International Health, Human Rights, and Peace-Building</td>
</tr>
<tr>
<td>CHL5120H</td>
<td>Population Health Perspectives on Mental Health and Addictions</td>
</tr>
<tr>
<td>CHL5121H</td>
<td>Genomics, Bioethics, and Public Policy</td>
</tr>
<tr>
<td>CHL5122H</td>
<td>Advanced Qualitative Research: Framing, Writing, Beyond (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL5126H</td>
<td>Building Community Resilience</td>
</tr>
<tr>
<td>CHL5128H</td>
<td>Intersectionality, Inequity, and Public Health</td>
</tr>
<tr>
<td>CHL5129H</td>
<td>Introduction to Mixed Methods Research for Public Health</td>
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<tr>
<td>CHL5130H</td>
<td>Advanced Methods in Applied Indigenous Health Research</td>
</tr>
<tr>
<td>CHL5131H</td>
<td>Theoretical Foundations of Qualitative Health Research</td>
</tr>
<tr>
<td>CHL5132H</td>
<td>Population Health Intervention Research (PHIR)</td>
</tr>
<tr>
<td>CHL5133H</td>
<td>Evaluating Quantitative Public Health Research</td>
</tr>
<tr>
<td>CHL5134H</td>
<td>Institutional Ethnography</td>
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<tr>
<td>CHL5135H</td>
<td>Ecological Public Health</td>
</tr>
<tr>
<td>CHL5136H</td>
<td>Race, Ethnicity, and Culture in Health (REACH)</td>
</tr>
<tr>
<td>CHL5137H</td>
<td>Theory and Practice of Community-Based Research in Public Health</td>
</tr>
<tr>
<td>CHL5150H</td>
<td>Data Collection Methods for Research and Evaluation Projects</td>
</tr>
<tr>
<td>JRP1000H</td>
<td>Theory and Method for Qualitative Researchers: An Introduction</td>
</tr>
<tr>
<td>CHL5690H</td>
<td>MScCH Required Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL5691H</td>
<td>MScCH Optional Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL6010Y</td>
<td>Required MPH Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL6011H</td>
<td>Required Practicum Extension (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL6012Y</td>
<td>Long Extension to Required Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL6013H</td>
<td>Required MPH Advanced Standing Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL6020Y</td>
<td>Optional MPH Practicum (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL6021H</td>
<td>Optional Practicum Extension (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL6022Y</td>
<td>Long Extension to Optional Practicum (Credit/No Credit)</td>
</tr>
</tbody>
</table>

0 Course that may continue over a program. The course is graded when completed, or credit is given when the course is completed.

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

### Reading Courses and Research Projects

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL7001H</td>
<td>Directed Reading</td>
</tr>
<tr>
<td>CHL7002H</td>
<td>Directed Research</td>
</tr>
</tbody>
</table>

### Special Topics Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL8001H</td>
<td>Selected Topics in Public Health Issues</td>
</tr>
<tr>
<td>CHL8002H</td>
<td>Selected Topics in Public Health: Methods and Approaches to Research and Practice</td>
</tr>
</tbody>
</table>

### Doctor of Public Health Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHL4001H</td>
<td>Contemporary Approaches to Population Health and Health Equity</td>
</tr>
<tr>
<td>CHL4002H</td>
<td>Critical Appraisal and Use of Evidence</td>
</tr>
<tr>
<td>CHL4003H</td>
<td>High Performance Leadership</td>
</tr>
<tr>
<td>CHL4004H</td>
<td>Global Health Policy</td>
</tr>
<tr>
<td>CHL4005H</td>
<td>Governance and Financial Leadership</td>
</tr>
<tr>
<td>CHL4006H</td>
<td>Seminars in Public Health (Credit/No Credit)</td>
</tr>
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</table>

### Practica Courses

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL5620Y</td>
<td>Practicum in Family Community Medicine (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL5621H</td>
<td>Extension to Practicum in Family Community Medicine (Credit/No Credit)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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</tr>
<tr>
<td>CHL4007H</td>
<td>Public Health Advocacy (Credit/No Credit)</td>
</tr>
<tr>
<td>CHL5132H</td>
<td>Population Health Intervention Research (PHIR)</td>
</tr>
<tr>
<td>CHL5624H</td>
<td>Historical, Ethical, and Philosophical Foundations of Public Health</td>
</tr>
<tr>
<td>HAD5763H</td>
<td>Advanced Methods in Health Services Research</td>
</tr>
<tr>
<td>HAD5765H</td>
<td>Case Studies in Health Policy</td>
</tr>
<tr>
<td>HAD5778H</td>
<td>Comparative Health Systems and Policy</td>
</tr>
<tr>
<td>HAD6501H</td>
<td>Introduction to Methods/Methodologies for HPER</td>
</tr>
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</table>

*Course that may continue over a program. The course is graded when completed.*

**Collaborative Specialization Courses**

**Addiction Studies**

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PAS3700H</td>
<td>Multidisciplinary Aspects of Addictions</td>
</tr>
<tr>
<td>PAS3701H</td>
<td>Advanced Research Issues in Addictions</td>
</tr>
</tbody>
</table>

**Bioethics**

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHL3020H</td>
<td>Ethics and Artificial Intelligence for Health</td>
</tr>
</tbody>
</table>

**Community Development**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCS1000H</td>
<td>Community Development</td>
</tr>
</tbody>
</table>
Rehabilitation Sciences

Rehabilitation Sciences: Introduction

Faculty Affiliation

Medicine

Degree Programs

Rehabilitation Science

MSc and PhD

- Fields:
  - Movement Science;
  - Occupational Science;
  - Practice Science (admissions have been administratively suspended);
  - Rehabilitation Health Services Studies;
  - Rehabilitation Technology Sciences;
  - Social and Cognitive Rehabilitation Sciences;
  - Speech-Language Pathology.

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Aging, Palliative and Supportive Care Across the Life Course**
  - Rehabilitation Science, MSc, PhD
  - Speech-Language Pathology, MSc, PhD
- **Bioethics**
  - Rehabilitation Science, MSc, PhD
- **Biomedical Engineering**
  - Rehabilitation Science, MSc, PhD
- **Cardiovascular Sciences**
  - Rehabilitation Science, MSc, PhD
- **Global Health (U of T Global Scholar)**
  - Rehabilitation Science, MSc, PhD
- **Health Services and Policy Research**
  - Rehabilitation Science, MSc
- **Musculoskeletal Sciences**
  - Rehabilitation Science, MSc, PhD
- **Neuroscience**
  - Rehabilitation Science, MSc, PhD
  - Speech-Language Pathology, MSc, PhD
- **Resuscitation Sciences** (admissions have been administratively suspended)
  - Rehabilitation Science, MSc, PhD
- **Robotics**
  - Rehabilitation Science, MSc, PhD
- **Women's Health**
  - Rehabilitation Science, MSc, PhD
- **Workplace Learning and Social Change**
  - Rehabilitation Science, MSc, PhD

Overview

Rehabilitation sciences is a multidisciplinary, integrated science dedicated to the study of human function and participation and its relationship to health and well-being. Using basic and applied methods, the science is focused on phenomena at the level of the cell, muscle/brain, person, family, community, or society to develop and evaluate theories, models, processes, measures, interventions, and policies to prevent, reverse, or minimize impairments, enable activity, and facilitate participation.

The academic activities of students in the Rehabilitation Sciences Institute (RSI) cover the full breadth of rehabilitation sciences with over 100 RSI faculty who are distributed throughout the University of Toronto, including teaching hospitals and research institutes.

Contact and Address

Web: [www.rsi.utoronto.ca](http://www.rsi.utoronto.ca)
Email: rsi.admin@utoronto.ca
Telephone: (416) 946-8582
Fax: (416) 946-8762

Rehabilitation Sciences Institute
University of Toronto
Rehabilitation Sciences Building
Room 160, 500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Rehabilitation Science: Graduate Faculty

Full Members

Agur, Anne - BSc, MSc, PhD
Astell, Arlene - BSc, PhD
Bayley, Mark - MD
Biddiss, Elaine Alisa - MSc, PhD
Black, Sandra - BSc, MD
Bressmann, Tim - MPH, PhD
Brooks, Dina - BSc(PT), MSc, PhD
Cameron, Jill - BSc, MS, PhD
Chau, Tom - PhD
Chen, Joyce - BSc(PT), BPHE, PhD, ScD
Colantonio, Angela - BA, BSc(OT), MHSc, PhD (Director)
Colella, Tracey J.F. - MSc, PhD
Colquhoun, Heather - PhD
De Nil, Luc - MSc, PhD
Dutta, Tilk - MEng
Fehlings, Darcy - MD
Fernie, Geoffrey - BSc, PhD
Forhan, Mary - BSc(OT), MHSc, PhD
Gibson, Barbara - MSc, BMR(PT), PhD
Green, Robin - PhD
Guilcher, Sara - BSc, MSc, MSc(PT), PhD
Hamdani, Yani - MA, PhD
Iaboni, Andrea - BSc, MD, PhD
Jaglai, Susan - BSc, MSc, PhD
King, Gillian - BA, MA, PhD
Lindsay, Sally - BA, MA, PhD
Mansfield, Avril - BSc(PT), MSc(PT), PhD
Martino, Rosemary - BS, MA, MSc, PhD
Mathur, Sunita - BSc, MSc, PhD
McGilton, Kathy - BScN, MN, PhD
McIlroy, William - BSc, PhD
Mihailidis, Alex - BASc, MASc, PhD
Musselman, Kristin - MSc(PT), PhD
Mustard, Cameron - AB, ScD
Nalder, Emily - BOTh, PhD
Ng, Stella - BA, MA, PhD
Rehabilitation Sciences: Rehabilitation Science MSc

Master of Science

Program Description

The MSc program is designed for graduate students who ultimately want research-related careers in health science disciplines. It can also serve as a stepping stone on the pathway to advanced research training for students planning to pursue a PhD in Rehabilitation Science or related fields.

The program is offered in the following fields: 1) Movement Science; 2) Occupational Science; 3) Practice Science; 4) Rehabilitation Health Services Studies; 5) Rehabilitation Technology Sciences; 6) Social and Cognitive Rehabilitation Sciences; and 7) Speech-Language Pathology.

The MSc is mainly taken on a full-time basis. A part-time option is available in exceptional situations and applicants interested in the part-time option should contact the program to discuss this option. Part-time applicants should be aware that it is the student's responsibility to modify their work schedule to accommodate required coursework since course times are not flexible.

Fields:
1) Movement Science; 2) Occupational Science; 3) Rehabilitation Health Services Studies; 4) Rehabilitation Technology Sciences; 5) Social and Cognitive Rehabilitation Sciences; 6) Speech-Language Pathology

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rehabilitation Sciences Institute's additional admission requirements stated below.

- Applicants must have graduated with a minimum B+ average in senior-level courses in the final two years of a four-year degree program from a recognized university, with a strong undergraduate science background including a course in research design and/or statistics. The four-year degree may be in Occupational Therapy, Physical Therapy, Speech-Language Pathology, or a related discipline. Related disciplines include basic sciences, engineering, kinesiology, nursing, psychology, social work, sociology, and physical and health education.

- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate proficiency in the English language through the successful completion of one of the following tests:
Program Requirements

- **Coursework.** Students must successfully complete a total of 2.0 full-course equivalents (FCEs) as follows:
  - REH1100H Introduction to Rehabilitation Research (0.5 FCE).
  - REH2001H RSI MSc Seminar — Foundations of Professional Development (0.5 FCE; Credit/No Credit). Students are expected to attend for one year.
  - 0.5 FCE in research methods or statistics.
  - 0.5 FCE in an area related to the student's thesis.
- Submission of a thesis and completion of an oral examination of the thesis.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
15 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Course that may continue over a program. Credit is given when the course is completed.

Field: Practice Science

Effective January 2021, admissions to the field in Practice Science have been administratively suspended.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rehabilitation Sciences Institute's additional admission requirements stated below.
- Applicants must have graduated with a minimum B+ average in senior-level courses in the final two years of a four-year degree program from a recognized university, with a strong undergraduate science background including a course in research design and/or statistics. The four-year degree may be in Occupational Therapy, Physical Therapy, Speech-Language Pathology, or a related discipline. Related disciplines include basic sciences, engineering, kinesiology, nursing, psychology, social work, sociology, and physical and health education.
- Applicants must identify a faculty member who has agreed to serve as research supervisor. The research supervisor is expected to examine a completed thesis and/or manuscripts and university transcripts.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate proficiency in the English language through the successful completion of one of the following tests:
  - Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE) with the following minimum scores:
    - paper-based TOEFL: 600 and 5 on the TWE
    - Internet-based TOEFL (IBT): 100/120 and 22/30 on the writing and speaking sections.
  - International English Language Testing System (IELTS): minimum score of 7.5.
  - U of T School of Continuing Studies academic preparation: see General Regulations, 4.3 English-Language Proficiency.

Program Requirements

- Coursework. Students must successfully complete a total of 3.5 full-course equivalents (FCEs) as follows:
  - REH1100H Theory and Research in Rehabilitation Science (0.5 FCE).
  - REH2001Y0 Rehabilitation Presentations and Proceedings (1.0 FCE; Credit/No Credit). Students are expected to attend for one year.
  - 0.5 graduate FCE in research methods.
  - REH3301H Knowledge Translation in Rehabilitation: Foundational Knowledge and Innovative Applications (0.5 FCE).
  - REH3302H Determinants of Rehabilitation Practice (0.5 FCE).
  - REH3303H Rehabilitation Clinical Practicum (0.5 FCE).
  - Students may be required to take extra courses in addition to the degree requirements listed above.
- Submission of a thesis and completion of an oral examination of the thesis.
- Minimum of 12 months of full-time study. Students should be aware that the completion of the thesis may take longer.
- The part-time option is not available in the Practice Science field.
- Reclassification (transfer). MSc students who demonstrate outstanding potential for advanced research in the discipline may be recommended by their supervisory committee for a reclassification examination which, when passed, allows them to transfer into the PhD program. The examination is normally undertaken following the completion of at least one session and within 18 months of registration in the MSc program.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit

3 years full-time
Course that may continue over a program. Credit is given when the course is completed.

Rehabilitation Sciences: Rehab Sci PhD;
Fields: 1) Movement Science; 2) Occupational Science; 3) Rehabilitation Health Services Studies; 4) Rehabilitation Technology Sciences; 5) Social and Cognitive Rehabilitation Sciences; 6) Speech-Language Pathology

Doctor of Philosophy

Program Description

The PhD program will prepare candidates to have a career as an independent scientist; that is, graduates will feed the demand for rehabilitation scientists in government, industry, or academia in Canada and the global market. Graduates will be expected to acquire autonomy in conducting research and developing an independent research program. The program is designed to provide a broad knowledge of rehabilitation science research as well as advanced research skills and methodologies including acquisition of funding, formulation of research questions, discovery of new knowledge, data collection, analysis and interpretation, scholarly presentation, and publication and translation of knowledge for consumption by appropriate stakeholders.

The program is offered in the following fields: 1) Movement Science; 2) Occupational Science; 3) Practice Science; 4) Rehabilitation Health Services Studies; 5) Rehabilitation Technology Sciences; 6) Social and Cognitive Rehabilitation Sciences; and 7) Speech-Language Pathology.

Applicants may enter the PhD program via one of three routes: 1) following completion of an appropriate master’s degree; 2) transfer from the University of Toronto MSc program; or 3) direct entry following completion of a BSc degree.

Fields:
1) Movement Science; 2) Occupational Science; 3) Rehabilitation Health Services Studies; 4) Rehabilitation Technology Sciences; 5) Social and Cognitive Rehabilitation Sciences; 6) Speech-Language Pathology

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rehabilitation Sciences Institute's additional admission requirements stated below.
- Applicants must have graduated with a minimum A– from a relevant thesis-based master’s program, such as Occupational Therapy, Physical Therapy, Rehabilitation Sciences, and Speech-Language Pathology.
- Applicants must submit the following along with their application: a letter of intent, two confidential reference letters that indicate the applicant’s preparation and competence to conduct research, and curriculum vitae.
- Applicants may be counselled prior to admission and provided with materials regarding potential PhD supervisors. Applicants must identify a faculty member who has agreed to serve as research supervisor. The research supervisor is expected to examine a completed thesis and/or manuscripts and university transcripts.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate proficiency in the English language through the successful completion of one of the following tests:
  - Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE) with the following minimum scores:
    - paper-based TOEFL: 600 and 5 on the TWE
    - Internet-based TOEFL (IBT): 100/120 and 22/30 on the writing and speaking sections.
  - International English Language Testing System (IELTS): minimum score of 7.5.
  - U of T School of Continuing Studies academic preparation: see General Regulations, 4.3 English-Language Proficiency.

Program Requirements

- Coursework. Students must successfully complete a minimum of 1.5 full-course equivalents (FCEs) as follows:
  - REH3001H RSI PhD Seminar — Foundations of Professional Development (0.5 FCE; Credit/No Credit). Attendance is expected during Year 1 of the program.
  - 0.5 FCE in advanced research methods or statistics.
  - 0.5 FCE in an area related to the student's thesis.
- A candidacy examination, with written and oral components, to be taken in the first 18 months of the program.
- Completion and defence of a thesis.
- Students are encouraged to participate in student and faculty research seminars in addition to their regular course requirements.
- Residence. Students are expected to be on campus and participating full-time until all program requirements are completed.

Program Length

4 years

Time Limit

6 years
PhD Program (Transfer)

Transfer Requirements

Transfer applicants must:

- Be enrolled in the MSc program in Rehabilitation Science. Excellent students with high academic standing (normally a minimum A– average in MSc courses) who have clearly demonstrated the ability to do research at the doctoral level may be considered for transfer to the PhD program. Recommendation of the advisory committee is required.
- Successfully complete a recategorization transfer exam within 18 months of starting the MSc program.
- Successfully complete REH1100H Introduction to Rehabilitation Research
- Successfully complete a research methods or statistics course at the master's level.
- Be concurrently enrolled in REH2001H RSI MSc — Foundations of Professional Development (Credit/No Credit).

Program Requirements

- **Coursework.** Students must successfully complete a minimum of 3.0 full-course equivalents (FCEs) as follows:
  - REH1100H Introduction to Rehabilitation Research (0.5 FCE).
  - REH3001H RSI PhD Seminar — Foundations of Professional Development (0.5 FCE; Credit/No Credit).
  - 0.5 FCE in research methods or statistics.
  - 0.5 FCE in advanced research methods or statistics.
  - 1.0 FCE in an area related to the student’s thesis.
- A **transfer examination**, with written and oral components, to be taken in the first 18 months of the program.
- Completion and defence of a **thesis**.
- Students are encouraged to participate in student and faculty **research seminars** in addition to their regular course requirements.
- **Residence.** Students are expected to be on campus and participating full-time until all program requirements are completed.

Program Length

5 years

Time Limit

7 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rehabilitation Sciences Institute's additional admission requirements stated below.

Program Requirements

- **Coursework.** A minimum of 3.0 full-course equivalents (FCEs) as follows:
  - REH1100H Introduction to Rehabilitation Research (0.5 FCE).
  - REH3001H RSI PhD Seminar — Foundations of Professional Development (0.5 FCE; Credit/No Credit).
  - Attendance is expected during Year 1 of the program.
  - 0.5 FCE in research methods or statistics.
  - 0.5 FCE in advanced research methods or statistics.
  - 1.0 FCE in an area related to the student's thesis.
- A **candidacy examination**, with written and oral components, to be taken in the first 2.5 years of the program.
- Completion and defence of a **thesis**.
- Students are encouraged to participate in student and faculty **research seminars** in addition to their regular course requirements.
- **Residence.** Students are expected to be on campus and participating full-time until all program requirements are completed.

Program Length

5 years
Doctor of Philosophy

Program Description

The PhD program will prepare candidates for a career in scientific research; that is, graduates will feed the demand for rehabilitation scientists and academic faculty in Canada and the global market. Graduates will be expected to acquire autonomy in conducting research and developing an independent research program. The program is designed to provide a broad knowledge of rehabilitation science research as well as advanced research skills and methodologies including acquisition of funding, formulation of research questions, discovery of new knowledge, data collection, analysis and interpretation, scholarly presentation, and publication and translation of knowledge for consumption by appropriate stakeholders.

The program is offered in the following fields: 1) Movement Science; 2) Occupational Science; 3) Practice Science; 4) Rehabilitation Health Services Studies; 5) Rehabilitation Technology Sciences; and 6) Social and Cognitive Rehabilitation Sciences.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master’s degree or 2) direct entry following completion of a BSc degree.

Field: Practice Science

Effective January 2021, admissions to the field in Practice Science have been administratively suspended.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rehabilitation Sciences Institute’s additional admission requirements stated below.
- Applicants must have graduated with a minimum A– from a relevant thesis-based master’s program, such as Occupational Therapy, Physical Therapy, Rehabilitation Sciences, and Speech-Language Pathology.
- Applicants must submit the following along with their application: a letter of intent, two confidential reference letters that indicate the applicant’s preparation and competence to conduct research, and curriculum vitae.
- Applicants may be counselled prior to admission and provided with materials regarding potential PhD supervisors. Applicants must identify a faculty member who has agreed to serve as research supervisor. The research supervisor is expected to examine a completed thesis and/or manuscripts and university transcripts.
- Well-qualified students with excellent research potential holding a BSc degree may be considered for direct admission to the PhD program. These applicants must:
  - Have a minimum A+/A average (GPA 4.0) in an undergraduate program from a recognized university;
  - Have previous relevant research experience, outstanding references, and a personal recommendation from a potential supervisor.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate proficiency in the English language through the successful completion of one of the following tests:
  - Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE) with the following minimum scores:
    - paper-based TOEFL: 600 and 5 on the TWE
    - Internet-based TOEFL (IBT): 100/120 and 22/30 on the writing and speaking sections.
  - International English Language Testing System (IELTS): minimum score of 7.5.
  - U of T School of Continuing Studies academic preparation: see General Regulations, 4.3 English-Language Proficiency.

Program Requirements

- Coursework. A minimum of 3.5 full-course equivalents (FCEs) as follows:
  - REH3100H Advanced Rehabilitation Research Issues or equivalent (0.5 FCE) if an equivalent was not taken at the master's level.
  - REH3001Y0 Advanced Rehabilitation Presentation and Proceedings (1.0 FCE; Credit/No Credit). Attendance is expected during the first two years of the program. Students remain enrolled and are encouraged to attend until completion of the degree.
  - REH3301H Knowledge Translation in Rehabilitation: Foundational Knowledge and Innovative Applications (0.5 FCE).
  - REH3302H Determinants of Rehabilitation Practice (0.5 FCE).
  - REH3303H Rehabilitation Clinical Practicum (0.5 FCE).
  - An advanced research methods course (0.5 FCE).
  - Students may be required to take extra courses in addition to the degree requirements listed above.
- A comprehensive examination, with written and oral components, to be taken in the first 18 months of the program.
- Completion and defence of a thesis.
- Students are encouraged to participate in student and faculty research seminars in addition to their regular course requirements.
- Residence. Students are expected to be on campus and participating full-time until all program requirements are completed.

Program Length

4 years
Time Limit

6 years

Course that may continue over a program. Credit is given when the course is completed.

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Rehabilitation Sciences Institute's additional admission requirements stated below.
- Well-qualified students with excellent research potential holding a BSc degree may be considered for direct admission to the PhD program. These applicants must:
  - Have a minimum A+/A average (GPA 4.0) in an undergraduate program from a recognized university;
  - Have previous relevant research experience, outstanding references, and a personal recommendation from a potential supervisor.
- Applicants must submit the following along with their application: a letter of intent, two confidential reference letters that indicate the applicant’s preparation and competence to conduct research, and curriculum vitae.
- Applicants may be counselled prior to admission and provided with materials regarding potential PhD supervisors. Applicants must identify a faculty member who has agreed to serve as research supervisor. The research supervisor is expected to examine a completed thesis and/or manuscripts and university transcripts.
- Applicants who were educated outside Canada, whose primary language is not English, and who graduated from a university where the language of instruction and examination was not English, must demonstrate proficiency in the English language through the successful completion of one of the following tests:
  - **Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE)** with the following minimum scores:
    - paper-based TOEFL: 600 and 5 on the TWE
    - Internet-based TOEFL (IBT): 100/120 and 22/30 on the writing and speaking sections.
  - **International English Language Testing System (IELTS):** minimum score of 7.5.
  - **Certificate of Proficiency in English (COPE):** see General Regulations, 4.3 English-Language Proficiency.
  - **U of T School of Continuing Studies academic preparation:** see General Regulations, 4.3 English-Language Proficiency.

Program Requirements

- **Coursework.** A minimum of 5.0 full-course equivalents (FCEs) as follows:
  - REH3100H Advanced Rehabilitation Research Issues or equivalent (0.5 FCE) if an equivalent was not taken at the master's level.
  - REH3001Y Advanced Rehabilitation Presentation and Proceedings (1.0 FCE; Credit/No Credit). Attendance is expected during the first two years of the program.

Students remain enrolled and are encouraged to attend until completion of the degree.
- REH3301H Knowledge Translation in Rehabilitation: Foundational Knowledge and Innovative Applications (0.5 FCE).
- REH3302HDeterminants of Rehabilitation Practice (0.5 FCE).
- REH3303HRehabilitation Clinical Practicum (0.5 FCE).
- REH1100H Theory and Research in Rehabilitation Science (0.5 FCE).
- REH1120H Research Methods for Rehabilitation Science (0.5 FCE).
- REH1130H Theory and Research in Occupational Science or REH1140H Theory and Research in Physical Therapy (0.5 FCE).
- An advanced research methods course (0.5 FCE).
- Students may be required to take extra courses in addition to the degree requirements listed above.
- A comprehensive examination, with written and oral components, to be taken in the first 2.5 years of the program.
- Completion and defence of a thesis.
- Students are encouraged to participate in student and faculty research seminars in addition to their regular course requirements.
- Residence. Students are expected to be on campus and participating full-time until all program requirements are completed.

Program Length

5 years

Time Limit

7 years

Course that may continue over a program. Credit is given when the course is completed.

Rehabilitation Sciences: Rehabilitation Science MSc, PhD Courses

Since not all courses are offered each academic year, the department should be consulted each session as to course offerings.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>REH1100H</td>
<td>Introduction to Rehabilitation Research</td>
</tr>
<tr>
<td>REH1120H</td>
<td>Research Methods for Rehabilitation Science</td>
</tr>
<tr>
<td>REH1510H</td>
<td>Disordered and Restorative Motor Control</td>
</tr>
<tr>
<td>REH2000H</td>
<td>Individual Reading and Research Course</td>
</tr>
<tr>
<td>REH2001H</td>
<td>RSI MSc Seminar — Foundations of Professional Development (Credit/No Credit)</td>
</tr>
<tr>
<td>REH3001H</td>
<td>RSI PhD Seminar — Foundations of Professional Development (Credit/No Credit)</td>
</tr>
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<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>REH3140H</td>
<td>Disability, Embodiment, and Voice in the Rehabilitation Science Context</td>
</tr>
<tr>
<td>REH3301H</td>
<td>Knowledge Translation in Rehabilitation: Foundational Knowledge and Innovative Applications</td>
</tr>
<tr>
<td>REH3302H</td>
<td>Determinants of Rehabilitation Practice</td>
</tr>
<tr>
<td>REH3303H</td>
<td>Rehabilitation Clinical Practicum</td>
</tr>
<tr>
<td>REH3400H</td>
<td>Therapeutic Exercise in Rehabilitation: Emerging Trends and Research Approaches</td>
</tr>
<tr>
<td>REH3500H</td>
<td>Gender, Work, and Health</td>
</tr>
<tr>
<td>REH5100H</td>
<td>Introduction to Cognitive Rehabilitation Neuroscience I: Basic Science to Clinical Applications</td>
</tr>
<tr>
<td>REH3600H</td>
<td>Synthesis Toolkit: Approaches and Methodologies</td>
</tr>
<tr>
<td>JRP1000H</td>
<td>Theory and Method for Qualitative Researchers: An Introduction</td>
</tr>
</tbody>
</table>
Religion

Religion: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Religion

MA and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Bioethics**
  - Religion, MA, PhD
- **Book History and Print Culture**
  - Religion, MA, PhD
- **Diaspora and Transnational Studies**
  - Religion, MA, PhD
- **Environmental Studies**
  - Religion, MA, PhD
- **Ethnic, Immigration and Pluralism Studies**
  - Religion, MA, PhD
- **Jewish Studies**
  - Religion, MA, PhD
- **Knowledge Media Design**
  - Religion, MA, PhD
- **Mediterranean Archaeology**
  - Religion, MA, PhD
- **Sexual Diversity Studies**
  - Religion, MA, PhD
- **South Asian Studies**
  - Religion, MA, PhD
- **Women and Gender Studies**
  - Religion, MA, PhD
- **Women's Health**
  - Religion, MA, PhD

Overview

The Department for the Study of Religion offers Master of Arts and Doctor of Philosophy programs in the study of religion and facilitates research and publication on religion. The department consolidates the vast curricular and faculty resources that are distributed throughout the many departments and colleges of the University and enables its students to use any resource in the University which serves the study of religion.

The department conceives the academic study of religion in interdisciplinary terms and embraces humanistic, historical, and social scientific approaches and methods. Programs of study are constructed individually to fit the specific needs and interests of each student.

Contact and Address

Web: [www.religion.utoronto.ca](http://www.religion.utoronto.ca)
Email: religion.grad@utoronto.ca
Telephone: (416) 978-3057
Fax: (416) 978-1610

Department for the Study of Religion
University of Toronto
Room 305, 170 St. George Street
Toronto, Ontario M5R 2M8
Canada

Religion: Graduate Faculty

Full Members

Airhart, Phyllis - BA, MA, PhD
Allen, Andrea - PhD
Bendlin, Andreas - PhD
Bergen, Doris - MA, PhD
Black, Deborah - BA, MA, PhD
Blouin, Katherine - BA, MA, PhD, PhD
Boddy, Janice - BA, MA, PhD
Bohaker, Heidi - BA, BEEd, MA, DPhil
Borrows, John - LLB, LLM, MA, LL.D
Bryant, Joseph - BA, MA, PhD
Chrubasik, Boris - MA, PhD
Clarke, Kamari - BA, MA, MPH, LLM, PhD
Coleman, Simon - BA, PhD
Daswani, Girish - BSc, BSc, MS, PhD
Dhand, Arti - BA, MA, PhD
DiCenso, James - BA, MA, PhD
Emmrich, Christoph - PhD
Emon, Anver - LLB, BA, LLM, MA, PhD, SJD, CRC
Fadel, Mohammad - BA, JD, PhD
Fox, Harry - BSc, BA, MS, MA, PhD
Fraser, Chris - PhD
Garrett, Frances - BA, MA, PhD
Gibbs, Robert - BA, MA, PhD
Goetschel, Willi - PhD
Green, Kenneth - BA, MA, PhD
Hanneder, Jurgen - PhD
Harrak, Amir - MA, LTh, PhD
Harris, Jennifer - BA, MA, PhD
Hewitt, Marsha - BA, MA, PhD
Hill, Susan - PhD
Jain, Kajri - PhD
Junior, Nyasha - MDiv, PhD
Kana'an, Ruba - MPH, MPH, DPhil
Kasturi, Malavika - DPhil
Khan, Abraham - BS, BD, MA, PhD
Kingwell, Mark - BA, MA, MPH, DFA, PhD
Klassen, Pamela - BA, MA, PhD *(Chair and Graduate Chair)*
Kloppenborg, John - BA, MA, PhD
Lambeek, Michael - BA, MA, PhD
Locklin, Reid - AB, MTh, PhD
Marshall, John - BA, MA, PhD
Marshall, Ruth - BA, MA, DPhil
Metso, Sarianna - MA, PhD
Mittermaier, Amira - MA, PhD
Mountaz, Nada - PhD *(Acting Director of Graduate Studies)*
Mullin, Amy - BA, PhD
Napolitano, Valentina - BSc, MPH, PhD
Newman, Judith - PhD
O'Neill, Kevin - BA, MA, PhD
Religion: Religion MA

Master of Arts

Program Description

The MA program may be taken on a full-time or part-time basis. The department's Graduate Studies Handbook, available on the web and from the department, provides details on admissions and programs as well as the research and teaching interests of the faculty.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department for the Study of Religion's additional admission requirements stated below.

- Normally, an appropriate bachelor's degree with specialization in religion or a cognate discipline from a recognized university, broadly equivalent to the University of Toronto's BA Specialist degree in religion, with at least A– standing in the final year. Students without appropriate preparation may be required to take additional work either before admission or during an extended master's program.

Program Requirements

- **Courses.** Students must complete **4.0 full-course equivalents (FCEs)** including:
  - RLG2000Y Major Research Paper (1.0 FCE).
  - RLG1200H MA Method and Theory Workshop (0.5 FCE).
  - One Gateway Seminar (0.5 FCE).
  - One additional Religion course (0.5 FCE).
  - In some cases, students may be required to take additional courses, some of which may be at the undergraduate level. Students may be required to take more than 4.0 FCEs if their preparation is considered deficient in a subject required for their program.
  - Satisfactory performance requires the completion of all coursework taken for graduate credit with an average grade of at least A–.

- **Language(s).** Reading knowledge of at least one language, in addition to English, selected from languages of modern scholarship and/or necessary source languages, as approved by the Director of Graduate Studies.

Program Length

3 sessions full-time (typical registration sequence: F/W/S); 6 to 8 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Religion: Religion PhD

Doctor of Philosophy

Program Description

From the point of admission onward, doctoral student programs must be matched with the expertise of faculty who help supervise the student's work. The department's Graduate Studies Handbook, available on the web and from the department, provides details on admissions and programs as well as the research and teaching interests of the faculty. The PhD program is taken on a full-time basis.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department for the Study of Religion's additional admission requirements stated below.
• Normally, completion of all requirements of the department's MA program, or a comparable program at another university, with an average of at least A— in coursework and with no individual course falling below B.

Program Requirements

• **Courses.** Students must complete a minimum of 4.0 full-course equivalents (FCEs), including the following:
  o RLG1000Y Method and Theory in the Study of Religion (1.0 FCE).
  o One Gateway Seminar (0.5 FCE).
  o Two additional Religion courses (1.0 FCE).
  o Students may be required to take more than 4.0 FCEs if their preparation is considered deficient in a subject required for their program.
  o Satisfactory performance requires the completion of all coursework taken for graduate credit with an average grade of at least A—.

• **Languages.** Reading knowledge of at least two languages in addition to English, selected from languages of scholarship and necessary source languages, as approved by the Director of Graduate Studies. Classical and modern forms of the same language are not permitted. The language requirements must be fulfilled before writing the general examinations. Students who complete a language requirement in the department's MA program with a grade of B+ or higher are exempt from having to repeat this language in the PhD program.

• **Professionalization seminar.** Doctoral students must complete SRD4444Y Doctoral Seminar Series — Compulsory Attendance (Credit/No Credit, 0.0 FCE). This seminar consists of a series of workshops which must be completed to fulfill the requirement.

• **General examinations.** Upon completion of coursework and language requirements, the student's supervisory committee will set General Examinations to assess the student's readiness for thesis research. There are three components in the General Examinations:
  o A four-hour written examination will cover the student's broad area or subfield;
  o A four-hour written examination will cover material pertinent to the student's dissertation topic; and
  o A two-hour oral examination on all materials assigned for the General Examinations.

• A student who fails any portion of the General Examinations may be re-examined once, no later than nine months after the date of the first examination. The General Examinations must be completed before the end of the third year of doctoral study.

• **Thesis proposal.** Within three months of successful completion of the General Examinations, the student must submit a thesis proposal for approval by the student's supervisory committee.

• **Thesis.** Upon approval of the thesis proposal by the student's supervisory committee, the candidate proceeds to research and write a doctoral thesis which must be defended successfully at a Doctoral Final Oral Examination.

• **Colloquium presentation.** Once general examinations are completed, PhD candidates are required to present at least once in the Department for the Study of Religion's colloquium before undertaking their Doctoral Final Oral Examination.

• **Doctoral Final Oral Examination.** The supervisory committee must approve the completed thesis before it is submitted for examination.

• **Residence.** Students are required to spend at least two Fall and Winter sessions on campus in full-time study, normally in Years 1 and 2.

Program Length

4 years (some students may take longer)

Time Limit

6 years

Religion: Religion MA, PhD Courses

Not all courses are offered every year. Please consult the department's website, which lists the courses the department will offer this year as well as those cross-listed from other departments.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RLG1000Y</td>
<td>Method and Theory in the Study of Religion</td>
</tr>
<tr>
<td>RLG1002H</td>
<td>Philosophy of Religion Gateway Seminar</td>
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<tr>
<td>RLG1003H</td>
<td>Islamic Studies Gateway Seminar</td>
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<tr>
<td>RLG1004H</td>
<td>Religions of Mediterranean Antiquity Gateway Seminar</td>
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<tr>
<td>RLG1005H</td>
<td>Jewish Studies Gateway Seminar</td>
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<tr>
<td>RLG1006H</td>
<td>South Asian Religions Gateway Seminar</td>
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<tr>
<td>RLG1200H</td>
<td>The MA Method and Theory Workshop</td>
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<td>RLG1501H</td>
<td>Directed Reading</td>
</tr>
<tr>
<td>RLG1502H</td>
<td>Directed Reading</td>
</tr>
<tr>
<td>RLG2000Y</td>
<td>Major Research Paper</td>
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<tr>
<td>RLG2005H</td>
<td>Religion and Posthumanism</td>
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<td>RLG2015H</td>
<td>Comparing Religion</td>
</tr>
<tr>
<td>RLG2017H</td>
<td>Religion, Secularism, and the Public Sphere</td>
</tr>
<tr>
<td>RLG2020H</td>
<td>Early Christianity, Ancient Judaism, Ancient &quot;Magic&quot;</td>
</tr>
<tr>
<td>RLG2021H</td>
<td>Mystical Poetics and the Study of Religious Aesthetics</td>
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<tr>
<td>RLG2022H</td>
<td>Religion, Mourning, and Trauma</td>
</tr>
<tr>
<td>RLG2025H</td>
<td>Fragments of Redemption: Sigmund Freud and Theodor W. Adorno</td>
</tr>
<tr>
<td>RLG2040H</td>
<td>Commentary: Theory and Practice</td>
</tr>
<tr>
<td>RLG2045H</td>
<td>Modern Buddhist Fiction</td>
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<tr>
<td>RLG2060H</td>
<td>Religion and Philosophy in the European Enlightenment</td>
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<tr>
<td>RLG2061H</td>
<td>Why Philosophy Matters to Religious Studies</td>
</tr>
<tr>
<td>RLG2062H</td>
<td>Modern Hermeneutics and Religion</td>
</tr>
<tr>
<td>RLG2064H</td>
<td>Constructing Religion</td>
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<tr>
<td>RLG2065H</td>
<td>Philosophical Texts in Religion</td>
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<tr>
<td>RLG2067H</td>
<td>Philosophical Topics in the Study of Religion</td>
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<tr>
<td>RLG2072H</td>
<td>Kant’s Theory of Religion</td>
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<tr>
<td>RLG2081H</td>
<td>Trauma, Healing, and Transformation</td>
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<tr>
<td>RLG2086H</td>
<td>Fieldwork in Religious Studies</td>
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<tr>
<td>RLG3010H</td>
<td>Feminist and Womanist Biblical Interpretation</td>
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<td>Pseudepigraphy in Ancient Mediterranean Religion</td>
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<td>The Politics of Bible Translation</td>
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<td>Martyrdom in Early Christianity</td>
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<tr>
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<td>Christianity in the Ancient Near East</td>
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<td>RLG3217H</td>
<td>Social Networks and Elective Cults in Antiquity</td>
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<td>Christian Asceticism in Late Antiquity</td>
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<td>The Synoptic Problem</td>
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<td>RLG3249H</td>
<td>Studies in the Synoptic Gospels</td>
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<td>RLG3250H</td>
<td>Heresy and Deviance in Early Christianity</td>
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<tr>
<td>RLG3252H</td>
<td>The Letter of James and Early Christian Wisdom</td>
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<tr>
<td>RLG3280H</td>
<td>Christianities of South Asia</td>
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<tr>
<td>RLG3290H</td>
<td>Words and Worship in Christian Cultures</td>
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<tr>
<td>RLG3401H</td>
<td>Reading Buddhist Texts I</td>
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<tr>
<td>RLG3402H</td>
<td>Reading Buddhist Texts II</td>
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<tr>
<td>RLG3413H</td>
<td>Burmese Religions</td>
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<tr>
<td>RLG3419H</td>
<td>Teaching Buddhism</td>
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<td>RLG3454H</td>
<td>Readings in Tibetan Buddhism I</td>
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<td>RLG3457H</td>
<td>Buddhism and Healing</td>
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<td>RLG3460H</td>
<td>Sanskrit Readings</td>
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<td>RLG3461H</td>
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<td>RLG3501H</td>
<td>Special Topics in Islamic Studies</td>
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<td>RLG3504H</td>
<td>Biblical Narratives in the Qur’an</td>
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<td>RLG3516H</td>
<td>Islamic Law and Society</td>
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<td>Shi’i Studies: The State of the Field</td>
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<td>Foundations in Shi’i Studies</td>
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<td>RLG3519H</td>
<td>Islamic Intellectual Traditions</td>
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<tr>
<td>RLG3523H</td>
<td>Islamic Origins: Sources, Debates, and Prospects</td>
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<td>RLG3527H</td>
<td>The Anthropology of Islam</td>
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<td>RLG3528H</td>
<td>Tools of the Craft: Research Fluency in Islamic Studies</td>
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<tr>
<td>RLG3544H</td>
<td>Muslim Material Cultures</td>
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<td>RLG3555H</td>
<td>The Prophetic Family in Islamic Tradition</td>
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<tr>
<td>RLG3601H</td>
<td>Philo: The First Jewish Philosopher</td>
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<tr>
<td>RLG3610H</td>
<td>Wisdom in Second Temple Judaism</td>
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<tr>
<td>RLG3621H</td>
<td>Modern Jewish Thought</td>
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<tr>
<td>RLG3622H</td>
<td>Maimonides and His Modern Interpreters</td>
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<tr>
<td>RLG3623H</td>
<td>The Thought of Leo Strauss</td>
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<td>RLG3634H</td>
<td>Worship and Scripture at Qumran</td>
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<tr>
<td>RLG3645H</td>
<td>The Jewish Legal Tradition</td>
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<td>RLG3647H</td>
<td>Early Rabbinic Judaism</td>
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<td>RLG3701H</td>
<td>Vaishnavism</td>
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<td>RLG3702H</td>
<td>Debates in Classical South Asian Religion and History</td>
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<td>RLG3704H</td>
<td>Readings in Sanskrit Literature</td>
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<td>RLG3705H</td>
<td>Becoming Hindu: Ritual Life in Hindu Traditions</td>
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<td>RLG3710H</td>
<td>Newar Religion</td>
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<td>RLG3717H</td>
<td>Renunciation and Erotica in Sanskrit Poetry</td>
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<td>RLG3718H</td>
<td>Sikhs in Early Modern India: Texts and Encounters</td>
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<td>RLG3722H</td>
<td>Approaching the Literary in South Asian Religions</td>
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<td>RLG3744H</td>
<td>Hindu Epics</td>
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<td>RLG3763H</td>
<td>Readings in Sanskrit Philosophy</td>
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<td>RLG3771H</td>
<td>After the Śaiva Age: Regional Śaivism in the Second Millenium</td>
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<td>RLG3789H</td>
<td>Burmese Buddhist Literature</td>
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<td>RLG3823H</td>
<td>Buddhism and Indigeneity</td>
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<td>RLG3931H</td>
<td>Topics in North American Religions</td>
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<td>RLG4001H</td>
<td>Directed Reading: TST Seminar</td>
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<td>RLG4004H</td>
<td>Colloquium Presentation</td>
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<tr>
<td>SRD4444Y</td>
<td>Doctoral Seminar Series — Compulsory Attendance (Credit/No Credit)</td>
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Joint Courses

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<th>Course Title</th>
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<tr>
<td>JAR1001H</td>
<td>Anthropology of Religion Gateway Seminar</td>
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<tr>
<td>JPR2051H</td>
<td>Fanaticism: A Political History</td>
</tr>
<tr>
<td>JPR2058H</td>
<td>Post-secular Political Thought: Religion, Radicalism, and the Limits of Liberalism</td>
</tr>
</tbody>
</table>

Other Departments

Other departments and collaborative specializations (see programs listed at the beginning of this entry) offer courses that may contribute to graduate programs in the study of religion. Visit the department's website for a current listing of such course offerings from:

- Anthropology
- Art History
- East Asian Studies
- English
- Ethnic, Immigration and Pluralism Studies
- Germanic Languages and Literatures
- History
- History and Philosophy of Science and Technology
- Italian Studies
- Law
- Medieval Studies
- Near and Middle Eastern Civilizations
- Philosophy
- Political Science
- Sociology
- Toronto School of Theology
Slavic Languages and Literatures

Slavic Languages and Literatures: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Slavic Languages and Literatures

MA and PhD

- Fields:
  - Slavic Linguistics (admissions have been administratively suspended for the MA and PhD);
  - Slavic Literatures (admissions have been administratively suspended for the MA One-Year Coursework-Plus-Research-Paper Option and the PhD)

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Diaspora and Transnational Studies
  - Slavic Languages and Literatures, MA, PhD
- Jewish Studies
  - Slavic Languages and Literatures, MA, PhD
- Sexual Diversity Studies
  - Slavic Languages and Literatures, MA, PhD

Overview

The Graduate Department of Slavic Languages and Literatures offers instruction leading to two degrees — Master of Arts and Doctor of Philosophy — in one of the broadest ranges of Slavic languages and literatures available in a North American university. Courses are offered in the following areas: Croatian and Serbian Languages and Literatures, Czech and Slovak Languages and Literatures, Polish Language and Literature, Russian Language and Literature, Slavic Linguistics, and Ukrainian Language and Literature.

The department's literature programs are especially strong in nineteenth and twentieth century literary and cultural history, modernism, avant-garde and contemporary movements, literary theory, drama, cinema, and Slavic-Jewish cultural relations.

The department's linguistics unit has particular strengths in language acquisition and pedagogy, and socio-linguistics. Students are advised to consult the list of faculty members and the description of their particular areas of expertise for more details.

Over the last decade, curricula in all the languages, literatures and cultures taught in the department have been rewritten to mirror the dramatic social, cultural and political changes in Central, Eastern and Southern Europe. The department has developed new areas of research and expertise. Due to extensive internal cooperation and interdisciplinary focus, new common ground among disciplines has been found; the study of the interrelations of these cultures is promoted.

Contact and Address

Web: slavic.artsci.utoronto.ca
Email: slavic@utoronto.ca
Telephone: (416) 946-0011
Fax: (416) 978-8226

Department of Slavic Languages and Literatures
University of Toronto
Room 431, 121 St. Joseph Street
Alumni Hall, St. Michael's College
Toronto, Ontario M5S 1J4
Canada

Slavic Languages and Literatures: Graduate Faculty

Full Members

Holland, Kate - MA, PhD
Koznarsky, Taras - MA, PhD
Livak, Leonid - BA, AM, PhD (Chair and Graduate Chair)
Mandusic, Zdenko - BA, MA, PhD
Obradovic, Dragana - MA, PhD (Associate Chair, Graduate)
Orwin, Donna - PhD
Smolyarova, Tatiana - BA, MA, PhD, PhD
Tarnawsky, Maxim - BA, PhD
Trojanowska, Tamara - MA, PhD

Members Emeriti

Bedford, Charles - MA, PhD
Kramer, Christina - BA, MA, PhD
Lindheim, Ralph - BA, MA
Ponomareff, Constantin - BA, MA, PhD
Thomson, Roger - BA, MA, DPhil

Associate Members

Mikhailova, Julia - AB, AM, AM, DPhil
Muhonen, Anu - PhD
Petrov, Ana - PhD

Slavic Languages and Literatures: Slavic Languages and Literatures MA

Master of Arts

Program Description
All applicants complete the same application process. The department's admissions committee then determines each applicant's suitability for the one-year MA or two-year MA option, depending on their level of preparation. Students in the one-year MA program have the option to complete the program by coursework or coursework plus research paper.

MA Program (One-Year Coursework Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Slavic Languages and Literatures' additional admission requirements stated below.
- An appropriate bachelor's degree (preferably in a cognate area) with an overall standing equivalent to at least a University of Toronto mid-B in the final year.
- A minimum A– average in all Slavic subjects taken in the final two years is recommended.
- Proficiency in a Slavic language equivalent to at least three full years of language training, and broad familiarity with the literary and cultural history of the applicant's proposed disciplinary area(s) of interest (currently, Czech and Slovak, Polish, Russian, South Slavic, Slavic Linguistics, Ukrainian), as evidenced by undergraduate coursework at the 300 or 400 level, are required.

Program Requirements

- **Coursework.** Students must complete **4.0 full-course equivalents (FCEs)** including:
  - SLA1040H *Methods of Teaching Slavic Languages* (0.5 FCE)
  - Students who provide evidence of satisfactory completion of an equivalent course to SLA1040H may be exempted from this course.
- **Language.** Proficiency in the language of the major field of study must be demonstrated during the first week of the first session in the program. Additional language courses at the undergraduate level may be required. These courses will not count toward the 4.0 FCEs required to complete the program. Successful completion of all coursework in the undergraduate language courses is part of a student's good progress in the MA program.
- **Residence.** Normally, students spend a year in residence when they must be on campus and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

2 sessions (typical registration sequence: F/W)

Time Limit

3 years

MA Program (One-Year Coursework-Plus-Research-Paper Option)

Admissions to this option have been administratively suspended.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Slavic Languages and Literatures' additional admission requirements stated below.
- An appropriate bachelor's degree (preferably in a cognate area) with an overall standing equivalent to at least a University of Toronto mid-B in the final year.
- A minimum A– average in all Slavic subjects taken in the final two years is recommended.
- Proficiency in a Slavic language equivalent to at least three full years of language training, and broad familiarity with the literary and cultural history of the applicant's proposed disciplinary area(s) of interest (currently, Czech and Slovak, Polish, Russian, South Slavic, Slavic Linguistics, Ukrainian), as evidenced by undergraduate coursework at the 300 or 400 level, are required.

Program Requirements

- **Coursework.** Students must complete **3.0 full-course equivalents (FCEs)** including:
  - SLA1040H *Methods of Teaching Slavic Languages* (0.5 FCE).
  - Students who provide evidence of satisfactory completion of an equivalent course to SLA1040H may be exempted from this course.
  - Students who intend to complete the Slavic linguistics field must complete SLA1109H *Studies in Old Church Slavonic* (0.5 FCE).
- **Language.** Proficiency in the language of the major field of study must be demonstrated during the first week of the first session in the program. Additional language courses at the undergraduate level may be required. These courses will not count toward the 3.0 FCEs required to complete the program. Successful completion of all coursework in the undergraduate language courses is part of a student's good progress in the MA program.
- **Research paper** written in English.

Program Length

2 sessions (typical registration sequence: F/W)

Time Limit

3 years
MA Program (Two-Year Coursework Option)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Slavic Languages and Literatures’ additional admission requirements stated below.
- An appropriate bachelor’s degree (preferably in a cognate area) with an overall standing equivalent to at least a University of Toronto mid-B in the final year.
- A minimum A– average in all Slavic subjects taken in the final two years is recommended.
- Intermediate proficiency in a Slavic language, as evidenced by two full years of language training or equivalent, is required.

Program Requirements

- **Coursework:** Students must complete 7.0 full-course equivalents (FCEs) including:
  - SLA1040H *Methods of Teaching Slavic Languages* (0.5 FCE)
  - Students who provide evidence of satisfactory completion of an equivalent course to SLA1040H may be exempted from this course.
  - Students who intend to complete the Slavic linguistics field must complete SLA1109H *Studies in Old Church Slavonic* (0.5 FCE).

- **Language.** Level of proficiency in the language of the major field of study must be established no later than the first week of the first session in the program to determine the required language courses.

- **Residence.** Normally, students spend two years in residence when they must be on campus and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 sessions (typical registration sequence: F/W/F/W)

Time Limit

3 years

**Slavic Languages and Literatures: Slavic Languages and Literatures PhD**

Doctor of Philosophy

Program Description

PhD students may choose to complete a program in one of two fields:

- Slavic Linguistics
- Slavic Literatures.

Field: Slavic Linguistics

Admissions to this field have been administratively suspended.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Slavic Languages and Literatures’ additional admission requirements stated below.
- An appropriate University of Toronto master’s degree with a minimum A– average in graduate courses and demonstrated research competence.

Program Requirements

Students are normally required to:

- Demonstrate proficiency in the language of the major field of study during the session’s first week. Undergraduate language courses may be required. These are not tabulated as part of graduate program course requirements. Successful completion of all coursework in these remedial undergraduate courses is part of a student’s good progress in the PhD program.
- Complete a major field of study and a minor field of study program.
- Complete 9.0 full-course equivalents (FCEs) including:
  - At least 3.0 FCEs in Slavic linguistics.
  - 2.0 FCEs in theoretical linguistics from cognate disciplines (e.g., linguistics, anthropology).
  - 1.0 FCE in the literature of the major field of study language is strongly advised.
  - At least one course (0.5 FCE) in Slavic languages from each of the three groups: West Slavic, East Slavic, and South Slavic by the end of Year 3 (minimum 1.5 FCEs total).
  - Students may be given a course exemption up to 3.0 FCEs for work completed in the MA.
- **Minor field of study** programs should include 2.0 FCEs from any one of:
  - Croatian and Serbian Languages and Literatures.
  - Czech and Slovak Languages and Literatures.
  - Polish Language and Literature.
  - Russian Language and Literature.
  - Slavic Linguistics, and Ukrainian Language and Literature.
  - A cognate discipline, with departmental approval (e.g., cinema studies, comparative literature, drama, history, philosophy).

Maintain a minimum annual average of A– to continue in the PhD program. Poor performance in one session (below a B average) may result in the termination of a student’s PhD eligibility.

Demonstrate a reading knowledge of French or German.

After successful completion of coursework and the French or German language requirement, students must pass written comprehensive examinations in the major field of study and written and oral comprehensive examinations in the special field. The major field of study exam cannot be taken if students have any outstanding coursework.
• By the time of their major field of study exam, students should have chosen their supervisor and the rest of their committee (in consultation with the supervisor).
• Dissertation.
• Residence. In Years 1 and 2, students must take courses and be on campus full-time to participate fully in the PhD program's activities.

Program Length

4 years (many students require 5 years to complete the program)

Time Limit

6 years

Field: Slavic Literatures

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Slavic Languages and Literatures' additional admission requirements stated below.
• An appropriate University of Toronto master's degree with a minimum A– average in graduate courses and demonstrated research competence.

Program Requirements

Students are normally required to:

• Demonstrate proficiency in the language of the major field of study during the session's first week. Undergraduate language courses may be required. These are not tabulated as part of graduate program course requirements. Successful completion of all coursework in these remedial undergraduate courses is part of a student's good progress in the PhD program.
• Complete SLA1010H Slavic Proseminar prior to taking comprehensive examinations.
• Complete a major field of study and a minor field of study program.
• Complete 9.0 full-course equivalents (FCEs) with at least 0.5 FCE in Slavic linguistics. Students may be given a course exemption up to 3.0 FCEs for work completed in the MA.
  o Complete SLA1104H Introduction to Old Church Slavonic (0.5 FCE; Credit/No Credit) if specializing in Russian, Ukrainian, or Bosnian-Croatian-Serbian.
• Minor field of study programs should include 2.0 FCEs from any one of:
  o Croatian and Serbian Languages and Literatures.
  o Czech and Slovak Languages and Literatures.
  o Polish Language and Literature.
  o Russian Language and Literature.
  o Slavic Linguistics, and Ukrainian Language and Literature.
  o A cognate discipline, with departmental approval (e.g., cinema studies, comparative literature, drama, history, philosophy).
• Maintain a minimum annual average of A– to continue in the PhD program. Poor performance in one session (below a B average) may result in the termination of a student's PhD eligibility.
• Acquire a working knowledge of a Slavic language other than their major field of study language and study or complete at least two approved undergraduate courses in a Slavic language that is different than their major field of study language of study by the end of Year 3. A working knowledge is defined as proficiency equivalent to a second-year course. Students must also satisfy departmental requirements for their major field of study language. Students who do not major field of study in Russian most often choose it as their second Slavic language.
• Demonstrate a reading knowledge of French or German.
• After successful completion of coursework and the French or German language requirement, students must pass written comprehensive examinations in the major field of study field and written and oral comprehensive examinations in the special field. The major field of study exam cannot be taken if students have any outstanding coursework.
• By the time of their major field of study field exam, students should have chosen their supervisor and the rest of their committee (in consultation with the supervisor).
• Dissertation.
• Residence. In Years 1 and 2, students must take courses and be on campus full-time to participate fully in the PhD program's activities.

Program Length

4 years (many students require 5 years to complete the program)

Time Limit

6 years

Slavic Languages and Literatures: Slavic Languages and Literatures MA, PhD Courses

Not all courses are offered every year. Students should consult the departmental handbook for current course offerings.

General Slavic

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SLA1010H</td>
<td>Slavic Proseminar</td>
</tr>
<tr>
<td>SLA1039H</td>
<td>Kyiv-Kiev-Kijow: A City and the Text</td>
</tr>
<tr>
<td>SLA1040H</td>
<td>Methods of Teaching Slavic Languages</td>
</tr>
<tr>
<td>SLA1050H</td>
<td>Theatricality and Spectacle in the History of Russian Culture. From Jesters to Meyerhold.</td>
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<tr>
<td>SLA1207H</td>
<td>The Imaginary Jew</td>
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<tr>
<td>SLA1241H</td>
<td>Narrative and History</td>
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</table>

• By the time of their major field of study exam, students should have chosen their supervisor and the rest of their committee (in consultation with the supervisor).
• Dissertation.
• Residence. In Years 1 and 2, students must take courses and be on campus full-time to participate fully in the PhD program's activities.
<table>
<thead>
<tr>
<th>Course Code</th>
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<td>SLA1330H</td>
<td>Literature and Science</td>
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<td>SLA1335H</td>
<td>Race, Empire, Gender in Eastern Europe and Russia</td>
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<tr>
<td>SLA1340H</td>
<td>Desires, Dreamscapes, and the Death Drive: Psychoanalysis and Literature</td>
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<tr>
<td>SLA1405H</td>
<td>Contemporary East European Cinemas</td>
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<td>SLA1409H</td>
<td>Late Ukrainian Modernism (exclusion: SLA1402Y)</td>
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<td>SLA1421H</td>
<td>Women in East European Fiction</td>
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<td>SLA1521H</td>
<td>Post-Modernity and the Mythopoetic Legacy of Mitteleuropa</td>
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<td>SLA2000Y</td>
<td>Reading and Research</td>
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<td>SLA2001H</td>
<td>One Term Reading and Research</td>
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<td>JLV5134H</td>
<td>Theories of the Novel</td>
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<td>JLV5135H</td>
<td>1968: The Year of Revolution and Protest</td>
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<td>JLV5143H</td>
<td>Censorship, Culture, Archive</td>
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</table>

**Russian Literature**

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<td>SLA1202H</td>
<td>Gulag Literature</td>
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<td>SLA1203H</td>
<td>The Self and Other in Russian Prose</td>
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<tr>
<td>SLA1204H</td>
<td>Contemporary Russian Literature</td>
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<tr>
<td>SLA1207H</td>
<td>The Imaginary Jew</td>
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<td>SLA1210H</td>
<td>Studies in Medieval Russian Literature</td>
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<tr>
<td>SLA1211Y</td>
<td>Studies in the Russian Drama: Eighteenth to Twentieth Century</td>
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<td>SLA1215H</td>
<td>Studies in Russian Literature and Criticism in the Eighteenth Century</td>
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<td>SLA1216H</td>
<td>From English to Russian Literature and Back</td>
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<td>SLA1220H</td>
<td>Nineteenth Century Russian Thinkers</td>
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<td>SLA1222Y</td>
<td>Russian Poetry and Poetics</td>
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<td>SLA1223H</td>
<td>Introduction to Russian Poetry and Poetics</td>
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<td>SLA1224H</td>
<td>19th-Century Russian Poetry</td>
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<td>Russian Literature in the Age of Empire</td>
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<td>SLA1226H</td>
<td>Dostoevsky in Literary Theory and Criticism</td>
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<td>Themes in Russian Realism</td>
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<tr>
<td>SLA1229H</td>
<td>Russian Literature Between Tradition and Modernity (exclusion: SLA1225H)</td>
</tr>
<tr>
<td>SLA1231H</td>
<td>Russian Modernism</td>
</tr>
<tr>
<td>SLA1233H</td>
<td>Studies in Modern Russian Poets</td>
</tr>
<tr>
<td>SLA1234H</td>
<td>Dostoevsky</td>
</tr>
<tr>
<td>SLA1238H</td>
<td>Chekhov</td>
</tr>
<tr>
<td>SLA1239H</td>
<td>Vladimir Nabokov</td>
</tr>
<tr>
<td>SLA1240H</td>
<td>Tolstoy</td>
</tr>
<tr>
<td>SLA1410H</td>
<td>Gogol</td>
</tr>
<tr>
<td>SLA1411H</td>
<td>Synthesis of Arts in the Late Russian Empire–Early Soviet Union</td>
</tr>
</tbody>
</table>

**Croatian and Serbian Literatures**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLA1507H</td>
<td>Modern Croatian Bards in Performance</td>
</tr>
<tr>
<td>SLA1517H</td>
<td>Modern Serbian Bards</td>
</tr>
<tr>
<td>SLA1547H</td>
<td>South Slavic Folklore</td>
</tr>
</tbody>
</table>

**Czech and Slovak Literature**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SLA1600Y</td>
<td>Introduction to Czech and Slovak Literatures</td>
</tr>
<tr>
<td>SLA1602Y</td>
<td>Czech Style and Syntax</td>
</tr>
<tr>
<td>SLA1604Y</td>
<td>History of Czech Verbal Art from the Early Stages to Baroque</td>
</tr>
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</table>

**Polish Literature**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SLA1304H</td>
<td>Transgressions: Drama, Theatre, Performance</td>
</tr>
<tr>
<td>SLA1308H</td>
<td>Critical Paradigms in Polish Culture</td>
</tr>
<tr>
<td>SLA1312Y</td>
<td>Modernism and Post-Modernism in Polish Literature</td>
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**Slavic Linguistics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SLA1040H</td>
<td>Methods of Teaching Slavic Languages</td>
</tr>
<tr>
<td>SLA1041Y</td>
<td>Advanced Training in Slavic Languages I</td>
</tr>
<tr>
<td>SLA1042Y</td>
<td>Advanced Training in Slavic Languages II</td>
</tr>
<tr>
<td>SLA1102Y</td>
<td>Advanced Russian Language Skills</td>
</tr>
<tr>
<td>SLA1104H</td>
<td>Introduction to Old Church Slavonic (Credit/No Credit)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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</tr>
<tr>
<td>SLA1109H</td>
<td>Studies in Old Church Slavonic</td>
</tr>
<tr>
<td>SLA1141H</td>
<td>History of the Ukrainian Language</td>
</tr>
<tr>
<td>SLA1142H</td>
<td>Style and Structure of Ukrainian</td>
</tr>
<tr>
<td>SLA1150H</td>
<td>Russian Since the Revolution</td>
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**Russian Language**

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SLA1101Y</td>
<td>History of the Russian Language</td>
</tr>
<tr>
<td>SLA1102Y</td>
<td>Advanced Russian Language Skills</td>
</tr>
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**Ukrainian Literature/Language**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SLA1141H</td>
<td>History of Ukrainian Language</td>
</tr>
<tr>
<td>SLA1142H</td>
<td>Style and Structure of Ukrainian</td>
</tr>
<tr>
<td>SLA1402H</td>
<td>Early Ukrainian Modernism</td>
</tr>
<tr>
<td>SLA1403H</td>
<td>Contemporary Ukrainian Literature</td>
</tr>
<tr>
<td>SLA1404Y</td>
<td>Studies in Ukrainian Poets</td>
</tr>
<tr>
<td>SLA1406Y</td>
<td>Studies in Ukrainian Literary Criticism</td>
</tr>
<tr>
<td>SLA1407H</td>
<td>Aspects of Literary Translation of Ukrainian</td>
</tr>
<tr>
<td>SLA1412H</td>
<td>Literature of the Ukrainian Diaspora</td>
</tr>
<tr>
<td>SLA1455H</td>
<td>Experiments in Ukrainian Prose</td>
</tr>
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</table>
Social Justice Education

Social Justice Education: Introduction

Faculty Affiliation

Ontario Institute for Studies in Education (OISE)

Degree Programs

Social Justice Education

MA, MEd, EdD, and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Comparative, International and Development Education**
  - Social Justice Education, MA, MEd, EdD, PhD
- **Development Policy and Power**
  - Social Justice Education, MA, MEd
- **Diaspora and Transnational Studies**
  - Social Justice Education, MA, MEd, EdD, PhD
- **Education, Francophonies and Diversity**
  - Social Justice Education, MA, MEd, EdD, PhD
- **Educational Policy** (admissions have been administratively suspended)
  - Social Justice Education, MA, MEd, EdD, PhD
- **Environmental Studies**
  - Social Justice Education, MA, MEd, EdD, PhD
- **Ethnic, Immigration and Pluralism Studies**
  - Social Justice Education, MA, MEd, EdD, PhD
- **Sexual Diversity Studies**
  - Social Justice Education, MA, MEd, EdD, PhD
- **South Asian Studies**
  - Social Justice Education, MA, MEd, EdD, PhD
- **Women and Gender Studies**
  - Social Justice Education, MA, MEd, EdD, PhD
- **Workplace Learning and Social Change**
  - Social Justice Education, MA, MEd, EdD, PhD

Overview

The Department of Social Justice Education offers a multi- and interdisciplinary graduate program developed from the past programs of History and Philosophy of Education as well as Sociology and Equity Studies in Education. It is an intellectual community committed to producing and advancing knowledge on social justice education in Canada and beyond. Social justice education is a term used in robust ways in the department and this allows for diverse meanings and methodologies.

The department’s graduate programs are concerned with both theoretical and empirical problems regarding in/equity in educational spaces, broadly conceived. Faculty and students approach their inquiries from disciplinary (e.g., anthropology, history, philosophy, political science, or sociology) and/or interdisciplinary (e.g., anti-colonial, critical race, disability, feminist, francophone, indigenous, or queer) perspectives. The graduate programs focus on identifying new relationships and making connections by asking significant questions about social justice education within and across disciplines. Hence, they foreground research and teaching in social justice education, pursued through analytical and empirical tools from the humanities and social sciences.

The department enables both graduate students and initial teacher education students to explore questions such as, “What was, what is, and what should be the relationship between education and society?” and “What kinds of knowledge do educators need to answer those questions?” The department aims to provide students with the academic knowledge and skills necessary to raise and engage questions of critical importance to educational theories and practices, and their relationship to individuals, communities, and societies.

Contact and Address

Admissions

Initial inquiries regarding admission to graduate studies in the Department of Social Justice Education (SJE) should be made directly to:

Web: www.oise.utoronto.ca/registrar-students
Email: admissions.oise@utoronto.ca
Tel: (416) 978-4300
Fax: (416) 323-9964

Registrar’s Office and Student Experience
Ontario Institute for Studies in Education (OISE)
University of Toronto
252 Bloor Street West, Room 8-225
Toronto, Ontario M5S 1V6
Canada

Program

Web: www.oise.utoronto.ca/sje
Email (Admissions and Programs): oise.sjegrad@utoronto.ca
Phone: (416) 978-0397

Department of Social Justice Education
Ontario Institute for Studies in Education
University of Toronto
252 Bloor Street West, 12th Floor North
Toronto, Ontario M5S 1V6
Canada

Social Justice Education: Graduate Faculty

Full Members

Bakan, Abigail - BA, MA, PhD
Bialystok, Lauren - PhD
Boler, Megan - BA, PhD
Cannon, Martin - MA, PhD
Coloma, Roland Sintos - TD, BA, MA, MA, PhD
Dei, George J.S. - BA, MA, PhD
Farmer, Diane - BA, MA, PhD (Associate Chair)
Georgis, Dina - PhD
Hampton, Rosalind - BFA, MA, PhD
Healey, Devon - PhD
Heller, Monica - BA, MA, PhD
Madibbo, Amal - BA, MA, PhD
McCready, Lance - BA, MA, PhD
McDougall, Douglas - BM, BEd, MEd, EdD
O'Sullivan, Julia - BA, MA, PhD
Portelli, John - MEd, PhD
Titchkosky, Tanya - BA, MA, PhD (Associate Chair)
Todorova, Miglena - BA, MA, PhD (Associate Chair)
Tuck, Eve - BA, PhD (Graduate Coordinator)
Walcott, Rinaldo - BA, MA, PhD
Wane, Njoki - BE, MSc, MEd, PhD (Chair and Graduate Chair)
Wheelahan, Leesa - BA, MA, PhD

Members Emeriti
Acker, Sandra - BA, MA, PhD
Dehli, Kari - BA, MA, PhD
Livingstone, David - BA, PhD

Associate Members
Brant, Jennifer - BA, MEd, PhD
Ilmi, Ahmed - BA, MA, PhD
Kellogg, Paul - BA, MA, DrRerPol
Kipkosgei, Evelyn - PhD
McGuire, Anne - AB, MA, EdD
Michalko, Rod - BA, MA, PhD
Nxumalo, Fikile - PhD
Oladi Ghadikolaei, Soudeh - PhD
Sherwood, Yvonne Patricia - AA, BA, MA
Stewart, Suzanne - BA, MA, PhD
Wasike, Aggrey - BA, MA, MA, DPhil
Zoric, Terezia - BEd, BA, MA

Social Justice Education: Social Justice Education MA

Master of Arts

Program Description

The Social Justice Education (SJE) program welcomes applicants with diverse, relevant backgrounds. The MA program is a research-based degree program which can be taken on a full-time or part-time basis.

Delivery options: Although not all elective courses are offered in each modality, students may be able to complete the MA degree program through one of three delivery modes:

- in-person (students will mainly complete their coursework and other program requirements in-person, with up to one-third of their coursework online);
- hybrid (students will experience a mix of modes of engagement, with some of their coursework and other program requirements in-person and between one-third and two-thirds of their coursework online); and
- online (students will be able to complete all their coursework and other program requirements online) depending on their choice of a collaborative specialization, or other elective courses.

Note: not all collaborative specializations or courses are offered in each modality. Students should consult with their faculty advisor and/or graduate liaison officer regarding available options.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department's additional admission requirements stated below.
- Admission to the MA program requires an appropriate bachelor's degree in a humanities, social science, or cognate discipline from a recognized university, with standing equivalent to a University of Toronto mid-B or better in the final year.
- Applicants must submit the following through the online application system: incomplete applications may be subject to processing delays or rejection:
  - A careful response to all Faculty questions in the online admissions application that demonstrates intellectual interests and concerns relevant to the humanities, or social sciences, and social justice in education as well as reasons for undertaking a program in the department. Include a statement of preference for one or more faculty members whose research is best matched to the student's research interests.
  - Two letters of reference, preferably from university instructors with whom the applicant has studied or worked.
  - At least one sample of written work that demonstrates engagement with the humanities, or social sciences, and social justice in education.
  - Résumé that provides clear and complete information about the applicant's work or field experience related to their proposed studies.

Program Requirements

- Coursework. Students must complete 3.0 full-course equivalents (FCEs) as follows:
  - Subject to consultation with a faculty advisor, SJE1903H Major Concepts and Issues in Social Justice Education (0.5 FCE) is recommended.
  - 2.5 other FCEs, of which at least 1.5 FCEs must be SJE courses.
  - Students who are registered in an optional collaborative specialization may apply to have their SJE course requirement reduced by 0.5 FCE.
  - Students must consult with their faculty advisor before enrolling in any out-of-department course for which they wish to receive SJE credit.
  - Additional courses may be required of some students, and some students may be required to take specified courses in research methods and/or theory.
- Students complete a thesis which may lay the groundwork for doctoral research.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S);
10 sessions part-time

Time Limit

3 years full-time;
6 years part-time
Social Justice Education: Social Justice Education MEd

Master of Education

Program Description

The Department of Social Justice Education (SJE) welcomes applicants with diverse, relevant backgrounds. The Master of Education (MEd) program can be taken on a full-time or part-time basis.

Delivery options: Students may choose to pursue the MEd degree program through one of three delivery modes:

• in-person (students will mainly complete their coursework and other program requirements in-person, with up to one-third of their coursework online);
• hybrid (students will experience a mix of modes of engagement, with some of their coursework and other program requirements in-person and between one-third and two-thirds of their coursework online); and
• online (students will be able to complete all their coursework and other program requirements online) depending on their choice of a collaborative specialization, or other elective courses.

Note: not all collaborative specializations or courses are offered in each modality. Students should consult with their faculty advisor and/or graduate liaison officer regarding available options.

MEd Program (Coursework Only Option)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department's additional admission requirements stated below.
• Admission to the MEd program requires an appropriate bachelor's degree from a recognized university, with a standing equivalent to a University of Toronto mid-B or better in the final year.
• Applicants must have the equivalent of 12 months of professional experience.
• Applicants must submit the following through the online application system; incomplete applications may be subject to processing delays or rejection:
  o A careful response to all Faculty questions in the online admissions application that demonstrates intellectual interests and concerns relevant to the humanities, or social sciences, and social justice in education as well as reasons for undertaking a program in the department. Include a statement of preference for one or more faculty members whose research is best matched to the student's research interests.
  o Two letters of reference, preferably from university instructors with whom the applicant has studied or worked; the second letter of reference may be written by a work or community-based supervisor.
  o At least one sample of written work that demonstrates engagement with the humanities or social sciences, and social justice in education.
  o Resumé that provides clear and complete information about the applicant's work or field experience related to their proposed studies.

Program Requirements

• Coursework. Students must complete 5.0 full-course equivalents (FCEs) including:
  o Subject to consultation with a faculty advisor, SJE1903H Major Concepts and Issues in Social Justice Education (0.5 FCE) is recommended.
  o At least half of the FCEs in an MEd program must be SJE courses.
  o Students who are registered in an optional collaborative specialization may apply to have their SJE course requirement reduced by 0.5 FCE.
  o Students must consult with their faculty advisor before enrolling in any out-of-department course for which they wish to receive SJE credit.

Program Length

4 sessions full-time (typical registration sequence: F/W/S/F); 10 sessions part-time

Time Limit

3 years full-time;
6 years part-time

MEd Program (Coursework Plus Major Research Paper Option)

Minimum Admission Requirements

• Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department's additional admission requirements stated below.
• Admission to the MEd program requires an appropriate bachelor's degree from a recognized university, with a standing equivalent to a University of Toronto mid-B or better in the final year.
• Applicants must have the equivalent of 12 months of professional experience.
• Applicants must submit the following through the online application system; incomplete applications may be subject to processing delays or rejection:
  o A careful response to all Faculty questions in the online admissions application of intellectual interests and concerns relevant to the humanities, or social sciences, and social justice in education as well as reasons for undertaking a program in the department. Include a statement of preference for one or more faculty members whose research is best matched to the student's research interests.
  o Two letters of reference, preferably from university instructors with whom the applicant has studied or worked; the second letter of reference may be written by a work or community-based supervisor.
  o At least one sample of written work that demonstrates engagement with the humanities or social sciences, and social justice in education.
  o Resumé that provides clear and complete information about the applicant's work or field experience related to their proposed studies.
worked; the second letter of reference may be written by a work or community-based supervisor.

- At least one sample of written work that demonstrates engagement with the humanities or social sciences, and social justice in education.
- Résumé that provides clear and complete information about the applicant's work or field experience related to their proposed studies.

Program Requirements

- **Coursework.** Students must complete 4.0 full-course equivalents (FCES) including:
  - Subject to consultation with a faculty advisor, SJE1903H *Major Concepts and Issues in Social Justice Education* (0.5 FCE) is recommended.
  - At least half of the FCEs in an MEd program must be SJE courses.
  - Students who are registered in an optional collaborative specialization may apply to have their SJE course requirement reduced by 0.5 FCE.
  - Students must consult with their faculty advisor before enrolling in any out-of-department course for which they wish to receive SJE credit.

- **Major Research Paper (MRP):** SJE2001Y\(^0\)*Major Research Paper.*

Program Length

5 sessions full-time (typical registration sequence: F/N/S/F/N); 10 sessions part-time

Time Limit

3 years full-time;
6 years part-time

\(^0\) Course that may continue over a program. The course is graded when completed.

Social Justice Education: Social Justice Education MA, MEd Courses

Not all courses are offered every year. Please consult the course schedule on the Registrar’s Office and Student Experience website.

Master’s Level

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>SJE1900H</td>
<td>Introduction à la sociologie de l'éducation</td>
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<tr>
<td>SJE1900H</td>
<td>Introduction to Sociology in Education</td>
</tr>
<tr>
<td>SJE1902H</td>
<td>Introductory Sociological Research Methods in Education</td>
</tr>
<tr>
<td>SJE1903H</td>
<td>Major Concepts and Issues in Social Justice Education</td>
</tr>
<tr>
<td>SJE1905H</td>
<td>Qualitative Research Methods for Social Justice</td>
</tr>
<tr>
<td>SJE1909H</td>
<td>Environmental Sustainability and Social Justice 1</td>
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<tr>
<td>SJE1912H</td>
<td>Foucault and Research in Education and Culture: Discourse, Power, and the Subject</td>
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<tr>
<td>SJE1919H</td>
<td>Advanced Topics in Environmental Justice Education</td>
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<tr>
<td>SJE1921Y</td>
<td>The Principles of Anti-Racism Education</td>
</tr>
<tr>
<td>SJE1922H</td>
<td>Sociology of Race and Ethnicity</td>
</tr>
<tr>
<td>SJE1923H</td>
<td>Racism, Violence, and the Law: Issues for Researchers and Educators</td>
</tr>
<tr>
<td>SJE1924H</td>
<td>Modernization, Development, and Education in African Contexts</td>
</tr>
<tr>
<td>SJE1925H</td>
<td>Indigenous Knowledge and Decolonization: Pedagogical Implications</td>
</tr>
<tr>
<td>SJE1925H</td>
<td>Savoir indigène et décolonization</td>
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<tr>
<td>SJE1926H</td>
<td>Race, Space, and Citizenship: Research Methods</td>
</tr>
<tr>
<td>SJE1927H</td>
<td>Migration and Globalization</td>
</tr>
<tr>
<td>SJE1929H</td>
<td>Theorizing Asian Canada</td>
</tr>
<tr>
<td>SJE1930H</td>
<td>Race, Indigeneity, and the Colonial Politics of Recognition</td>
</tr>
<tr>
<td>SJE1931H</td>
<td>Centering Indigenous-Settler Solidarity in Theory and Research</td>
</tr>
<tr>
<td>SJE1932H</td>
<td>Decolonization, Settler Colonialism, and Antiblackness (Exclusion: SJE5024H.)</td>
</tr>
<tr>
<td>SJE1933H</td>
<td>Participatory Action Research and Community Based Research (Exclusion: SJE5011H.)</td>
</tr>
<tr>
<td>SJE1951H</td>
<td>L'école, la participation parentale et la communauté</td>
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<tr>
<td>SJE1951H</td>
<td>The School and the Community</td>
</tr>
<tr>
<td>SJE1954H</td>
<td>Marginality and the Politics of Resistance</td>
</tr>
<tr>
<td>SJE1956H</td>
<td>Social Relations of Cultural Production in Education</td>
</tr>
<tr>
<td>SJE1957H</td>
<td>Disability Studies: An Introduction</td>
</tr>
<tr>
<td>SJE1958H</td>
<td>The Cultural Production of the Self as a Problem in Education</td>
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<tr>
<td>SJE1961H</td>
<td>Spirituality and Schooling</td>
</tr>
<tr>
<td>SJE1970H</td>
<td>Applied Ethics in Higher Education</td>
</tr>
<tr>
<td>SJE1971H</td>
<td>Identity and Education</td>
</tr>
<tr>
<td>SJE1972H</td>
<td>Contemporary Ethical Issues in Schooling and Education</td>
</tr>
<tr>
<td>SJE1973H</td>
<td>Liberalism and its Critics</td>
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</table>
The Doctor of Education (EdD) degree program is distinct from the PhD in that students are encouraged to orient towards applied and theoretical dimensions of professional educational practice understood as knowledge, teaching, and learning which takes place within or beyond schooling.

The EdD in Social Justice Education (SJE) is ideal for those with an interest in professional and/or voluntary practice in relevant field domains, where there is a relation between theory and practice and where the skills and commitment of dedicated and research-informed practitioners are pivotal to outcomes. Those interested in the degree program will be professionals including teachers, school and community leaders, health and legal professionals, and those working, volunteering, or seeking employment in related fields in social justice education.

The Department of Social Justice Education welcomes applicants with diverse, relevant backgrounds. The EdD program can be taken on a full-time or part-time basis.

**Delivery options:** EdD programs are delivered in-person with the possibility of completing the program requirements through a hybrid delivery mode — students will experience a mix of modes of engagement with some of their coursework and other program requirements in-person, and between one-third and two-thirds of their coursework online.

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department's additional admission requirements stated below.
- Admission to the EdD program requires a University of Toronto MEd or MA in education, or its equivalent from a recognized university, in the same field of specialization proposed at the doctoral level, completed with a standing equivalent to a University of Toronto B+ or better in master's courses.
- Applicants must have the equivalent of 12 months of professional experience.
- Applicants must submit the following through the online application system; incomplete applications may be subject to processing delays or rejection:
  - A careful response to all Faculty questions in the online admissions application that demonstrates intellectual interests and concerns relevant to the humanities or social sciences, and social justice in education as well as reasons for undertaking a program in the department. Include a statement of preference for one or more faculty members whose research is best matched to the student's research interests.
  - Two letters of reference, preferably from university instructors with whom the applicant has studied or worked; the second letter of reference may be written by a work-based supervisor.
  - At least one sample of written work that demonstrates engagement with the humanities or social sciences, and social justice in education.
  - Resumé that provides clear and complete information about the applicant's work or field experience related to their proposed studies.

**Program Requirements**

- **Coursework.** Students must complete 4.0 full-course equivalents (FCEs) as follows:
  - Required half course (0.5 FCE): SJE3997H Practicum in Social Justice Education (72 hours).
  - Subject to consultation with a faculty advisor, SJE3905H Interdisciplinary Approaches to Research: Theory and Praxis (0.5 FCE) is recommended.

<table>
<thead>
<tr>
<th>SJE Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SJE1974H</td>
<td>Truth Commissions Reconciliation and Indian Residential Schools</td>
</tr>
<tr>
<td>SJE1975H</td>
<td>Indigenous Settler Relations Issues for Teachers</td>
</tr>
<tr>
<td>SJE1976H</td>
<td>Critical Media Literacy Education</td>
</tr>
<tr>
<td>SJE1977H</td>
<td>Sociology of Indigenous and Alternative Approaches to Health and</td>
</tr>
<tr>
<td></td>
<td>Healing Practices: Implications for Education</td>
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<tr>
<td>SJE1978H</td>
<td>Sexual, Racial, and Gender-Based Violence Prevention in Higher</td>
</tr>
<tr>
<td></td>
<td>Education</td>
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<tr>
<td>SJE1979H</td>
<td>Race, Gender, and Empire in Socialist States</td>
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<tr>
<td>SJE1980H</td>
<td>Introduction to Research Methods for Social Justice: Master of</td>
</tr>
<tr>
<td></td>
<td>Education</td>
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<tr>
<td>SJE1982H</td>
<td>Women, Diversity, and the Educational System</td>
</tr>
<tr>
<td>SJE1989H</td>
<td>Black Feminist Thought</td>
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<tr>
<td>SJE1993H</td>
<td>Militarism and Sustainability: Concepts of Nature, State, and</td>
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<td></td>
<td>Society</td>
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<td>SJE2001Y</td>
<td>Major Research Paper</td>
</tr>
<tr>
<td>SJE2030H</td>
<td>Disability Studies and the Human Imaginary (Exclusion: SJE5004H.)</td>
</tr>
<tr>
<td>SJE2929H</td>
<td>Disability Studies — Interpretive Methods — RM (Exclusion:</td>
</tr>
<tr>
<td></td>
<td>SJE3929H.)</td>
</tr>
<tr>
<td>SJE2941H</td>
<td>Bourdieu: Theory of Practice in Social Sciences</td>
</tr>
<tr>
<td>SJE2998H</td>
<td>Individual Reading and Research in Social Justice Education: Master's</td>
</tr>
<tr>
<td>SJE5000H</td>
<td>Special Topics in Social Justice Research in Education: Master's</td>
</tr>
<tr>
<td>SJE5062H</td>
<td>Language, Culture, and Education / Langue, culture, et éducation</td>
</tr>
</tbody>
</table>

*Course that may continue over a program. The course is graded when completed.*
The PhD program can be taken on a full-time or flexible-time basis. The PhD degree program is designed to provide opportunities for advanced study, original research, and theoretical analysis.

Program Description

Doctor of Philosophy

The PhD degree program is designed to provide opportunities for advanced study, original research, and theoretical analysis. The PhD program can be taken on a full-time or flexible-time basis. The Department of Social Justice Education (SJE) welcomes applicants with diverse, relevant backgrounds.

The flexible-time PhD degree is designed to accommodate demand by practising professionals for a PhD degree that permits continued employment in areas related to their areas of research. Degree requirements for the flexible-time and full-time PhD programs are the same. Flexible-time PhD students register full-time during the first four years and part-time during subsequent years of the program.

Delivery options: PhD programs are delivered in-person, and between one-third and two-thirds of their coursework online.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department's additional admission requirements stated below.
- PhD students who are admitted without sufficient previous study in a humanities, social science, or a cognate discipline may be required to take additional courses.
- Applicants must submit the following through the online application system: incomplete applications may be subject to processing delays or rejection:
  - A careful response to all Faculty questions in the online admissions application that demonstrates intellectual interests and concerns relevant to the humanities or social sciences, and social justice in education as well as reasons for undertaking a program in the department. Include a statement of preference for one or more faculty members whose research is best matched to the student's research interests.
  - Two letters of reference, preferably from university instructors with whom the applicant has studied or worked.
  - At least one sample of written work that demonstrates engagement with the humanities or social sciences, and social justice in education.
  - Resumé that provides clear and complete information about the applicant's work or field experience related to their proposed studies.

Program Requirements

- Coursework. Students must complete 3.0 full-course equivalents (FCEs) including:
  - Subject to consultation with a faculty advisor, SJE3905H Interdisciplinary Approaches to Research: Theory and Praxis (0.5 FCE) is recommended. Additional courses may be required, and some students may be required to take other specified courses in research methods and/or theory.
  - At least 2.0 FCEs must be taken within SJE.
  - Students who are registered in an optional collaborative specialization may apply to have their SJE course requirement reduced by 0.5 FCE.
  - Students must consult with their faculty advisor before enrolling in any out-of-department course for which they wish to receive SJE credit.

- Comprehensive examination:
  - Students are encouraged to take, as part of their program requirements, one half course (0.5 FCE) focused on the substantive area on which they will be examined.
  - Students choose one of the following:
    - a major paper (30 to 40 pages); or
    - a substantive course outline (30 to 40 pages) for a topic of interest to the student within the area of social justice education; or
    - a solid draft of a scholarly article.
  - The option selected and the date for the comprehensive exam will be decided by the student and the supervisor. The comprehensive exam should be taken no later than the end of Year 3.
Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the department's additional admission requirements stated below.
- PhD students who are admitted without sufficient previous study in a humanities, social science, or a cognate discipline may be required to take additional courses.
- Applicants must submit the following through the online application system: incomplete applications may be subject to processing delays or rejection:
  - A careful response to all Faculty questions in the online admissions application that demonstrates intellectual interests and concerns relevant to the humanities or social sciences, and social justice in education as well as reasons for undertaking a program in the department. Include a statement of preference for one or more faculty members whose research is best matched to the student's research interests
  - Two letters of reference, preferably from university instructors with whom the applicant has studied or worked
  - At least one sample of written work that demonstrates engagement with the humanities or social sciences, and social justice in education.
  - Resume that provides clear and complete information about the applicant's work or field experience related to their proposed studies.
- Applicants must demonstrate that they are currently employed and are active professionals engaged in activities related to their proposed program of study.

Program Requirements

- Coursework. Students must complete at least 3.0 full-course equivalents (FCEs) including:
  - At least 2.0 FCEs taken in SJE, with the possibility to apply for a reduction of 0.5 FCE in the SJE course requirement if the student is also registered in an optional collaborative specialization.
  - Subject to consultation with a faculty advisor, SJE3905H Interdisciplinary Approaches to Research: Theory and Praxis (0.5 FCE) is recommended.
  - Students must consult with their faculty advisor before enrolling in any out-of-department course for which they wish to receive SJE credit.
- Comprehensive examination:
  - Students are encouraged to take, as part of their program requirements, one half course (0.5 FCE) focused on the substantive area on which they will be examined.
  - Students choose one of the following:
    - a major paper (30 to 40 pages); or
    - a substantive course outline (30 to 40 pages) for a topic of interest to the student within the area of social justice education; or
    - a solid draft of a scholarly article.
  - The option selected and the date for the comprehensive exam will be decided by the student and the supervisor. The comprehensive exam should be taken no later than the end of Year 4.
  - A student who fails the comprehensive exam will be permitted one additional attempt to pass. A second failure will result in the recommendation for termination of the student's registration.
  - Comprehensive exams will be graded on a pass or fail basis.
- Students must submit a thesis and defend it at a Doctoral Final Oral Examination. The thesis must embody the results of original investigation conducted by the student under the direction of an OISE thesis committee. The thesis must constitute a significant contribution to the knowledge of the field of study. The student must have an approved thesis topic, supervisor, and an approved thesis committee by the end of Year 3, and must have completed all other program requirements.
- Students cannot transfer between the EdD and PhD programs.

PhD Program (Flexible-Time)

Program Length

4 years

Time Limit

6 years

Program Requirements

- Coursework. Students must complete at least 3.0 full-course equivalents (FCEs) including:
  - At least 2.0 FCEs taken in SJE, with the possibility to apply for a reduction of 0.5 FCE in the SJE course requirement if the student is also registered in an optional collaborative specialization.
  - Subject to consultation with a faculty advisor, SJE3905H Interdisciplinary Approaches to Research: Theory and Praxis (0.5 FCE) is recommended.
  - Students must consult with their faculty advisor before enrolling in any out-of-department course for which they wish to receive SJE credit.
- Comprehensive examination:
  - Students are encouraged to take, as part of their program requirements, one half course (0.5 FCE) focused on the substantive area on which they will be examined.
  - Students choose one of the following:
    - a major paper (30 to 40 pages); or
    - a substantive course outline (30 to 40 pages) for a topic of interest to the student within the area of social justice education; or
    - a solid draft of a scholarly article.
  - The option selected and the date for the comprehensive exam will be decided by the student and the supervisor. The comprehensive exam should be taken no later than the end of Year 4.
  - A student who fails the comprehensive exam will be permitted one additional attempt to pass. A second failure will result in the recommendation for termination of the student's registration.
  - Comprehensive exams will be graded on a pass or fail basis.
- Students must submit a thesis and defend it at a Doctoral Final Oral Examination. The thesis must embody the results of original investigation conducted by the student under the direction of an OISE thesis committee. The thesis must constitute a significant contribution to the knowledge of the field of study. The student must have an approved thesis topic, supervisor, and an approved thesis committee by the end of Year 3, and must have completed all other program requirements.
- Students cannot transfer between the EdD and PhD programs.

Program Length

6 years

Time Limit

8 years
Social Justice Education: Social Justice Education EdD, PhD Courses

Not all courses are offered every year. Please consult the course schedule on the Registrar’s Office and Student Experience website.

**Doctoral Level**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SJE1403H</td>
<td>History of Education in Canada</td>
</tr>
<tr>
<td>SJE1440H</td>
<td>An Introduction to Philosophy of Education</td>
</tr>
<tr>
<td>SJE1956H</td>
<td>Social Relations of Cultural Production in Education</td>
</tr>
<tr>
<td>SJE1979H</td>
<td>Race, Gender, and Empire in Socialist States</td>
</tr>
<tr>
<td>SJE2929H</td>
<td>Disability Studies — Interpretive Methods — RM (Exclusion: SJE3929H.)</td>
</tr>
<tr>
<td>SJE3417H</td>
<td>Research Seminar in Feminist Criticism, Aesthetics, and Pedagogy</td>
</tr>
<tr>
<td>SJE3903H</td>
<td>SJE Learning to Succeed in Graduate School</td>
</tr>
<tr>
<td>SJE3905H</td>
<td>Interdisciplinary Approaches to Research: Theory and Praxis</td>
</tr>
<tr>
<td>SJE3911H</td>
<td>Cultural Knowledges, Representation, and Colonial Education</td>
</tr>
<tr>
<td>SJE3912H</td>
<td>Race and Knowledge Production: Research Methods</td>
</tr>
<tr>
<td>SJE3914H</td>
<td>Anti-Colonial Thought and Pedagogical Challenges</td>
</tr>
<tr>
<td>SJE3915H</td>
<td>Franz Fanon and Education</td>
</tr>
<tr>
<td>SJE3916H</td>
<td>Women in Leadership Positions: Intersectionalities and Leadership Practices; Sociological Implications in Education</td>
</tr>
<tr>
<td>SJE3917H</td>
<td>Indigenous Land Education and Black Geographies (Prerequisite: any prior Indigenous and/or Black Studies course(s). Exclusion: SJE5007H.)</td>
</tr>
<tr>
<td>SJE3933H</td>
<td>Globalisation and Transnationality: Feminist Perspectives</td>
</tr>
<tr>
<td>SJE3934H</td>
<td>Advanced Indigenous Feminist Research (Prerequisite: prior coursework in Indigenous studies, women and gender studies. Exclusion: SJE6000H.)</td>
</tr>
<tr>
<td>SJE3935H</td>
<td>African Classics: Decolonial Thought in Education (Exclusions: SJE5017H, SJE6003H.)</td>
</tr>
<tr>
<td>SJE3997H</td>
<td>Practicum in Social Justice Education</td>
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<tr>
<td>SJE3998H</td>
<td>Individual Reading and Research in Sociology Justice Education</td>
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<tr>
<td>SJE5042Y</td>
<td>Special Topics in Social Justice Research in Education: Master's Level</td>
</tr>
<tr>
<td>SJE6000H to SJE6020H</td>
<td>Special Topics in Social Justice Research in Education: Doctoral Level</td>
</tr>
<tr>
<td>JSA5147H</td>
<td>Language, Nationalism, and Post-Nationalism</td>
</tr>
</tbody>
</table>
Overview

As the oldest school of social work in Canada, the Factor-Inwentash Faculty of Social Work at the University of Toronto has been on the cutting edge of education, policy, research, and practice in social work for over 100 years. The Faculty offers a professional/academic program of study leading to Master of Social Work (MSW) and Doctor of Philosophy (PhD) degrees.

The mission of the Faculty at the University of Toronto has an international perspective that is influenced by its position within one of the top universities in North America located in a global metropolis. As such, the Faculty is committed to:

- Educating and developing professionals who have the capacity to engage in and influence our changing world through social work practice, policy, and research.
- Advancing research, practice, and policy that shapes the future of a profession that crosses national boundaries.
- Providing leadership by mobilizing knowledge that incorporates the range of expertise existing within the broader social work communities that exist internationally.
- Collaborating with our diverse partners to address social inequities at local, national, and global levels.

Contact and Address

Web: socialwork.utoronto.ca
Email: admissions.fsw@utoronto.ca
Telephone: (416) 978-6314
Fax: (416) 978-7072

Factor-Inwentash Faculty of Social Work
University of Toronto
246 Bloor Street West
Toronto, Ontario M5S 1V4
Canada

Social Work: Graduate Faculty

Full Members

Alaggia, Ramona - BA, MSW, PhD
Ashcroft, Rachelle - MSW, PhD
Bhuyan, Rupaleem - BA, MA, PhD (Director, PhD Program)
Brennan, David - BA, MSW, PhD
Burnes, David - MSW, PhD
Craig, Shelley - BS, MSW, PhD
Fallon, Barbara - BA, MSW, PhD
Fang, Lin - BA, MSW, PhD
Fuller-Thomson, Esme - BA, MSW, PhD
Grenier, Amanda - MSW, PhD
Hulchanski, J. David - BA, MSc, PhD
King, Bryn - MSW, PhD
Lee, Eunjung - BSW, MSW, PhD
Logie, Carmen - BA, MSW, PhD
Mishna, Faye - BA, PhD
Newman, Peter - BA, MA, MSW, PhD
Regehr, Cheryl - AB, MA, PhD
Saini, Michael - BSW, BA, BA, MSW, PhD
Sakamoto, Izumi - DSW
Sharpe, Tanya - BA, MSW, PhD
Shier, Micheal - MSW, PhD (Director, MSW Program)
Stern, Susan - DSW

Addition Studies
- Social Work, MSW, PhD

Aging, Palliative and Supportive Care Across the Life Course
- Social Work, MSW, PhD

Bioethics
- Social Work, PhD

Community Development (admissions have been administratively suspended)
- Social Work, MSW

Contemporary East and Southeast Asian Studies
- Social Work, MSW

Ethnic, Immigration and Pluralism Studies
- Social Work, MSW, PhD

Health Services and Policy Research
- Social Work, PhD

Public Health Policy
- Social Work, MSW, PhD

Sexual Diversity Studies
- Social Work, MSW, PhD

Women and Gender Studies
- Social Work, MSW, PhD

Women’s Health
- Social Work, MSW, PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- Addiction Studies
  - Social Work, MSW, PhD

- Aging, Palliative and Supportive Care Across the Life Course
  - Social Work, MSW, PhD

- Bioethics
  - Social Work, PhD

- Community Development (admissions have been administratively suspended)
  - Social Work, MSW

- Contemporary East and Southeast Asian Studies
  - Social Work, MSW

- Ethnic, Immigration and Pluralism Studies
  - Social Work, MSW, PhD

- Health Services and Policy Research
  - Social Work, PhD

- Public Health Policy
  - Social Work, MSW, PhD

- Sexual Diversity Studies
  - Social Work, MSW, PhD

- Women and Gender Studies
  - Social Work, MSW, PhD

- Women’s Health
  - Social Work, MSW, PhD
Members Emeriti

Bellamy, Donald - BA, BSW, MSW, DSW
Breton, Margot - BA, MSW
George, Usha - BSc, BEd, MA, MA, PhD
Irving, Howard - BS, MSW, DSW
MacFadden, Robert - BA, MSW, PhD
Marziali, Elsa - BA, MSW, DSW
McDonald, Lynn - PhD
Meeks, Donald - BA, MSW, DSW, Associate in Commerce
Neysmith, Sheila - BSc, MSW, DSW
Schlesinger, Benjamin - BA, MSW, PhD
Shapiro, Ben - BA, BSW, MSW, DSW
Wells, Lilian - BA, BSW, BA, MSW

Associate Members

Bay-Cheng, Laina Y. - PhD
Begun, Stephanie - MSW, PhD
Collin-Vezina, Delphine - BS, PhD
Davison, Karen - PhD
Ferrer, Ilyan - MSW, DPhil
Fleischer, Les - BA, MSW, DSW
Fu, Qiufang - MS, PhD
Ganson, Kyle - MSW, PhD
Gant, Larry - PhD
Gassoumis, Zachary - PhD
Graham, John R. - PhD
Helie, Sonia - MS, PhD
Herie, Marilyn - BA, MSW, PhD
Ickowicz, Abel - MD
James, Carl Everton - MA, PhD
Jeffery, Donna - PhD
Katz, Ellen - BA, MSW, PhD
Litvack, Andrea - BSW, MSW
Massaquoi, Notisha - BA, MA, PhD
McNeill, Ted - BA, MSc, DPhil
Muskat, Barbara - BSW, MSW, PhD
Nicholas, David - BSW, MSW, DPhil
Peterson, Zoe - MA, PhD
Quinn, Ashley - BSc, MSW, PhD
Steppert, Jackie - PhD
Taylor, Harry - MSW, PhD
Wadley, James - MS, PhD
Zhou, Yanqiu Rachel - PhD

Social Work: Social Work MSW

Master of Social Work

Program Description

The MSW program is distinguished by the integration of research and practice in both the classroom and its practicum education. The program offers six fields of specialization:

- Children and Their Families (MSW)
- Gerontology (MSW)
- Health and Mental Health (MSW)
- Human Services Management and Leadership (MSW)
- Indigenous Trauma and Resiliency (MSW)
- Social Justice and Diversity (MSW)

It is fully accredited by the Canadian Association for Social Work Education.

The Faculty of Social Work offers the Master of Social Work (MSW) program in a two-year option or an advanced-standing option for applicants entering with a Bachelor of Social Work (BSW) degree.

All students are expected to graduate with an advanced level of knowledge and professional competence in a chosen area of social work practice.

Social Work: Social Work MSW; Field: Children and Their Families

Master of Social Work (Field: Children and Their Families)

Within the MSW degree program, the field in Children and Their Families is designed to prepare students for social work practice with children and their families at all levels of intervention, from individual to group work with children, to family and couple intervention, to community organization, and to program and policy development.

Minimum Admission Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Social Work's additional admission requirements stated below.
- Applicants with an appropriate bachelor's degree with a minimum average equivalent to at least a University of Toronto mid-B in the final year of full-time study from a recognized university are admitted to a two-year MSW program.
- Applicants who hold a BSW degree with mid-B average in the final year of full-time study, or its equivalent from a recognized university, may be eligible for the MSW advanced-standing option.
- All applicants must have included 3.0 full-course equivalents (FCEs) in social science courses, including 0.5 FCE in research methodology. A mid-B is strongly recommended in the research methodology course.
- Experience (voluntary or paid) in the social services or related field and knowledge of critical social issues are recommended. Suitability for professional practice in social work will also be considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Advanced-standing applicants must declare their field and a preference for full-time or part-time studies at the time of application.
Initial admission inquiries should be made directly to the Faculty of Social Work. Please note that applicants holding the minimum admission requirements are not guaranteed admission. All admission decisions are final.

Program Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- **All MSW students**: Agencies that offer practica will likely require a Vulnerable Sector Verification prior to commencing the practicum. Failure to pass this check will jeopardize a student's entry to practicum. Cost and time factors are associated with the Vulnerable Sector Verification. A delay in obtaining the results can impact the start time of a student's practicum. In anticipation of this requirement for the practicum, it is strongly recommended that students begin this process early.

- In the event that a student does not complete two or more required courses, or receives an FZ (inadequate) after repeating any course, normally steps will be taken by the Faculty to recommend the termination of the student's registration.

Year 1 Compulsory Courses

Year 1 MSW students in the Children and Their Families field must complete the required courses below:

- Eight half courses (4.0 FCEs).
- SWK1999H *Equity, Diversity, and Inclusion Workshop* (0.0 FCE; Credit/No Credit), to be taken in the Fall session.
- The Year 1 practicum (0.5 FCE).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SWK1999H</td>
<td>Equity, Diversity, and Inclusion Workshop (Credit/No Credit)</td>
</tr>
<tr>
<td>SWK4102H</td>
<td>Social Policy and Social Welfare in the Canadian Context</td>
</tr>
<tr>
<td>SWK4103H</td>
<td>Elements of Social Work Practice</td>
</tr>
<tr>
<td>SWK4105H</td>
<td>Social Work Practice Laboratory</td>
</tr>
<tr>
<td>SWK4107H</td>
<td>Foundations of Social Work: Knowledge, Theory, and Values that Inform Practice</td>
</tr>
<tr>
<td>SWK4510H</td>
<td>Research for Evidence-Based Social Work Practice (SWK4510H must be completed before taking any of the research courses in the field)</td>
</tr>
<tr>
<td>SWK4602H</td>
<td>Social Work Practice with Groups</td>
</tr>
<tr>
<td>SWK4605H</td>
<td>Social Work Practice with Individuals and Families</td>
</tr>
<tr>
<td>SWK4654H</td>
<td>Social Work Practice in Organizations and Communities</td>
</tr>
</tbody>
</table>

*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*

- Students in the MSW **two-year program** must declare their field by mid-February of Year 1. See below for information by field.

- **Note**: advanced-standing students normally complete the program in one year of full-time study or two years of part-time study.

- The MSW thesis option provides hands-on research experience. The thesis is an independent piece of research intended to enable students to develop and apply research skills within the context of social work practice and to write a graduate thesis of publishable quality. Note: The thesis option is available to a limited number of students — maximum three in any given year — whose proposed research must be approved by a review panel and by the Associate Dean, Research.

- Students in the thesis option who have a minimum of two years' prior full-time social work experience are eligible to apply to take an additional 1.0 elective FCE in place of the Year 2 practicum. Workplace supervision must have occurred with an MSW supervisor; requests for substitution must be reviewed and approved by the Faculty Assessment Committee.

- Students who choose the thesis option may require at least one additional academic session to complete the program.

MSW Two-Year Program

- Students must complete a total of **8.5 FCEs** including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), elective coursework (1.0 FCE), and practica (1.5 FCEs). The practicum (0.5 FCE) is required for students in Year 1 and is offered in the Winter session; the Year 2 practicum (September to April) is equivalent to 1.0 FCE and must be in the student's field.

- Thesis option: students must complete a total of **8.5 FCEs**, including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), practica (1.5 FCEs), and a thesis (1.0 FCE).

Year 2 Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK4514H</td>
<td>Research for Practice with Children and their Families</td>
</tr>
<tr>
<td>SWK4608H</td>
<td>Social Work Practice with Families</td>
</tr>
<tr>
<td>SWK4620H</td>
<td>Social Work Practice with Children and Adolescents</td>
</tr>
<tr>
<td>SWK4625H</td>
<td>The Intersection of Policy and Practice with Children and their Families</td>
</tr>
<tr>
<td>SWK4702Y</td>
<td>Social Work Practicum II (full credit)</td>
</tr>
</tbody>
</table>

MSW Advanced-Standing Option

Students in the advanced standing option:
Will normally complete a total of 4.5 FCEs including required coursework (2.5 FCEs), elective coursework (1.0 FCE), and a practicum (1.0 FCE) in their field.

Thesis option: must complete a total of 4.5 FCEs including required coursework (2.5 FCEs), a practicum (1.0 FCE), and a thesis (1.0 FCE).

Must complete the Year 1 compulsory courses. SWK4510H Research for Evidence-Based Social Work Practice must be completed before taking any of the research courses in the field.

Must complete SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit) during the Fall session of Year 1.

Are expected to complete the requirements in three sessions (one year).

Program Length

6 sessions two-year full-time (typical registration sequence: F/W/S/F/W/S);
3 sessions advanced-standing full-time (typical registration sequence: F/W/S);
6 sessions advanced-standing part-time

Time Limit

3 years full-time;
6 years part-time

Social Work: Social Work MSW; Field: Gerontology

Master of Social Work (Field: Gerontology)

Social workers provide a wide variety of services and programs, both in the community and in institutions that are aimed at enhancing the quality of life of older people and assisting families to adjust to the aging of their family member. Social workers also play a vital role in the development and implementation of social and economic policies at the provincial and national levels through research on aging, consultation with government, and through social advocacy.

All students enrolled in the Social Work in Gerontology field will automatically be enrolled in the Collaborative Specialization in Aging, Palliative and Supportive Care Across the Life Course.

Minimum Admission Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Social Work’s additional admission requirements stated below.
- Applicants with an appropriate bachelor’s degree with a minimum average equivalent to at least a University of Toronto mid-B in the final year of full-time study from a recognized university are admitted to a two-year MSW program.
- Applicants who hold a BSW degree with mid-B average in the final year of full-time study, or its equivalent from a recognized university, may be eligible for the MSW advanced-standing option.
- All applicants must have included 3.0 full-course equivalents (FCEs) in social science courses, including 0.5 FCE in research methodology. A mid-B is strongly recommended in the research methodology course.
- Experience (voluntary or paid) in the social services or related field and knowledge of critical social issues are recommended. Suitability for professional practice in social work will also be considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Advanced-standing applicants must declare their field and a preference for full-time or part-time studies at the time of application.
- Initial admission inquiries should be made directly to the Faculty of Social Work. Please note that applicants holding the minimum admission requirements are not guaranteed admission. All admission decisions are final.

Program Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- All MSW students: Agencies that offer practica will likely require a Vulnerable Sector Verification prior to commencing the practicum. Failure to pass this check will jeopardize a student’s entry to practicum. Cost and time factors are associated with the Vulnerable Sector Verification. A delay in obtaining the results can impact the start time of a student’s practicum. In anticipation of this requirement for the practicum, it is strongly recommended that students begin this process early.
- In the event that a student does not complete two or more required courses, or receives an FZ (inadequate) after repeating any course, normally steps will be taken by the Faculty to recommend the termination of the student’s registration.

Year 1 Compulsory Courses

Year 1 MSW students in the Gerontology field must complete the required courses below:

- Eight half courses (4.0 FCEs).
- SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit), to be taken in the Fall session.
- the Year 1 practicum (0.5 FCE).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK1999H</td>
<td>Equity, Diversity, and Inclusion Workshop (Credit/No Credit)</td>
</tr>
<tr>
<td>SWK4102H</td>
<td>Social Policy and Social Welfare in the Canadian Context</td>
</tr>
<tr>
<td>SWK4103H</td>
<td>Elements of Social Work Practice</td>
</tr>
</tbody>
</table>
SWK4105H  Social Work Practice Laboratory
SWK4107H  Foundations of Social Work: Knowledge, Theory, and Values that Inform Practice
SWK4510H  Research for Evidence-Based Social Work Practice (SWK4510H must be completed before taking any of the research courses in the field)
SWK4602H  Social Work Practice with Groups
SWK4605H  Social Work Practice with Individuals and Families
SWK4654H  Social Work Practice in Organizations and Communities
SWK4701H*  Social Work Practicum I (prerequisite: SWK4105H completed prior to beginning practicum)

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

- Students in the MSW two-year program must declare their field by mid-February of Year 1.
- Note: Advanced-standing students normally complete the program in one year of full-time study or two years of part-time study.
- The MSW thesis option provides hands-on research experience. The thesis is an independent piece of research intended to enable students to develop and apply research skills within the context of social work practice and to write a graduate thesis of publishable quality. Note: The thesis option is available to a limited number of students — maximum three in any given year — whose proposed research must be approved by a review panel and by the Associate Dean, Research.
- Students in the thesis option who have a minimum of two years’ prior full-time social work experience are eligible to apply to take an additional 1.0 elective FCE in place of the Year 2 practicum. Workplace supervision must have occurred with an MSW supervisor; requests for substitution must be reviewed and approved by the Faculty Assessment Committee.
- Students who choose the thesis option may require at least one additional academic session to complete the program.

MSW Two-Year Program

- Students in the MSW two-year program must complete a total of 8.5 FCEs, including core MSW coursework (4.0 FCEs), required field coursework (2.5 FCEs), elective coursework (0.5 FCE), and practica (1.5 FCEs) in the student’s field.
- Thesis option: students in the MSW two-year program complete a total of 8.5 FCEs, including:
  - Core MSW coursework (4.0 FCEs).
  - Required field coursework (2.5 FCEs).
  - Elective coursework (0.5 FCE) from the Collaborative Specialization (CS) in Aging, Palliative and Supportive Care Across the Life Course list of approved electives, excluding SWK4618H. To fulfill the elective requirement, students may request approval in advance from the CS Committee of an elective course not on this list.
  - The Year 1 practicum (0.5 FCE).

A thesis (1.0 FCE).

Year 2 Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE2000H</td>
<td>Principles of Aging</td>
</tr>
<tr>
<td>SWK4513H</td>
<td>Knowledge Building in Social Work</td>
</tr>
<tr>
<td>SWK4609H</td>
<td>Clinical Social Work Practice with Older Adults</td>
</tr>
<tr>
<td>SWK4611H</td>
<td>The Context of Social Work Practice with Older Adults and their Families</td>
</tr>
<tr>
<td>SWK4618H</td>
<td>Special Issues in Gerontological Social Work</td>
</tr>
<tr>
<td>SWK4702Y</td>
<td>Social Work Practicum II (full credit)</td>
</tr>
</tbody>
</table>

MSW Advanced-Standing Option

Students in the advanced-standing option:

- Will normally complete a total of 4.5 FCEs, including required coursework (3.0 FCEs), elective coursework (0.5 FCE), and a practicum (1.0 FCE).
- Thesis option: students must complete a total of 4.5 FCEs, including:
  - Required coursework (3.0 FCEs).
  - Elective coursework (0.5 FCE) from the Collaborative Specialization (CS) in Aging, Palliative and Supportive Care Across the Life Course list of approved electives, excluding SWK4618H. To fulfill the elective requirement, students may request approval in advance from the CS Committee of an elective course not on this list.
  - A thesis (1.0 FCE).
- Must complete the Year 1 compulsory courses. SWK4510H Research for Evidence-Based Social Work Practice must be completed before taking any of the research courses in the field.
- Complete SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit) during the Fall session of Year 1.
- Are expected to complete the requirements in three sessions (one year).

Program Length

6 sessions two-year full-time (typical registration sequence: F/W/S/F/W/S);
3 sessions advanced-standing full-time (typical registration sequence: F/W/S);
6 sessions advanced-standing part-time

Time Limit

3 years full-time;
6 years part-time
Social Work: Social Work MSW; Field: Health and Mental Health

Master of Social Work (Field: Health and Mental Health)

As members of inter-professional health teams, social workers seek to assist others in understanding the social and community context in which physical and mental illness occur, and the way in which these larger systems contribute to the development of illness and disability and exacerbate or ameliorate the challenges in adapting to illness and living with disability.

Minimum Admission Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Social Work’s additional admission requirements stated below.
- Applicants with an appropriate bachelor’s degree with a minimum average equivalent to at least a University of Toronto mid-B in the final year of full-time study from a recognized university are admitted to a two-year MSW program.
- Applicants who hold a BSW degree with mid-B average in the final year of full-time study, or its equivalent from a recognized university, may be eligible for the MSW advanced-standing option.
- All applicants must have included 3.0 full-course equivalents (FCEs) in social science courses, including 0.5 FCE in research methodology. A mid-B is strongly recommended in the research methodology course.
- Experience (voluntary or paid) in the social services or related field and knowledge of critical social issues are recommended. Suitability for professional practice in social work will also be considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Advanced-standing applicants must declare their field and a preference for full-time or part-time studies at the time of application.
- Initial admission inquiries should be made directly to the Faculty of Social Work. Please note that applicants holding the minimum admission requirements are not guaranteed admission. All admission decisions are final.

Program Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- All MSW students: Agencies that offer practica will likely require a Vulnerable Sector Verification prior to commencing the practicum. Failure to pass this check will jeopardize a student's entry to practicum. Cost and time factors are associated with the Vulnerable Sector Verification. A delay in obtaining the results can impact the start time of a student's practicum. In anticipation of this requirement for the practicum, it is strongly recommended that students begin this process early.
- In the event that a student does not complete two or more required courses, or receives an FZ (inadequate) after repeating any course, normally steps will be taken by the Faculty to recommend the termination of the student's registration.

Year 1 Compulsory Courses

Year 1 MSW students in the Health and Mental Health field must complete the required courses below:

- Eight half courses (4.0 FCEs).
- SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit), to be taken in the Fall session.
- The Year 1 practicum (0.5 FCE).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>SWK1999H</td>
<td>Equity, Diversity, and Inclusion Workshop (Credit/No Credit)</td>
</tr>
<tr>
<td>SWK4102H</td>
<td>Social Policy and Social Welfare in the Canadian Context</td>
</tr>
<tr>
<td>SWK4103H</td>
<td>Elements of Social Work Practice</td>
</tr>
<tr>
<td>SWK4105H</td>
<td>Social Work Practice Laboratory</td>
</tr>
<tr>
<td>SWK4107H</td>
<td>Foundations of Social Work: Knowledge, Theory, and Values that Inform Practice</td>
</tr>
<tr>
<td>SWK4510H</td>
<td>Research for Evidence-Based Social Work Practice (SWK4510H must be completed before taking any of the research courses in the field)</td>
</tr>
<tr>
<td>SWK4602H</td>
<td>Social Work Practice with Groups</td>
</tr>
<tr>
<td>SWK4605H</td>
<td>Social Work Practice with Individuals and Families</td>
</tr>
<tr>
<td>SWK4654H</td>
<td>Social Work Practice in Organizations and Communities</td>
</tr>
<tr>
<td>SWK4701H</td>
<td>Social Work Practicum I (prerequisite: SWK4105H completed prior to beginning practicum)</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

- Students in the MSW two-year program must declare their field by mid-February of Year 1.
- Note: Advanced-standing students normally complete the program in one year of full-time study or two years of part-time study.
- The MSW thesis option provides hands-on research experience. The thesis is an independent piece of research intended to enable students to develop and apply research skills within the context of social work practice and to write a graduate thesis of publishable quality.
Note: The thesis option is available to a limited number of students — maximum three in any given year — whose proposed research must be approved by a review panel and by the Associate Dean, Research.

- Students in the thesis option who have a minimum of two years' prior full-time social work experience are eligible to apply to take an additional 1.0 elective FCE in place of the Year 2 practicum. Workplace supervision must have occurred with an MSW supervisor; requests for substitution must be reviewed and approved by the Faculty Assessment Committee.
- Students who choose the thesis option may require at least one additional academic session to complete the program.

MSW Two-Year Program

- Students in the MSW two-year program must complete a total of 8.5 FCEs including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), elective coursework (1.0 FCE), and practica (1.5 FCEs). The practicum (0.5 FCE) is required for students in Year 1 and is offered in the Winter session; the Year 2 practicum (September to April) is equivalent to 1.0 FCE and must be in the student's field.
- Thesis option: students in the MSW two-year program must complete a total of 8.5 FCEs, including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), practica (1.5 FCEs), and a thesis (1.0 FCE).
- Plus students can then elect to take one of three choices:
  - SWK4622H Social Work Practice in Health and SWK4604H Social Work Practice in Mental Health
  - SWK4622H Social Work Practice in Health and one of the following courses:
    - SWK4003H Narrative Therapy
    - SWK4615H Cognitive Behavioural Theories and Clinical Social Work Practice
    - SWK4632H Advanced Social Work Practice in Health
  - SWK4604H Social Work Practice in Mental Health and one of the following courses:
    - SWK4003H Narrative Therapy
    - SWK4615H Cognitive Behavioural Theories and Clinical Social Work Practice
    - SWK4631H Advanced Social Work Practice in Mental Health

MSW Advanced-Standing Option

Students in the advanced-standing option:
- Will normally complete a total of 4.5 FCEs including required coursework (2.5 FCEs), elective coursework (1.0 FCE), and a practicum (1.0 FCE) in their field.
- Thesis option: must complete a total of 4.5 FCEs including required coursework (2.5 FCEs), a practicum (1.0 FCE), and a thesis (1.0 FCE).
- Then elect to take one of three choices:
  - SWK4622H Social Work Practice in Health and SWK4604H Social Work Practice in Mental Health
  - SWK4622H Social Work Practice in Health and one of the following courses:
    - SWK4003H Narrative Therapy
    - SWK4615H Cognitive Behavioural Theories and Clinical Social Work Practice
    - SWK4632H Advanced Social Work Practice in Health
  - SWK4637H Special Topics in Health Social Work
  - SWK4604H Social Work Practice in Mental Health and one of the following courses:
    - SWK4003H Narrative Therapy
    - SWK4615H Cognitive Behavioural Theories and Clinical Social Work Practice
    - SWK4631H Advanced Social Work Practice in Mental Health
  - SWK4636H Special Topics in Mental Health Social Work
  - SWK4640H Special Topics in Mental Health Social Work 2
  - SWK4647H Family-Centred Practices in Addictions and Mental Health
  - SWK4803H Special Studies III
- Must complete the Year 1 compulsory courses. SWK4510H Research for Evidence-Based Social Work Practice must be completed before taking any of the research courses in the field.
- Must complete SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit) during the Fall session of Year 1.
- Are expected to complete the requirements in three sessions (one year).

Program Length

- 6 sessions two-year full-time (typical registration sequence: F/W/S/F/W/S);
- 3 sessions advanced-standing full-time (typical registration sequence: F/W);
- 6 sessions advanced-standing part-time

Time Limit

- 3 years full-time;
- 6 years part-time

Year 2 Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK4412H</td>
<td>The Context of Mental Health and Health Practice</td>
</tr>
<tr>
<td>SWK4511H</td>
<td>Practice-Based Research in Mental Health and Health</td>
</tr>
<tr>
<td>SWK4702Y</td>
<td>Social Work Practicum II (full credit)</td>
</tr>
</tbody>
</table>
Social Work: Social Work MSW; Field: Human Services Management and Leadership

Master of Social Work (Field: Human Services Management and Leadership)

The not-for-profit sector is primarily responsible for the delivery of social services in Canada. There is a critical need for people who are able to assume leadership roles in the community social services sector.

Minimum Admission Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Social Work’s additional admission requirements stated below.
- Applicants with an appropriate bachelor's degree with a minimum average equivalent to at least a University of Toronto mid-B in the final year of full-time study from a recognized university are admitted to a two-year MSW program.
- Applicants who hold a BSW degree with mid-B average in the final year of full-time study, or its equivalent from a recognized university, may be eligible for the MSW advanced-standing option.
- All applicants must have included 3.0 full-course equivalents (FCEs) in social science courses, including 0.5 FCE in research methodology. A mid-B is strongly recommended in the research methodology course.
- Experience (voluntary or paid) in the social services or related field and knowledge of critical social issues are recommended. Suitability for professional practice in social work will also be considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Advanced-standing applicants must declare their field and a preference for full-time or part-time studies at the time of application.
- Initial admission inquiries should be made directly to the Faculty of Social Work. Please note that applicants holding the minimum admission requirements are not guaranteed admission. All admission decisions are final.

Program Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- All MSW students: Agencies that offer practica will likely require a Vulnerable Sector Verification prior to commencing the practicum. Failure to pass this check will jeopardize a student's entry to practicum. Cost and time factors are associated with the Vulnerable Sector Verification. A delay in obtaining the results can impact the start time of a student's practicum. In anticipation of this requirement for the practicum, it is strongly recommended that students begin this process early.
- In the event that a student does not complete two or more required courses, or receives an FZ (inadequate) after repeating any course, normally steps will be taken by the Faculty to recommend the termination of the student’s registration.

Year 1 Compulsory Courses

Year 1 MSW students in the Human Services Management and Leadership field must complete the required courses below:

- Eight half courses (4.0 FCEs).
- SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit), to be taken in the Fall session.
- The Year 1 practicum (0.5 FCE).

<table>
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<tr>
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<tbody>
<tr>
<td>SWK1999H</td>
<td>Equity, Diversity, and Inclusion Workshop (Credit/No Credit)</td>
</tr>
<tr>
<td>SWK4102H</td>
<td>Social Policy and Social Welfare in the Canadian Context</td>
</tr>
<tr>
<td>SWK4103H</td>
<td>Elements of Social Work Practice</td>
</tr>
<tr>
<td>SWK4105H</td>
<td>Social Work Practice Laboratory</td>
</tr>
<tr>
<td>SWK4107H</td>
<td>Foundations of Social Work: Knowledge, Theory, and Values that Inform Practice</td>
</tr>
<tr>
<td>SWK4510H</td>
<td>Research for Evidence-Based Social Work Practice (SWK4510H must be completed before taking any of the research courses in the field)</td>
</tr>
<tr>
<td>SWK4602H</td>
<td>Social Work Practice with Groups</td>
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<tr>
<td>SWK4605H</td>
<td>Social Work Practice with Individuals and Families</td>
</tr>
<tr>
<td>SWK4654H</td>
<td>Social Work Practice in Organizations and Communities</td>
</tr>
<tr>
<td>SWK4701H*</td>
<td>Social Work Practicum I (prerequisite: SWK4105H completed prior to beginning practicum)</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

- Students in the MSW two-year program must declare their field by mid-February of Year 1.
- Note: Advanced-standing students normally complete the program in one year of full-time study or two years of part-time study.
- The MSW thesis option provides hands-on research experience. The thesis is an independent piece of research intended to enable students to develop and apply research skills within the context of social work practice and to write a graduate thesis of publishable quality.
Note: The thesis option is available to a limited number of students — maximum three in any given year — whose proposed research must be approved by a review panel and by the Associate Dean, Research.

- Students in the thesis option who have a minimum of two years' prior full-time social work experience are eligible to apply to take an additional 1.0 elective FCE in place of the Year 2 practicum. Workplace supervision must have occurred with an MSW supervisor; requests for substitution must be reviewed and approved by the Faculty Assessment Committee.

- Students who choose the thesis option may require at least one additional academic session to complete the program.

MSW Two-Year Program

- Students in the MSW two-year program must complete a total of 8.5 FCEs including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), elective coursework (1.0 FCE), and practica (1.5 FCEs). The practicum (0.5 FCE) is required for students in Year 1 of the MSW two-year program and is offered in the Winter session; the Year 2 practicum (September to April) is equivalent to 1.0 FCE and must be in the student's field.

- Thesis option: students in the MSW two-year program must complete a total of 8.5 FCEs including coursework (4.0 FCEs), required field coursework (2.0 FCEs), practica (1.5 FCEs), and a thesis (1.0 FCE).

Year 2 Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK4425H</td>
<td>Human Services Management and Leadership</td>
</tr>
<tr>
<td>SWK4426H</td>
<td>Financial Management and Leadership in Human Service Organizations</td>
</tr>
<tr>
<td>SWK4427H</td>
<td>Human Resource Management in Human Service Organizations</td>
</tr>
<tr>
<td>SWK4515H</td>
<td>Research and Quality Improvement in Human Service Organizations</td>
</tr>
<tr>
<td>SWK4702Y</td>
<td>Social Work Practicum II (full credit)</td>
</tr>
</tbody>
</table>

MSW Advanced-Standing Option

Students in the advanced-standing option:

- Will normally complete a total of 4.5 FCEs including required coursework (2.5 FCEs), elective coursework (1.0 FCE), and a practicum (1.0 FCE) in their field.
- Thesis option: must complete a total of 4.5 FCEs including required coursework (2.5 FCEs), a practicum (1.0 FCE), and a thesis (1.0 FCE).
- Must complete the Year 1 compulsory courses. SWK4510H Research for Evidence-Based Social Work Practice must be completed before taking any of the research courses in the field.
- Must complete SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit) during the Fall session of Year 1.

- Are expected to complete the requirements in three sessions (one year).

Program Length

6 sessions two-year full-time (typical registration sequence: F/W/S/F/W/S); 3 sessions advanced-standing full-time (typical registration sequence: F/W/S); 6 sessions advanced-standing part-time

Time Limit

3 years full-time; 6 years part-time

Social Work: Social Work MSW; Field: Indigenous Trauma and Resiliency

Master of Social Work (Field: Indigenous Trauma and Resiliency)

The Indigenous Trauma and Resiliency field integrates theory and research drawn from social work and Indigenous knowledge for application in the delivery of services and interventions for Indigenous populations. There is an emphasis on the First Nations, Métis, and Inuit peoples of Canada and other Indigenous groups. The curriculum is offered through online and intensive classroom formats.

Initial admission inquiries should be made directly to the Factor-Inwentash Faculty of Social Work. Applicants holding the minimum admission requirements are not guaranteed admission. All admission decisions are final.

This field is offered only as a two-year, full-time program.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Factor-Inwentash Faculty of Social Work's additional admission requirements stated below.
- Applicants with an appropriate bachelor's degree or Bachelor of Social Work (BSW) degree with a minimum average equivalent to at least a University of Toronto mid-B in the final year of full-time study from a recognized university can be admitted to this field.
- All applicants must have completed 3.0 full-course equivalents (FCEs) in social science courses, including 0.5 FCE in research methodology. A mid-B is strongly recommended in the research methodology course.
- Three years of experience (voluntary or paid) in the social services or related field and knowledge of critical social issues. Suitability for professional practice in social work will also be considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
Applicants may be asked to complete an admissions interview in person or virtually as part of the application process.

Program Requirements

- Students must complete 7.5 FCEs as follows:
  - Year 1: seven half courses (3.5 FCEs)
  - Year 2:
    - six half courses (3.0 FCEs) and
    - a 450-hour summer practicum (1.0 FCE).
- Students entering the program with BA or BASc courses must complete an additional 1.0 FCE (two half courses SWK4102H and SWK4106H) in Year 1.
- Students are expected to submit a Vulnerable Sector Verification by June 1 prior to the course registration. It is strongly recommended that students begin this process early.
- The MSW thesis option provides hands-on research experience. The thesis is an independent piece of research intended to enable students to develop and apply research skills within the context of social work practice and to write a graduate thesis of publishable quality. Note: the thesis option is available to a limited number of students — maximum three in any given year — whose proposed research must be approved by a review panel and by the Associate Dean, Research.
- Students in the thesis option who have a minimum of two years' prior full-time social work experience are eligible to apply to take an additional 1.0 elective FCE in place of the Year 2 practicum. Workplace supervision must have occurred with an MSW supervisor; requests for substitution must be reviewed and approved by the Faculty Assessment Committee.
- Students who choose the thesis option may require at least one additional academic session to complete the program.
- Students in the thesis option must successfully complete a total of 8.5 FCEs, including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), practica (1.5 FCEs), and a thesis (1.0 FCE).

Year 1 Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK4101H</td>
<td>Understanding Historical and Multigenerational Trauma</td>
</tr>
<tr>
<td>SWK4102H</td>
<td>Social Policy and Social Welfare in the Canadian Context</td>
</tr>
<tr>
<td>SWK4106H</td>
<td>Social Work Ethics and Indigenous Communities</td>
</tr>
<tr>
<td>SWK4108H</td>
<td>Sexual Abuse, Sexual Assault, and the Family</td>
</tr>
<tr>
<td>SWK4109H</td>
<td>Trauma and Human Development</td>
</tr>
<tr>
<td>SWK4110H</td>
<td>Trauma and Addiction</td>
</tr>
<tr>
<td>SWK4111H</td>
<td>Trauma-Informed Schools, Community Intervention, and the Healing Power of Ceremony</td>
</tr>
<tr>
<td>SWK4510H</td>
<td>Research for Evidence-Based Social Work Practice</td>
</tr>
</tbody>
</table>

Year 2 Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK4517H</td>
<td>Indigenous and Participatory Research Methods</td>
</tr>
<tr>
<td>SWK4703Y</td>
<td>MSW ITR Practicum III</td>
</tr>
<tr>
<td>SWK4901H</td>
<td>Facilitating Training in Indigenous Communities</td>
</tr>
<tr>
<td>SWK4902H</td>
<td>Indigenous Perspectives on Grief, Loss, and Unattended Sorrow</td>
</tr>
<tr>
<td>SWK4903H</td>
<td>Trauma-Informed Care, Organizations, Supervision, and Leadership</td>
</tr>
<tr>
<td>SWK4904H</td>
<td>Working with Couples and Families in Indigenous Context</td>
</tr>
<tr>
<td>SWK4905H</td>
<td>Seeing the Need, Creating the Solution</td>
</tr>
</tbody>
</table>

Program Length
6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Time Limit
3 years full-time

Social Work: Social Work MSW; Field: Social Justice and Diversity

Master of Social Work (Field: Social Justice and Diversity)

Reducing inequalities and marginalization is in line with professional social work’s agenda of anti-oppression and social justice. Social work is committed to working with and on behalf of people from disenfranchised backgrounds.

Minimum Admission Requirements

MSW Two-Year Program and MSW Advanced-Standing Option

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Faculty of Social Work’s additional admission requirements stated below.
- Applicants with an appropriate bachelor's degree with a minimum average equivalent to at least a University of Toronto mid-B in the final year of full-time study from a recognized university are admitted to a two-year MSW program.
- Applicants who hold a BSW degree with mid-B average in the final year of full-time study, or its equivalent from a
recognized university, may be eligible for the MSW advanced-standing option.

- All applicants must have included 3.0 full-course equivalents (FCEs) in social science courses, including 0.5 FCE in research methodology. A mid-B is strongly recommended in the research methodology course.
- Experience (voluntary or paid) in the social services or related field and knowledge of critical social issues are recommended. Suitability for professional practice in social work will also be considered.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements. Advanced-standing applicants must declare their field and a preference for full-time or part-time studies at the time of application.
- Initial admission inquiries should be made directly to the Faculty of Social Work. Please note that applicants holding the minimum admission requirements are not guaranteed admission. All admission decisions are final.

Program Requirements

**MSW Two-Year Program and MSW Advanced-Standing Option**

- **All MSW students**: Agencies that offer practica will likely require a Vulnerable Sector Verification prior to commencing the practicum. Failure to pass this check will jeopardize a student's entry to practicum. Cost and time factors are associated with the Vulnerable Sector Verification. A delay in obtaining the results can impact the start time of a student's practicum. In anticipation of this requirement for the practicum, it is strongly recommended that students begin this process early.

- In the event that a student does not complete two or more required courses, or receives an FZ (inadequate) after repeating any course, normally steps will be taken by the Faculty to recommend the termination of the student's registration.

**Year 1 Compulsory Courses**

Year 1 MSW students in the Social Justice and Diversity field must complete the required courses below:

- Eight half courses (4.0 FCEs).
- SWK1999H *Equity, Diversity, and Inclusion Workshop* (0.0 FCE; Credit/No Credit), to be taken in the Fall session.
- The Year 1 practicum (0.5 FCE).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK1999H</td>
<td>Equity, Diversity, and Inclusion Workshop (Credit/No Credit)</td>
</tr>
<tr>
<td>SWK4102H</td>
<td>Social Policy and Social Welfare in the Canadian Context</td>
</tr>
<tr>
<td>SWK4103H</td>
<td>Elements of Social Work Practice</td>
</tr>
<tr>
<td>SWK4105H</td>
<td>Social Work Practice Laboratory</td>
</tr>
</tbody>
</table>

**MSW Two-Year Program**

- Students must complete a total of **8.5 FCEs** including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), elective coursework (1.0 FCE), and practica (1.5 FCEs). The practicum (0.5 FCE) is required for students in Year 1 and is offered in the Winter session; the Year 2 practicum (September to April) is equivalent to 1.0 FCE and must be in the student's field.

- **Thesis option**: students must complete a total of **8.5 FCEs**, including core MSW coursework (4.0 FCEs), required field coursework (2.0 FCEs), practica (1.5 FCEs), and a thesis (1.0 FCE).
Compulsory Courses — Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK4304H</td>
<td>Social Work Policy Practice and Advocacy in the Context of Neoliberal Globalization</td>
</tr>
<tr>
<td>SWK4306H</td>
<td>Theoretical Approaches to Defining Social Injustice and Engaging in Social Change</td>
</tr>
<tr>
<td>SWK4512H</td>
<td>Research Knowledge for Social Justice</td>
</tr>
<tr>
<td>SWK4606H</td>
<td>Diversity, Access, and Equity in Social Work Practice</td>
</tr>
<tr>
<td>SWK4702Y</td>
<td>Social Work Practicum II (full credit)</td>
</tr>
</tbody>
</table>

MSW Advanced-Standing Option

Students in the advanced-standing option:

- Will normally complete a total of 4.5 FCEs including required coursework (2.5 FCEs), elective coursework (1.0 FCE), and a practicum (1.0 FCE) in their field.
- Thesis option: must complete a total of 4.5 FCEs including required coursework (2.5 FCEs), a practicum (1.0 FCE), and a thesis (1.0 FCE).
- Must complete the Year 1 compulsory courses. SWK4510H Research for Evidence-Based Social Work Practice must be completed before taking any of the research courses in the field.
- Must complete SWK1999H Equity, Diversity, and Inclusion Workshop (0.0 FCE; Credit/No Credit) during the Fall session of Year 1.
- Are expected to complete the requirements in three sessions (one year).

Program Length

6 sessions two-year full-time (typical registration sequence: F/W/S/F/W/S);
3 sessions advanced-standing full-time (typical registration sequence: F/W/S);
6 sessions advanced-standing part-time

Time Limit

3 years full-time;
6 years part-time

Social Work: Social Work MSW Courses

Elective Courses

Courses are offered in various areas of social work practice. The choice of electives in any given year is contingent on available faculty resources. Not every course is given in any one year. Please consult the Faculty of Social Work website.
Social Work: Social Work PhD

Doctor of Philosophy

Program Description

The PhD program has a tradition of scholarly excellence based on the quality of the research knowledge, competence, and output of its faculty. Doctoral graduates are practice leaders and faculty members throughout the world. Enrolment in the Faculty of Social Work entails adherence to the standards of professional behaviour for the social work profession set forth in the Social Work Code of Ethics of the Canadian Association of Social Workers.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the graduate unit's additional admission requirements stated below.
- Master of Social Work degree or an equivalent master's degree with at least a B+ standing from an accredited program in a recognized university.
- Competency in basic statistical methods at an introductory level.
- Educational and professional experience that indicates a capacity to undertake research-oriented post-graduate work.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
- Initial admission inquiries should be made directly to the Faculty of Social Work. The application deadline for the PhD program is January 10. The Faculty of Social Work does not guarantee admission to all applicants who meet its minimum requirements.

Program Requirements

Students must successfully complete a total of 5.5 full-course equivalents (FCEs), generally within two years of registration, as follows:

- **Coursework.**
  - 2.0 FCEs in required research courses:
    - SWK6301H Intermediate Statistics and Data Analysis (0.5 FCE)
    - SWK6302H Epistemology and Social Work Research (0.5 FCE)
    - SWK6307H Designing and Implementing Qualitative Social Work Research (0.5 FCE)
    - SWK6308H Designing and Implementing Quantitative Social Work Research (0.5 FCE)
  - Students may be exempt from these research courses but will substitute alternate elective courses for each exempted course. Note: SWK4506H (0.5 FCE) is a prerequisite for SWK6301H, or an equivalent competency exam must be passed by all incoming students with a grade of A. SWK4506H does not count towards one of the required PhD courses; however, the grade is included in the student's total grade point average calculation.
2.5 FCEs in graduate-level electives, including at least 0.5 FCE from Social Work and at least 0.5 FCE from another graduate unit (with the approval of the PhD Director).

- **Seminar.**
  - SWK7000H Comprehensive Exam Seminar (Credit/No Credit) (0.5 FCE) is required during the Fall session of Year 2.
  - Year 1 PhD students will attend a mandatory Year 1 colloquium during the Winter session (two full days), no credit.

- **Comprehensive exam.**
  - Following completion of at least nine of the above required courses, students must satisfactorily complete SWK8000H Comprehensive Exam (Credit/No Credit) (0.5 FCE) during the Winter or Summer session of Year 2.
  - Following completion of the coursework, seminar, and comprehensive exam, students must satisfactorily complete:
    - a thesis proposal and oral thesis proposal defence,
    - a thesis,
    - which can be in the traditional thesis format, which constitutes a distinct contribution to knowledge in the field of social work, or
    - a three-paper option based on the same fundamental principles of independent student work and scholarly rigour. The three-paper dissertation option allows students to write three related papers in a given topic or area of interest in which they have conducted research as required for the PhD program.
    - and finally, an oral thesis defence.

- **Students are expected to complete their coursework, comprehensive exam, and have their thesis proposal approved by the end of August of Year 3. The research, writing, and Doctoral Final Oral Examination of the thesis are typically completed by the end of Year 5.**

- **Students must have an adequate knowledge of a language other than English if an additional language is deemed essential for satisfactory completion of research for the thesis. The Faculty is responsible for ensuring that an acceptable certificate of language competence is deposited with the School of Graduate Studies.**

- **In the event that a student does not complete two or more required courses (excluding SWK8000H Comprehensive Exam), or receives an FZ (inadequate) after repeating any course, the Faculty will take steps to recommend the termination of the student's registration.**

- **In the event that a student receives an NCR (No Credit) for SWK8000H Comprehensive Exam, the Faculty will take steps to recommend the termination of the student's registration.**

### Social Work: Social Work PhD Courses

#### Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK6301H</td>
<td>Intermediate Statistics and Data Analysis (prerequisite: SWK4506H or pass a competency exam)</td>
</tr>
<tr>
<td>SWK6302H</td>
<td>Epistemology and Social Work Research</td>
</tr>
<tr>
<td>SWK6307H</td>
<td>Designing and Implementing Qualitative Social Work Research</td>
</tr>
<tr>
<td>SWK6308H</td>
<td>Designing and Implementing Quantitative Social Work Research</td>
</tr>
<tr>
<td>SWK7000H</td>
<td>Comprehensive Exam Seminar (Credit/No Credit)</td>
</tr>
<tr>
<td>SWK8000H</td>
<td>Comprehensive Exam (Credit/No Credit)</td>
</tr>
</tbody>
</table>

#### Recommended Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK4506H</td>
<td>Applied Quantitative Data Analysis (prerequisite for SWK6301H; students who pass a competency exam will be exempted from taking SWK4506H)</td>
</tr>
</tbody>
</table>

#### Elective Courses

The choice of electives in any given year is contingent on available faculty resources. Not every course is available in any one year. Please consult the Faculty of Social Work website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK6006H</td>
<td>Theory and Practice of Teaching Social Work</td>
</tr>
<tr>
<td>SWK6007H</td>
<td>Advanced Qualitative Research Methods in Social Work</td>
</tr>
<tr>
<td>SWK6101H</td>
<td>Critical Evaluation of Social Work Practice Theory</td>
</tr>
</tbody>
</table>

These courses are designed to provide seminars or tutorials according to the particular interests of students enrolled:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK6501H</td>
<td>Special Studies 1</td>
</tr>
<tr>
<td>SWK6502H</td>
<td>Special Studies 2</td>
</tr>
<tr>
<td>SWK6503H</td>
<td>Special Studies 3</td>
</tr>
<tr>
<td>SWK6504H</td>
<td>Special Studies 4</td>
</tr>
</tbody>
</table>

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### Program Length

- **4 years**

### Time Limit

- **6 years**
Sociology

Sociology: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Sociology

MA and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Addiction Studies**
  - Sociology, MA, PhD
- **Aging, Palliative and Supportive Care Across the Life Course**
  - Sociology, MA, PhD
- **Contemporary East and Southeast Asian Studies**
  - Sociology, MA
- **Development Policy and Power**
  - Sociology, MA
- **Diaspora and Transnational Studies**
  - Sociology, MA, PhD
- **Environmental Studies**
  - Sociology, MA, PhD
- **Ethnic, Immigration and Pluralism Studies**
  - Sociology, MA, PhD
- **Food Studies**
  - Sociology, MA, PhD
- **Jewish Studies**
  - Sociology, MA, PhD
- **Sexual Diversity Studies**
  - Sociology, MA, PhD
- **Women and Gender Studies**
  - Sociology, MA, PhD

Overview

The Department of Sociology is consistently the top-ranked sociology department in Canada, with internationally renowned scholars who have an excellent track record for securing research funding, producing outstanding sociological research, and mentoring graduate students extensively. A collegial atmosphere encourages innovation and rigour in research and teaching. The community of scholars includes faculty members, outstanding postdoctoral scholars, and creative and engaged graduate students.

The department’s graduate programs provide exceptional training to students in advanced social research. The focus is on transforming graduate students from consumers of academic research into producers of new sociological knowledge. To that end, there is a strong focus on methodological training; graduate students are integrated thoroughly into the faculty research programs in the department.

Contact and Address

Web: [www.sociology.utoronto.ca](http://www.sociology.utoronto.ca)
Email: sociology.graduate@utoronto.ca or socgrad.assist@utoronto.ca
Telephone: (416) 978-3414
Fax: (416) 978-3963

Department of Sociology
University of Toronto
725 Spadina Avenue
Toronto, Ontario M5S 2J4
Canada

Sociology: Graduate Faculty

Full Members

Adese, Jennifer - BA, BA, MA, PhD
Baber, Zaheer - PhD
Baumann, Shyon - BA, MA, PhD *(Chair)*
Berrey, Ellen - AB, PhD
Berry, Brent - BS, PhD
Boase, Jeffrey - BA, MA, PhD
Bryant, Joseph - BA, MA, PhD
Brym, Robert - BA, MA, PhD
Childress, Clayton - BA, MA, PhD
Choo, Hae Yeon - BA, MA, PhD
Cranford, Cynthia - MA, PhD
Dinovitzer, Ronit - BA, MA, PhD
Erickson, Bonnie - BA, MA, PhD
Erickson, Patricia - BA, MA, PhD
Farah Schwartzman, Luisa - PhD
Fields, Jessica - BA, MA, MA, PhD
Flores, Jerry - BA, MA, MA, PhD
Goodman, Philip - BA, MA, PhD
Green, Adam - BA, MA, MSS, PhD
Hannah-Moffat, Kelly - BA, MA, PhD
Hannigan, John - BA, MA, PhD
Hermer, Joseph - PhD
Hoffman, Steve - BA, PhD
Hsiung, Ping-Chun - PhD
Johnston, Josee - AB, MA, PhD
Kervin, John - BA, PhD
Korteweg, Anna - BA, MA, PhD
Landolt, Patricia - BA, MA, PhD
Lee, Jooyoung - BA, MA, PhD
Lee, Yoonkyung - BPhil, MA, PhD
Leschziner, Vanina - BA, AM, DPhil
Levi, Ron - BCL, LLB, LLM, SJD
Liu, Sida - LLB, PhD
Magee, William - PhD
Maghbouleh, Neda - BA, MA, PhD
Maurutto, Paula - DPhil
Miles, Andrew - BA, MA, PhD
Milkie, Melissa - BA, MA, PhD *(Graduate Chair)*
Mullen, Ann Louise - BA, MA, PhD
Peng, Ito - BSc, BSW, MA, PhD
Plys, Kristin Victoria - BA, MA, MPH, PhD
Salem, Rania Hatem - BSc, MSS, PhD
Sarkar, Mahua - BA, MA, PhD
Schafer, Markus - BA, MS, PhD
Schieman, Scott - BA, MA, PhD
Schneiderhan, Erik - PhD
Siddiqi, Arjumand - ScD
Silver, Daniel - BA, MA, PhD
Sociology. It provides extensive background and knowledge valuable for a number of rewarding careers in the public and private sectors. The program also builds a strong foundation in sociological training for those who plan to pursue a doctoral degree in Sociology.

Students have the option of completing the master's degree in one of two ways:

- Coursework (the preferred option for those proceeding to the PhD).
- Coursework plus research paper.

Students can take the program on a part-time or full-time basis.

### Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Sociology's additional admission requirements stated below.
- An appropriate bachelor's degree with 5.0 full-course equivalents (FCEs) in sociology, with an overall B+ average in each of the last two years of post-secondary education. Those with excellent grades but whose preparation is insufficient will be required to take additional courses.
- Applicants are also expected to have acquired basic research and statistical skills.
- Admission decisions are based on grades and indications of superior qualifications such as letters of recommendation and a sample of the applicant's work.
- In addition to the School of Graduate Studies' online application form, applicants must submit:
  - Two letters of reference from instructors or research supervisors.
  - A paper, including summary, which the student feels represents his or her best work.
  - A one-page, single-spaced typed statement of interest indicating research interests, research experience, and reasons for applying to study sociology at the University of Toronto.
- Proficiency in the English language, demonstrated by all applicants educated outside Canada whose primary language is not English. See General Regulations section 4.3 English-Language Proficiency for minimum TOEFL (Test of English as a Foreign Language and TWE (Test of Written English) scores required.

### Program Requirements

- **Coursework Option**: the preferred option for those proceeding to the PhD
  - 4.0 FCEs or eight half courses including:
    - SOC6001H Classical Sociological Theory I
    - SOC6302H Statistics for Sociologists
    - SOC6712H Qualitative Methods I.
- **Coursework Plus Research Paper Option**
  - 3.0 FCEs or six half courses including:
    - SOC6001H Classical Sociological Theory I
    - SOC6302H Statistics for Sociologists
    - SOC6712H Qualitative Methods I.
  - A research paper.
- Regardless of option, the MA program is completed in 12 months.
The choice of courses in all programs must be approved by the department.

A maximum of 0.5 FCE in reading courses may be counted towards the degree requirements.

A maximum of 0.5 FCE in elective courses taken outside the department may be counted towards the degree requirements unless approval of the Graduate Coordinator is obtained.

Students must maintain a B average to be recommended for the MA degree.

Program Length

3 sessions full-time (typical registration sequence: F/W/S);
15 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Sociology: Sociology PhD

Doctor of Philosophy

Program Description

The PhD program provides training in conducting theoretically rich and methodologically sophisticated sociological research. Through the program, students design and carry out research projects, present their work at professional conferences, and author scholarly publications. The program is designed to provide both a broad knowledge of the discipline and specialized methodological and subject matter expertise.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate MA or 2) direct entry after completing a bachelor’s degree.

PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Sociology's additional admission requirements stated below.
- The normal requirement is completion of the University of Toronto MA, with at least an A– standing. All students must demonstrate that their master's degree program included coursework equivalent to Classical Social Theory, Social Statistics, and Qualitative Methods I. Some students may be required to take prescribed additional courses.
- Admission decisions are based on grades and indications of superior qualifications such as letters of recommendation and a sample of the applicant's work.
- In addition to the School of Graduate Studies' online application form, applicants must submit:
  - Two letters of reference from instructors or research supervisors.
  - A paper, including summary, which the student feels represents his or her best work.
  - A one-page, single-spaced typed statement of interest indicating research interests, research experience, and reasons for applying to study sociology at the University of Toronto.
  - Proficiency in the English language, demonstrated by all applicants educated outside Canada whose primary language is not English. See General Regulations section 4.3 English-Language Proficiency for minimum TOEFL (Test of English as a Foreign Language and TWE (Test of Written English) scores required.

Program Requirements

- Coursework. Students must complete 4.5 full-course equivalents (FCEs) including:
  - SOC6101H Contemporary Sociological Theory
  - SOC6707H Intermediate Data Analysis
  - SOC6511H Professional Development Seminar I
  - SOC6711Y Research Practicum
  - If a student has already taken these courses at the graduate level, other courses will be substituted to obtain the 4.5 FCEs total.
  - A maximum of 0.5 FCE in reading courses may be counted towards the degree requirements.
  - A maximum of 0.5 FCE in elective courses taken outside the department may be counted towards the degree requirements unless approval of the Graduate Coordinator is obtained.
- An average of at least B+ is required in order to be eligible to continue in the following year of any program. Failure in any course (that is, less than a B-) will require a review of the student's total program by the department.
- Doctoral students must complete SOC6511H Professional Development Seminar I (Credit/No Credit). This seminar consists of a series of workshops designed to guide students in their graduate school career and beyond. SOC6511H must be completed in the Fall session of Year 1.
- Two comprehensive examinations, which must be completed by the end of Year 2.
  - Comprehensive exams are offered in each of the 12 areas of study: Computational and Quantitative Methods; Gender; Global Migration; Health and Mental Health; Political Sociology; Qualitative Methods; Race, Ethnicity, Indigeneity; Social Networks; Sociology of Crime and Law; Sociology of Culture; Theory; and Work, Stratification, and Markets.
  - If a student fails a comprehensive exam, the student has one attempt to rewrite the exam. The rewrite must occur in the next available exam session.
- Submission of a written thesis proposal and its successful oral defence before a supervisory committee consisting of three faculty members. If a student should fail, the student is permitted one additional opportunity to defend a revised thesis proposal.
- University policy requires that students complete all their non-thesis requirements (coursework, comprehensive examinations, thesis proposal, and language requirement if applicable) by the end of Year 3.
- Preparation of an original PhD thesis, which must be defended at a Doctoral Final Oral Examination.
- Candidates must have an adequate knowledge of a language other than English if an additional language is deemed essential for satisfactory completion of research for the thesis.
• Two years of **residence**, whereby students must be on campus and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

**Program Length**

4 years

**Time Limit**

6 years

**PhD Program (Direct-Entry)**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Sociology's additional admission requirements stated below.
- The department may recommend admission directly after completion of an appropriate bachelor's degree. Direct entry of this kind will only be recommended for outstanding students who have provided a clear and detailed plan for thesis research.
- Admission decisions are based on grades and indications of superior qualifications such as letters of recommendation and a sample of the applicant's work.
- In addition to the School of Graduate Studies' online application form, applicants must submit:
  - Two letters of reference from instructors or research supervisors.
  - A paper, including summary, which the student feels represents his or her best work.
  - A one-page, single-spaced typed statement of interest indicating research interests, research experience, and reasons for applying to study sociology at the University of Toronto.
  - Proficiency in the English language, demonstrated by all applicants educated outside Canada whose primary language is not English. See General Regulations section 4.3 English-Language Proficiency for minimum TOEFL (Test of English as a Foreign Language and TWE (Test of Written English) scores required.

**Program Requirements**

- **Coursework.** Students must complete **6.0 full-course equivalents (FCEs)** including:
  - SOC6001H Classical Sociological Theory I
  - SOC6101H Contemporary Sociological Theory
  - SOC6302H Statistics for Sociologists
  - SOC6511H Professional Development Seminar I
  - SOC6707H Intermediate Data Analysis
  - SOC6711Y Research Practicum
  - SOC6712H Qualitative Methods I.
  - A maximum of 0.5 FCE in reading courses and 0.5 FCE in elective courses taken outside the department may be counted towards the degree requirements.
- An average of **at least B+** is required in order to be eligible to continue in the following year of any program. Failure in any course (that is, less than a B–) will require a review of the student's total program by the department.
- Doctoral students must complete SOC6511H Professional Development Seminar I (Credit/No Credit). This seminar consists of a series of workshops designed to guide students in their graduate school career and beyond. SOC6511H must be completed in the Fall session of Year 1.
- Two **comprehensive examinations**, which must be completed by the end of Year 2.
  - Comprehensive exams are offered in each of the 12 areas of study: Computational and Quantitative Methods; Gender; Global Migration; Health and Mental Health; Political Sociology; Qualitative Methods; Race, Ethnicity, Indigeneity; Social Networks; Sociology of Crime and Law; Sociology of Culture; Theory; and Work, Stratification, and Markets.
  - If a student fails a comprehensive exam, the student has one attempt to rewrite the exam. The rewrite must occur in the next available exam session.
- Submission of a written **thesis proposal** and its successful oral defence before a supervisory committee consisting of three faculty members. If a student should fail, the student is permitted one additional opportunity to defend a revised thesis proposal.
- University policy requires that students complete all their non-thesis requirements (coursework, comprehensive examinations, thesis proposal, and language requirement if applicable) by the end of Year 3.
- Preparation of an original **PhD thesis**, which must be defended at a Doctoral Final Oral Examination.
- Candidates must have an adequate knowledge of a **language other than English** if an additional language is deemed essential for satisfactory completion of research for the thesis.
- Two years of **residence**, whereby students must be on campus and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

**Program Length**

5 years

**Time Limit**

7 years

**Sociology: Sociology MA, PhD Courses**

For details on course offerings, check with the departmental graduate office.

**Theory and Methods of Sociology — Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC6001H</td>
<td>Sociological Theory I</td>
</tr>
<tr>
<td>SOC6101H</td>
<td>Sociological Theory II</td>
</tr>
<tr>
<td>SOC6201H</td>
<td>Sociological Theory III</td>
</tr>
</tbody>
</table>
### Health and Mental Health

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC6022H</td>
<td>Sociology of Health</td>
</tr>
<tr>
<td>SOC6023H</td>
<td>Sociology of Mental Health</td>
</tr>
<tr>
<td>SOC6024H</td>
<td>Special Topics in Health</td>
</tr>
<tr>
<td>SOC6122H</td>
<td>Sociology of Mental Health II</td>
</tr>
<tr>
<td>SOC6126H</td>
<td>The Social Ecology of Health</td>
</tr>
</tbody>
</table>

### Networks and Community

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC6008H</td>
<td>Network Analysis I</td>
</tr>
<tr>
<td>SOC6108H</td>
<td>Network Analysis II</td>
</tr>
<tr>
<td>SOC6214H</td>
<td>Sociology of Urbanization</td>
</tr>
<tr>
<td>SOC6314H</td>
<td>Community</td>
</tr>
<tr>
<td>SOC6414H</td>
<td>Urban Organization</td>
</tr>
</tbody>
</table>

### Areas of Specialization

#### Colonialism, Racialization, Indigeneity

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC6022H</td>
<td>Sociology of Health</td>
</tr>
<tr>
<td>SOC6023H</td>
<td>Sociology of Mental Health</td>
</tr>
<tr>
<td>SOC6024H</td>
<td>Special Topics in Health</td>
</tr>
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#### Political Sociology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOC6010H</td>
<td>Political Sociology I</td>
</tr>
<tr>
<td>SOC6110H</td>
<td>Political Sociology II</td>
</tr>
<tr>
<td>SOC6210H</td>
<td>Political Sociology III</td>
</tr>
<tr>
<td>SOC6014H</td>
<td>Environmental Sociology I</td>
</tr>
<tr>
<td>SOC6125H</td>
<td>Theories of Social Change</td>
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#### Gender and Family

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<th>Course Title</th>
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<tbody>
<tr>
<td>SOC6017H</td>
<td>Sociology of Families I</td>
</tr>
<tr>
<td>SOC6019H</td>
<td>Gender Relations I</td>
</tr>
<tr>
<td>SOC6119H</td>
<td>Gender Relations II</td>
</tr>
<tr>
<td>SOC6219H</td>
<td>Gender Relations III</td>
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#### Sociology of Crime and Law

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CRI3140H</td>
<td>Special Topics in Criminology and Sociolegal Studies</td>
</tr>
<tr>
<td>SOC6006H</td>
<td>Sociology of Crime and Law: Criminology</td>
</tr>
<tr>
<td>SOC6106H</td>
<td>Sociology of Crime and Law II: Sociology of Law</td>
</tr>
<tr>
<td>SOC6206H</td>
<td>Sociology of Crime and Law III: Punishment</td>
</tr>
<tr>
<td>SOC6306H</td>
<td>Advanced Topics in Sociology of Crime and Law I</td>
</tr>
<tr>
<td>SOC6406H</td>
<td>Advanced Topics in Sociology of Crime and Law II</td>
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#### Global Migration

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<tbody>
<tr>
<td>SOC6002H</td>
<td>Immigration I</td>
</tr>
<tr>
<td>SOC6003H</td>
<td>Immigration II</td>
</tr>
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*Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOC6506H</td>
<td>Advanced Topics in Sociology of Crime and Law III</td>
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**Sociology of Culture**

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<tr>
<td>SOC6516H</td>
<td>Sociology of Culture</td>
</tr>
<tr>
<td>SOC6517H</td>
<td>Culture and Cognition</td>
</tr>
<tr>
<td>SOC6518H</td>
<td>Culture Industries</td>
</tr>
<tr>
<td>SOC6520H</td>
<td>Special Topics in Sociology of Culture</td>
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**Work, Stratification, and Markets**

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<tr>
<td>SOC6012H</td>
<td>Work, Stratification, and Markets I</td>
</tr>
<tr>
<td>SOC6013H</td>
<td>Social Inequality I</td>
</tr>
<tr>
<td>SOC6112H</td>
<td>Work, Stratification, and Markets II</td>
</tr>
<tr>
<td>SOC6212H</td>
<td>Work, Stratification, and Markets III</td>
</tr>
<tr>
<td>SOC6312H</td>
<td>Work, Stratification, and Markets IV</td>
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**Other Courses**

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<tr>
<td>SOC6021Y</td>
<td>Sociology and the Policy Process in Canada</td>
</tr>
<tr>
<td>SOC6511H</td>
<td>Professional Development Seminar I (Credit/No Credit)</td>
</tr>
<tr>
<td>SOC6811H</td>
<td>Seminar in Teaching (Credit/No Credit)</td>
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**Special Reading Courses**

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<tr>
<td>SOC6015H</td>
<td>A reading course or individual research in an approved field I</td>
</tr>
<tr>
<td>SOC6115H</td>
<td>A reading course or individual research in an approved field II</td>
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**MA Research Paper**

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<th>Course Title</th>
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<tbody>
<tr>
<td>SOC6215Y</td>
<td>MA Research Paper</td>
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Spanish

Spanish: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

Spanish

MA and PhD

- Fields:
  - Hispanic Linguistics;
  - Hispanic Literatures and Cultures

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Book History and Print Culture**
  - Spanish, MA, PhD
- **Diaspora and Transnational Studies**
  - Spanish, MA, PhD
- **Food Studies**
  - Spanish, PhD
- **Women and Gender Studies**
  - Spanish, MA, PhD

Overview

The Department of Spanish offers graduate programs leading to two degrees: Master of Arts and Doctor of Philosophy. MA and PhD students specialize in one of two fields:

- Hispanic Linguistics
- Hispanic Literatures and Cultures.

Applicants are admitted under the General Regulations of the School of Graduate Studies and must also satisfy the department's requirements stated below. In all cases, programs must be approved by the department.

The application process for the **Master of Arts** program is competitive; meeting the minimum standards for admission does not guarantee acceptance.

The admissions process for the **Doctor of Philosophy** program is competitive; it is based on a number of factors in addition to grades. The principal factors include the ability of the department to offer graduate work in the applicant's preferred areas of interest, the availability of appropriate supervisory resources, and the suitability of the applicant in relation to the academic profile and programs of the department. The department does not allow direct entry to the PhD program with a BA, nor does it allow MA students to transfer to the PhD program before the coursework for the MA is completed.

Contact and Address

Web: [www.spanport.utoronto.ca](http://www.spanport.utoronto.ca)
Email: spanport@chass.utoronto.ca or spanish.graduate@utoronto.ca

Telephone: (416) 813-4080
Department of Spanish
University of Toronto
Victoria College
Room 208, 91 Charles Street West
Toronto, Ontario M5S 1K7
Canada

Spanish: Graduate Faculty

Full Members

Alves dos Santos Rato, Anabela - PhD
Antebi, Susan - AM, PhD *(Graduate Coordinator)*
Colantoni, Laura - MA, PhD
Cuervo, M. Cristina - PhD
Davidson, Bob - BA, AM, PhD
Iglesias, Yolanda - BA, BA, MA, PhD
Jagoe, Eva-Lynn - BA, MA, PhD
Munjic, Sanda - BA, AM, PhD
Perez-Leroux, Ana Teresa - MA, PhD *(Chair and Graduate Chair)*
Rivas, Victor - BA, AM, PhD
Rodriguez, Nestor E. - BA, PhD
Rupp, Stephen - BA, MA, MA, MPH, PhD
Sá Carvalho Pereira, Carolina - BA, MA, MPH, PhD
Sarabia, Rosa - BA, PhD

Members Emeriti

Burke, James - BA, MA, PhD
Ellis, Keith A.A. - BA, PhD
Glickman, Robert - AB, AM, PhD
Gulsoy, Joseph - BA, BA, MA, PhD
Leon, Pedro - BA, MA, PhD
Neglia, Erminio - BA, MA, PhD
Percival, Anthony - BA, MA, PhD
Skyrme, Raymond - BA, MA, PhD
Webster, Jill - BA, MA, PhD

Associate Members

Alvarez, Natalie - BA, MA, PhD
Ramirez-Salazar, Manuel - BA, MA, PhD
Steele, Jeffrey - BA, MA, PhD

Spanish: Spanish MA; Field: Hispanic Linguistics

Master of Arts
Program Description

The application process for the Master of Arts program is competitive; meeting the minimum standards for admission does not guarantee acceptance.

The MA program is also available on a part-time basis. Applicants should be aware that part-time students are not eligible for funding.

Field: Hispanic Linguistics

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Spanish's additional admission requirements stated below.
- An appropriate bachelor's degree in Spanish or a cognate discipline from a recognized university with at least a B+ average in the final year or over senior courses.
- Fluency in spoken and written Spanish with a general background in Hispanic linguistics, normally demonstrated through undergraduate coursework.
- Applicants must have completed an introductory 1.0 full-course equivalent (FCE) in linguistics at the undergraduate level (LIN101H and LIN102H, or equivalent). Applicants who have not completed an introductory linguistics course as part of their undergraduate studies must complete LIN101H and LIN102H in the summer directly preceding their admission to the MA program.
- Applicants apply online and should arrange for electronic submission of the following materials:
  - A one-page statement of purpose, outlining the applicant's areas of interest (in English).
  - A sample of written work in Spanish (10 to 12 pages double spaced).
  - Two letters of recommendation, ideally in English (one of the letters must comment on the applicant's fluency in Spanish).
  - A curriculum vitae in English.

Program Requirements

- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs) at the graduate level as follows:
  - 1.5 FCEs in Hispanic Linguistics courses offered by the Department of Spanish.
  - 1.5 FCEs in linguistics courses offered by the Department of Linguistics. Students without a strong background in linguistics are encouraged to select from the following: LIN1028H, LIN1029H, LIN1032H.
  - 0.5 FCE in linguistics courses offered by cognate units, with departmental approval (for example, French Language and Literature; Italian Studies; Linguistics).
  - 0.5 FCE elective in the student’s area of academic interest in consultation with the Graduate Coordinator.

Program Length

2 sessions full-time (typical registration sequence: F/W);
6 sessions part-time

Time Limit

3 years full-time;
6 years part-time

Spanish: Spanish MA; Field: Hispanic Literatures and Cultures

Master of Arts

Program Description

The application process for the Master of Arts program is competitive; meeting the minimum standards for admission does not guarantee acceptance.

The MA program is also available on a part-time basis. Applicants should be aware that part-time students are not eligible for funding.

Field: Hispanic Literatures and Cultures

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Spanish's additional admission requirements stated below.
- An appropriate bachelor's degree in Spanish or a cognate discipline from a recognized university with at least a B+ average in the final year or over senior courses.
- Fluency in spoken and written Spanish with a general background in Hispanic literature, normally demonstrated through undergraduate coursework.
- Applicants apply online and should arrange for electronic submission of the following materials:
  - A one-page statement of purpose, outlining the applicant's areas of interest (in English).
  - A sample of written work in Spanish (10 to 12 pages double spaced).
  - Two letters of recommendation, ideally in English (one of the letters must comment on the applicant's fluency in Spanish).
  - A curriculum vitae in English.

Program Requirements

- Students must select and specialize in one geographic area of study in accordance with distribution requirements for the field:
  - Latin American Literature and Culture.
  - Spanish Peninsular Literature and Culture.
- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs) as follows:
  - 1.5 FCEs in their chosen geographic area of study.
  - 0.5 FCE in the other geographic area of study.
  - For students specializing in Latin American Literature and Culture, an additional 0.5 FCE in pre-1700 literature and culture.
  - 1.5 FCEs in electives in the student’s area of academic interest in consultation with the Graduate Coordinator.
Up to one half course (0.5 FCE) may be taken outside the department from a cognate unit (for example, Comparative Literature; French Language and Literature; History; Linguistics; Medieval Studies; Women and Gender Studies).

Program Length

2 sessions full-time (typical registration sequence: F/W); 6 sessions part-time

Time Limit

3 years full-time; 6 years part-time

Spanish: Spanish PhD; Field: Hispanic Linguistics

Doctor of Philosophy

Program Description

The admissions process for the Doctor of Philosophy program is competitive; it is based on a number of factors in addition to grades. The principal factors include the ability of the department to offer graduate work in the applicant's preferred areas of interest, the availability of appropriate supervisory resources, and the suitability of the applicant in relation to the academic profile and programs of the department.

The department does not allow direct entry to the PhD program with a BA degree. Students in the MA program in Spanish who would like to continue to the PhD must apply through the regular application process; there is no process for direct transfer from MA to PhD.

Field: Hispanic Linguistics

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Spanish's additional admission requirements stated below.
- Master's degree from a recognized university in an appropriate discipline with an average of A– or higher. Applicants apply online and should arrange for electronic submission of the following material:
  - A one-page statement of purpose, outlining the applicant's areas of interest (in English).
  - A sample of written work in Spanish (10 to 12 pages double spaced).
  - Two letters of recommendation, ideally in English (one of the letters must comment on the applicant's fluency in Spanish).
  - A curriculum vitae in English.

Program Requirements

- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs).
  - Course selection is proposed to the Graduate Coordinator, who reviews and approves the plan in consultation with the faculty supervisor to ensure they relate to the proposed research area of the dissertation. Students are expected to select from available courses in Hispanic Linguistics and appropriate courses offered by cognate units (for example, French Language and Literature; Italian Studies; Linguistics). For the purpose of general academic preparation, each student must also choose courses in three other areas of linguistics to be chosen from those offered by the Graduate Department of Spanish (phonetics/phonology; morphology/syntax; sociolinguistics; acquisition [L2 or L1]) or by cognate units (e.g., semantics; psycholinguistics, computational linguistics).
  - 0.5 FCE in Hispanic Literatures and Cultures if not previously completed at the master's level.
  - Students are expected to complete their coursework in Year 1. However, with the approval of the Graduate Coordinator, up to 1.0 FCE may be taken in Year 2.
  - Students must maintain a minimum average of A– in order to remain in good academic standing.
- By March 25 of Year 1, each student must seek approval from the Graduate Advisory Committee for the proposed area of his/her dissertation and the membership of the Field Examination Committee (normally the proposed dissertation supervisor and two other members of the graduate faculty). The Graduate Advisory Committee will respond in writing by May 1 of the same year. The final decision in this matter rests with the Graduate Advisory Committee. In consultation with their committee, students must start their preparation for their field exams in the Summer session of Year 1.
- The **field examination** centres on two subfields: the subfield of the student's proposed dissertation research and a subfield relevant to the student's research and general preparation.
- By October 1 of Year 2, each student must submit to the Graduate Coordinator a brief statement (three to four pages double spaced) concerning the primary and secondary subfields for their field examination and two reading lists (one for each subfield). Each reading list should consist of 25 to 30 items and should include primary and secondary sources. The student's Field Committee will review this material and meet with the student to indicate revisions or additions to the reading lists. The student must file final copies of the two reading lists and statements, as approved by the committee, with the Graduate Coordinator by November 1.
- The **field examination** will take place between January 15 and February 15 of Year 2. It has two parts: a written examination of six hours and an oral examination of two hours. Each part will cover the primary and secondary subfields that the student has prepared.
  - The written examination will consist of three questions. At least one of the questions must be answered in Spanish, and at least one of the questions must be answered in English.
  - The oral examination will follow two weeks after the written exam; it will normally be conducted in Spanish, although English may be used to accommodate committee members from cognate units. The Field Committee will grade the two parts of the examination together, on a credit/non-credit basis. A student who does not receive credit on the first attempt must retake both parts of the examination by May 10.
- Each student must submit a written dissertation proposal to the Graduate Coordinator by April 25 of Year 2 of enrolment in the program. The written proposal articulates the topic, the research questions and methodology of the student's proposed research, and presents a sample of analysis, in approximately 25 pages double spaced. In addition, the proposal should include a bibliography, an outline of the dissertation, and a plan of action which associates the outline with activities of research and writing within a timeline for the three sessions per year. The proposal should be written in the language that the student intends to use in writing the dissertation (Spanish or English).
  - Each student must defend their dissertation proposal (including the outline and plan of action) in a two-hour, public oral examination to be held by May 15, normally conducted in the language of the student's proposal.
  - The student's Field Committee will grade the written proposal and the oral examination on a credit/non-credit basis. A student who does not receive credit on the first attempt must revise and resubmit the dissertation proposal by September 15 of Year 3 of enrolment and retake the oral examination on the proposal by October 15 of that year.
- **Language requirements** must be fulfilled before registering for Year 4. Each student must demonstrate a reading knowledge of French and of a third non-English language relevant to their area of research. These language requirements may be satisfied by passing the appropriate reading knowledge courses or examinations offered by the corresponding departments of the Faculty of Arts and Science at the University of Toronto (including the exams offered in-house by the Department of Spanish and Portuguese).
  - Significant prior training in a language (such as an undergraduate major or minor) will also be accepted as demonstration of reading knowledge.
  - Native speakers of languages other than English and Spanish, who have received their formal education in that language (minimum of a high school diploma) may request an exemption for the third-language requirement.
- **Years 3 and 4** are devoted to researching and writing the doctoral dissertation. The Supervisory Committee must normally approve the complete draft of the dissertation before the candidate can proceed to the Doctoral Final Oral Examination.
- Students fulfil the residence requirement by being registered as full-time on-campus and must reside in sufficient geographical proximity to enable them to fulfil the requirements of the program in a timely fashion. They are also expected to participate fully in departmental activities. While writing the dissertation, candidates are expected to be in residence, with the exception of absences for research purposes and approved leaves.

### Program Length

- **4 years full-time**

### Time Limit

- **6 years full-time**

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**Spanish: Spanish PhD; Field: Hispanic Literatures and Cultures**

**Doctor of Philosophy**

**Program Description**

The admissions process for the Doctor of Philosophy program is competitive; it is based on a number of factors in addition to grades. The principal factors include the ability of the department to offer graduate work in the applicant's preferred areas of interest, the availability of appropriate supervisory resources, and the suitability of the applicant in relation to the academic profile and programs of the department.

The department does not allow direct entry to the PhD program with a BA degree. Students in the MA program in Spanish who would like to continue to the PhD must apply through the regular application process; there is no process for direct transfer from MA to PhD.

**Field: Hispanic Literatures and Cultures**

**Minimum Admission Requirements**

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Spanish's additional admission requirements stated below.
- Master's degree from a recognized university in an appropriate discipline with an average of A– or higher. Applicants apply online and should arrange for electronic submission of the following material:
  - A one-page statement of purpose, outlining the applicant's areas of interest (in English).
  - A sample of written work in Spanish (10 to 12 pages double spaced).
  - Two letters of recommendation, ideally in English (one of the letters must comment on the applicant's fluency in Spanish).
  - A curriculum vitae in English.

**Program Requirements**

- Students must specialize in one geographic area of study in accordance with distribution requirements for the field:
  - Latin American Literature and Culture.
  - Spanish Peninsular Literature and Culture.
- **Coursework.** Students must successfully complete a total of 4.0 full-course equivalents (FCEs). Course selection is proposed to the Graduate Coordinator, who reviews and approves the plan in consultation with the faculty supervisor to ensure they relate to the proposed research area of the dissertation:
  - A minimum of 1.5 FCEs in their chosen geographic area of study.
  - 0.5 FCE in the other geographic area of study.
  - For students specializing in Latin American Literature and Culture, an additional 0.5 FCE in pre-1700 literature and culture if not previously completed at the master's level.
  - 0.5 FCE in Hispanic Linguistics, if not previously completed at the master's level.
Of the remaining coursework, up to 1.0 FCE may be taken outside the department from a cognate unit.

Students are expected to complete their coursework in Year 1. However, with the approval of the Graduate Coordinator, up to 1.0 FCE may be taken in Year 2.

Students must maintain a minimum average of A– in order to remain in good academic standing.

By March 25 of Year 1, each student must seek approval from the Graduate Advisory Committee for the proposed area of his/her dissertation and the membership of the Field Examination Committee (normally the proposed dissertation supervisor and two other members of the graduate faculty). The Graduate Advisory Committee will respond in writing by May 1 of the same year. The final decision in this matter rests with the Graduate Advisory Committee. In consultation with their committee, students must start their preparation for their field exams in the Summer session of Year 1.

The field examination centres on two subfields: the subfield of the student's proposed dissertation research and a subfield relevant to the student's research and general preparation.

By October 1 of Year 2, each student must submit to the Graduate Coordinator a brief statement (three to four pages double spaced) concerning the primary and secondary subfields for their field examination and two reading lists (one for each subfield). Each reading list should consist of 25 to 30 items and should include primary and secondary sources. The student's Field Committee will review this material and meet with the student to indicate revisions or additions to the reading lists. The student must file final copies of the two reading lists and statements, as approved by the committee, with the Graduate Coordinator by November 1.

The field examination will take place between January 15 and February 15 of Year 2. It has two parts: a written examination of six hours and an oral examination of two hours. Each part will cover the primary and secondary subfields that the student has prepared.

- The written examination will consist of three questions. At least one of the questions must be answered in Spanish, and at least one of the questions must be answered in English.
- The oral examination will follow two weeks after the written exam; it will normally be conducted in Spanish, although English may be used to accommodate committee members from cognate units. The Field Committee will grade the two parts of the examination together, on a credit/non-credit basis. A student who does not receive credit on the first attempt must retake both parts of the examination by May 10.

Each student must submit a written dissertation proposal to the Graduate Coordinator by April 25 of Year 2 of enrolment in the program. The written proposal articulates the topic, the research questions and methodology of the student's proposed research, and presents a sample of analysis, in approximately 25 pages double spaced. In addition, the proposal should include a bibliography, an outline of the dissertation, and a plan of action which associates the outline with activities of research and writing within a timeline for the three sessions per year. The proposal should be written in the language that the student intends to use in writing the dissertation (Spanish or English).

- Each student must defend their dissertation proposal (including the outline and plan of action) in a two-hour, public oral examination to be held by May 15, normally conducted in the language of the student's proposal.
- The student's Field Committee will grade the written proposal and the oral examination on a credit/non-credit basis. A student who does not receive credit on the first attempt must revise and resubmit the dissertation proposal by September 15 of Year 3 of enrolment and retake the oral examination on the proposal by October 15 of that year.

Language requirements must be fulfilled before registering for Year 4. Each student must demonstrate a reading knowledge of French and of a third non-English language relevant to their area of research. These language requirements may be satisfied by passing the appropriate reading knowledge courses or examinations offered by the corresponding departments of the Faculty of Arts and Science at the University of Toronto (including the exams offered in-house by the Department of Spanish and Portuguese).

- Significant prior training in a language (such as an undergraduate major or minor) will also be accepted as demonstration of reading knowledge.
- Native speakers of languages other than English and Spanish, who have received their formal education in that language (minimum of a high school diploma) may request an exemption for the third-language requirement.

Years 3 and 4 are devoted to researching and writing the doctoral dissertation. The Supervisory Committee must normally approve the complete draft of the dissertation before the candidate can proceed to the Doctoral Final Oral Examination.

Students fulfil the residence requirement by being registered as full-time on-campus and must reside in sufficient geographical proximity to enable them to fulfil the requirements of the program in a timely fashion. They are also expected to participate fully in departmental activities.

While writing the dissertation, candidates are expected to be in residence, with the exception of absences for research purposes and approved leaves.

Program Length

4 years full-time

Time Limit

6 years full-time

Spanish: Spanish MA, PhD Courses

Most graduate courses are offered in a regular rotation. As a result, only a subset of the courses that appear in this calendar entry will be available in a given academic session. A list of offered courses is posted on the department's website.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>SPA1053H</td>
<td>History of the Spanish Language</td>
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<tr>
<td>SPA1080H</td>
<td>Descriptive Grammar of Spanish</td>
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<tr>
<td>SPA1081H</td>
<td>Structure of Spanish</td>
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<tr>
<td>SPA1082H</td>
<td>Sociolinguistics of Spanish</td>
</tr>
<tr>
<td>SPA1083H</td>
<td>Microvariation in Spanish</td>
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<tr>
<td>SPA1084H</td>
<td>Experimental Approaches to Hispanic Linguistics</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>SPA1089H</td>
<td>Spanish Morphosyntax</td>
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<tr>
<td>SPA1090H</td>
<td>Second Language Speech Learning</td>
</tr>
<tr>
<td>SPA1091H</td>
<td>Second Language Acquisition of Portuguese and Spanish</td>
</tr>
<tr>
<td>SPA1092H</td>
<td>Portuguese and Spanish Semantics</td>
</tr>
<tr>
<td>SPA1093H</td>
<td>Linguistics in Spanish</td>
</tr>
<tr>
<td>SPA1096H</td>
<td>From Reflective Planning to Delivery in Language Teaching</td>
</tr>
<tr>
<td>SPA1097H</td>
<td>Second-Language Teaching and Methodology</td>
</tr>
<tr>
<td>SPA1101H</td>
<td>Topics in the Acquisition of Spanish</td>
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<tr>
<td>SPA1104H</td>
<td>Experimental Approaches to Sound Variation and Change</td>
</tr>
<tr>
<td>SPA1150H</td>
<td>Directed Research in Hispanic Linguistics</td>
</tr>
<tr>
<td>SPA2016H</td>
<td>Medieval Spanish Narrative</td>
</tr>
<tr>
<td>SPA2018H</td>
<td>Poetics of Early Drama</td>
</tr>
<tr>
<td>SPA2121H</td>
<td>Psychoanalysis and the Passions in Early Modern Literature</td>
</tr>
<tr>
<td>SPA2152H</td>
<td>Cervantes’ Don Quixote</td>
</tr>
<tr>
<td>SPA2160H</td>
<td>Transatlantic Hispanic Baroque</td>
</tr>
<tr>
<td>SPA2186H</td>
<td>House, Home, and Dwelling in Latin America</td>
</tr>
<tr>
<td>SPA2291H</td>
<td>The Urban Experience in Spain</td>
</tr>
<tr>
<td>SPA2292H</td>
<td>New Ruralism and Spain</td>
</tr>
<tr>
<td>SPA2305H</td>
<td>Auteurism in Spanish Cinema</td>
</tr>
<tr>
<td>SPA2352H</td>
<td>Modern Spanish Drama and its Traditions</td>
</tr>
<tr>
<td>SPA2400H</td>
<td>Topics in Latin American Cultural and Literary Studies</td>
</tr>
<tr>
<td>SPA2404H</td>
<td>The Latin American Novel</td>
</tr>
<tr>
<td>SPA2406H</td>
<td>Latin American Narratives of Resistance</td>
</tr>
<tr>
<td>SPA2411H</td>
<td>Latin American Icons and the Sensory Work of Objects</td>
</tr>
<tr>
<td>SPA2412H</td>
<td>Disease Stories: Race, and Fears of Contagion in Latin America</td>
</tr>
<tr>
<td>SPA2415H</td>
<td>Disability and Latin American Cultural Production</td>
</tr>
<tr>
<td>SPA2424H</td>
<td>Spanish American Poetry and Poetics</td>
</tr>
<tr>
<td>SPA2425H</td>
<td>21st Century Latin American Art and Culture</td>
</tr>
<tr>
<td>SPA2428H</td>
<td>Latin American Visual Culture</td>
</tr>
<tr>
<td>SPA2432H</td>
<td>Text and Image in Latin American Culture</td>
</tr>
<tr>
<td>SPA2802H</td>
<td>The Politics of Errantry in the Hispanic Caribbean</td>
</tr>
<tr>
<td>SPA2805H</td>
<td>Representations of Women in Latin American Culture</td>
</tr>
<tr>
<td>SPA2900H</td>
<td>Issues in Literary Theory and Hispanic Texts</td>
</tr>
<tr>
<td>SPA2905H</td>
<td>Latin American Cultural Theories</td>
</tr>
<tr>
<td>SPA2940H</td>
<td>Pursuing the Post-Revolution: Literature and Philosophy of Mexicanidad</td>
</tr>
<tr>
<td>SPA2947H</td>
<td>Transparency and Politics in Contemporary Mexican Literature</td>
</tr>
<tr>
<td>SPA3000H</td>
<td>Directed Research in Hispanic Literatures</td>
</tr>
<tr>
<td>SPA3300H</td>
<td>Hispanic Literature and Linguistics Research Forum (Credit/No Credit)</td>
</tr>
<tr>
<td>SPA3400H</td>
<td>Research Development (Credit/No Credit)</td>
</tr>
<tr>
<td>JOS5019H</td>
<td>Cervantes and Renaissance Humanism</td>
</tr>
<tr>
<td>JOS5029H</td>
<td>Reading Cervantes</td>
</tr>
<tr>
<td>JRL1101H</td>
<td>Topics in Romance Laboratory Phonetics and Phonology I: Theory</td>
</tr>
</tbody>
</table>
Speech-Language Pathology

Speech-Language Pathology: Introduction

Faculty Affiliation

Medicine

Degree Programs

Speech-Language Pathology

MHSc

Overview

The Department of Speech-Language Pathology was established at the University of Toronto in 1958 with the creation of a two-year postgraduate diploma program, the first English-speaking program in Canada. The Master of Health Science (MHSc) program was established in 1978 and is a full-time professional graduate program. Academic and clinical faculty provide innovative teaching and learning opportunities for students in a unique integrated curriculum.

Contact and Address

Web: slp.utoronto.ca
Email: slp.studentaffairs@utoronto.ca
Telephone: (416) 978-1794

Department of Speech-Language Pathology
Temerty Faculty of Medicine
University of Toronto
Rehabilitation Sciences Building
#160-500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Speech-Language Pathology: Graduate Faculty

Full Members

Bressmann, Tim - MPH, PhD
De Nil, Luc - MSc, PhD
Girolametto, Luigi - BA, MSc, PhD
Helms-Park, Rena - BA, MA, AM, DPhil
Johnson, Carla - PhD
Martino, Rosemary - BS, MA, MSc, PhD
Rochon, Elizabeth - BA, MSc, PhD
Simic, Tijana - BSc, MHSc, PhD
Square, Paula Ann - BSc, MA, PhD
van Lieshout, Pascal - MA, MA, PhD (Chair and Graduate Chair)
Washington, Karla - BA, MSc, PhD
Yunusova, Yana - MA, MS, PhD

Associate Members

Bradley, Kimberley - BA, MHSc, PhD

Speech-Language Pathology: Speech-Language Pathology MHSc

Master of Health Science

Program Description

The MHSc program educates graduate students to become highly competent entry-level clinicians in the profession of speech-language pathology. It prepares students to work in a variety of settings, such as hospitals, schools, community clinics, and private practice. Speech-language pathologists provide services across the lifespan to individuals with a wide range of speech, language, hearing, and swallowing disorders. The integrated curriculum places equal emphasis on theoretical and practical competencies regarding normal development, as well as the assessment and treatment of disorders in human communication and swallowing.

The MHSc program offers a unique and internationally acclaimed curriculum that extends over 22.5 months and comprises five academic and four clinical units. The themed academic units are directly followed by full-time clinical placements targeting the same areas of practice, enabling a strong research-to-practice focus.

Throughout the two-year program, students will develop a strong focus on evidence-based and interprofessional practice through lectures, learning activities, mentorship, and self-directed projects. As part of SLP1509Y, students will participate in the Interprofessional Education curriculum offered by the Centre for Interprofessional Education at the University of Toronto. At the conclusion of their MHSc program, students will have an opportunity to showcase their learning outcomes and entry-level competencies.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies.
- Applicants must also satisfy the Department of Speech-Language Pathology's additional admission requirements stated below and outlined in the Ontario Rehabilitation Sciences Application Service (ORPAS) Application Guide.
- Applicants must obtain an appropriate bachelor's degree from a recognized university, with a standing equivalent to at least a University of Toronto mid-B in the final year.
- Applicants must complete prerequisite undergraduate university-level courses with grades of at least a B+ in child development (one half course), general linguistics (one half course), phonetics (one half course), elementary statistics (one half course), research methods (one half course), and human physiology (one full course).

Ellwood, Lynn - BSc(DD), MA
Jacobson, Marlene - BA, PhD
Kagan, Aura - BAA, BA, MA, PhD
Leonard, Carol - BA, MASc, PhD
Parnes, Penny - BSc
Wagner, Susan - BSc, MSc
Weizman, Elaine - BA, MEd
Applicants must arrange to have two academic referees complete the Confidential Assessment Form and write an academic reference letter.

Applicants must complete a minimum of 14 hours of clinical experience supervised by a registered speech-language pathologist.

Applicants must arrange for a Clinical Reference Form and accompanying letter from the primary supervisor of the clinical experience.

Applicants must complete a Statement of Intent that has two components: 1) their reasons for choosing speech-language pathology as a career; specific personal attributes that would be relevant to the profession; academic and non-academic accomplishments; and reasons for choosing the MHSc program in Speech-Language Pathology at the University of Toronto; and 2) a summary of volunteer experiences.

Proficiency in oral and written English is required for both the academic and applied aspects of the program. Applicants who were educated outside Canada, whose primary language is not English and who graduated from a university where the language of instruction was not English, must demonstrate proficiency in the English language through the successful completion of one of the English proficiency tests. To satisfy the requirement, the department strongly prefers the Test of English as a Foreign Language (TOEFL) with the following minimum scores:

- Internet-based TOEFL: 100/120 with 22/30 on the speaking section and 22/30 on the writing section.

If an applicant finds it impossible to take the TOEFL, the department will accept the International English Language Testing System (IELTS) with a minimum score of 8.0.

Applicants may be requested to attend a personal meeting with members of the Department of Speech-Language Pathology to provide an opportunity to clarify documentation and explore in-depth issues, such as spoken and written language ability and areas of academic performance or interpersonal communication skills.

See the departmental website and the ORPAS Application Guide for details on application instructions.

Program Requirements

The professional MHSc program is divided into five academic and four clinical units. Successful completion of all courses and program requirements in the units is required. Each academic unit is composed of related coursework. Teaching within and across units emphasizes integrated learning experiences. Academic units are followed by full-time clinical placements, four overall for a total of 30 weeks of clinical experience throughout the two-year program. Students should anticipate receiving at least one placement outside the Greater Toronto Area. Students must accept placements offered to them and are responsible for all related travel and accommodation costs.

Prior to graduation, all MHSc students are required to demonstrate their learning outcomes and entry-level competency in key areas of professional practice.

Students will complete the program requirements within two consecutive years.

Program Length

6 sessions full-time (typical registration sequence: F/W/S/F/W/S)

Speech-Language Pathology: Speech-Language Pathology MHSc Courses

Consult the departmental website for a listing of all required courses offered during each academic year.

Students must successfully complete a total of 17.5 full-course equivalents (FCEs) as follows:

### Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLP1500Y</td>
<td>Internship (Credit/No Credit)</td>
</tr>
<tr>
<td>SLP1502Y</td>
<td>Anatomy and Embryology</td>
</tr>
<tr>
<td>SLP1503Y</td>
<td>Articulation and Related Disorders</td>
</tr>
<tr>
<td>SLP1505Y</td>
<td>Child Language I</td>
</tr>
<tr>
<td>SLP1506H</td>
<td>Child Language II</td>
</tr>
<tr>
<td>SLP1507H</td>
<td>Clinical Laboratory in Speech-Language Pathology (Credit/No Credit)</td>
</tr>
<tr>
<td>SLP1509Y</td>
<td>Integrating Client, Practitioner, and Research Knowledge in Practice (Credit/No Credit)</td>
</tr>
<tr>
<td>SLP1514Y</td>
<td>Applied Audiology</td>
</tr>
<tr>
<td>SLP1516H</td>
<td>Aural Rehabilitation</td>
</tr>
<tr>
<td>SLP1520H</td>
<td>Principles of Clinical Practice</td>
</tr>
<tr>
<td>SLP1521H</td>
<td>Augmentative Communication</td>
</tr>
<tr>
<td>SLP1522Y</td>
<td>Speech Physiology and Acoustics</td>
</tr>
<tr>
<td>SLP1529H</td>
<td>Fluency Disorders</td>
</tr>
<tr>
<td>SLP1530H</td>
<td>Voice Disorders</td>
</tr>
<tr>
<td>SLP1532H</td>
<td>Clinical Laboratory in Hearing Disorders (Credit/No Credit)</td>
</tr>
</tbody>
</table>

### Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLP1508Y</td>
<td>Advanced Clinical Laboratory in Speech-Language Pathology</td>
</tr>
<tr>
<td>SLP1525H</td>
<td>Structurally Related Disorders</td>
</tr>
<tr>
<td>SLP1527H</td>
<td>Clinical Analysis of Communication and Swallowing Disorders</td>
</tr>
<tr>
<td>SLP1533Y</td>
<td>Aphasia</td>
</tr>
<tr>
<td>SLP1534H</td>
<td>Motor Speech Disorders</td>
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</tbody>
</table>

Time Limit

3 years full-time
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLP1535H</td>
<td>Advanced Principles of Clinical Practice</td>
</tr>
<tr>
<td>SLP1536H</td>
<td>Swallowing Disorders</td>
</tr>
<tr>
<td>SLP1538H</td>
<td>Neurocognitive Communication Disorders</td>
</tr>
<tr>
<td>SLP2500Y</td>
<td>Advanced Internship</td>
</tr>
</tbody>
</table>

0 Course that may continue over a program. Credit is given when the course is completed, or the course is graded when completed.

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Statistical Sciences

Statistical Sciences: Introduction

Faculty Affiliation
Arts and Science

Degree Programs

Financial Insurance
MFI

Statistics

MSc
- Fields:
  - Statistical Theory and Applications;
  - Probability

PhD
- Fields:
  - Statistical Theory and Applications;
  - Probability;
  - Actuarial Science and Mathematical Finance

Overview

Statistical Sciences involves the study of random phenomena and encompasses a broad range of scientific, industrial, and social processes. As data become ubiquitous and easier to acquire, particularly on a massive scale, and computational tools become more efficient, models for data are becoming increasingly complex. The past several decades have witnessed a vast impact of statistical methods on virtually every branch of knowledge and empirical investigation.

Please visit the departmental website for details about the fields offered, the research being conducted, and the courses. The department offers substantial computing facilities and operates a statistical consulting service for the University’s research community. Programs of study may involve association with other departments such as Astronomy and Astrophysics, the Dalla Lana School of Public Health, the Faculty of Information, Mathematics, Philosophy, Psychology, Sociology, the Rotman School of Management, and the School of the Environment. The Department of Statistical Sciences maintains an active seminar series and strongly encourages graduate student participation.

Students may be interested in the Data Science concentration within the Master of Science in Applied Computing program.

Contact and Address

MFI Program
Web: www.mfi.utoronto.ca
Email: mfi.info@utoronto.ca
Telephone: (416) 978-7420

Department of Statistical Sciences
Faculty of Arts & Science, University of Toronto
Ontario Power Building, 700 University Avenue, 9th Floor
Toronto, Ontario M5G 1Z5
Canada

MSc and PhD Programs
Web: www.statistics.utoronto.ca
Email: grad.statistics@utoronto.ca

Department of Statistical Sciences
Faculty of Arts & Science, University of Toronto
Ontario Power Building, 700 University Avenue, 9th Floor
Toronto, Ontario M5G 1Z5
Canada

Statistical Sciences: Graduate Faculty

Full Members
Alexander, Monica - MA, PhD
Alexander, Rohan Peter - MSc, PhD
Badescu, Andrei - BSc, MSc, DPhil
Brenner, David - BSc, MSc, PhD
Broverman, Samuel - BSc, MSc, PhD
Brown, Patrick - BA, MSc, PhD
Brunner, Jerry - BA, MA, PhD, DPhil
Chevalier, Fanny - PhD
Craiu, Radu - BSc, MSc, PhD (Interim Chair and Graduate Chair)
Duvenaud, David - PhD
Erdogdu, Murat Anil - PhD
Escobar, Michael - BS, PhD
Evans, Michael - BSc, MSc, PhD
Feuerverger, Andrey - BSc, PhD
Fortin, Marie-Josée - MSc, PhD, CRC
Franklin, Meredith - BSc, MSc, PhD
Goldenberg, Anna - PhD, PhD
Gong, Ruobin - PhD
Gronsboom, Jessica - BA, PhD
Jaimungal, Sebastian - BSc, MSc, PhD
Knight, Keith - BSc, MS, PhD
Leos Barajas, Vianey - BSc, PhD
Lin, Xiaodong - BSc, MSc, MMath, PhD
Lou, Wendy - DPhil
McDunnough, Philip - BSc, MSc, PhD
Park, Jun Young - PhD
Pesenti, Silvana - BSc, MSc, PhD
Quastel, Jeremy - BSc, MS, PhD
Reid, Nancy - BM, MSc, PhD, FRSC
Rosenthal, Jeffrey - BSc, AM, PhD, FRSC
Roy, Daniel - BS, MEng, PhD
Seco, Luis - PhD
Shi, Xiaofei - MSc, PhD
Speagle, Joshua - MA, PhD
Stafford, James - BS, MS, PhD
Strug, Lisa - BS, BA, SM, PhD
Sun, Lei - BS, PhD
Urtasun, Raquel - PhD
Virag, Balint - BA, MA, PhD
Volgushev, Stanislav - MA, PhD (Associate Chair, Graduate Studies)
Wang, Linbo - BS, PhD
Williams, Joseph - PhD
Wong, Ting-Kam Leonard - BSc, MPH, PhD
Zhang, Yuchong - BSc, PhD
Zhou, Zhou - MSc, DPhil
Zwiernik, Piotr - MSc, MSc, PhD

Members Emeriti
Andrews, David - BSc, MSc, PhD
Guttman, Irwin - BSc, MA, PhD
Srivastava, Muni - MSc, PhD

Associate Members
Babic, Boris - JD, PhD
Bolton, Liza - BSc
Butler, Kenneth - BS, MS, PhD
Caetano, Samantha-Jo - BSc, MSc, PhD
Daignault, Katherine Suzanne - MSc, PhD
Gibbs, Alison - BSc, MSc, PhD
Maddison, Christopher - PhD
Moon, Nathalie - BSc, MMath, PhD
Schwartz, Scott - BS, BA, PhD
Singh, Murari - PhD
Taback, Nathan - BSc, MSc, PhD
Tyrrell, Pascal - BSc, MSc, PhD
White, Bethany - BSc, MMath, PhD
Willmot, Gordon - BMATH, MMath, PhD
Zhang, Vicki - BScEE, MSc

Statistical Sciences: Financial Insurance

MFI

Master of Financial Insurance

Program Description

The MFI is a full-time professional program based on three pillars: data science, financial mathematics, and insurance modelling. This program is appropriate for students with backgrounds in statistics, actuarial science, economics, and mathematics. Students with a quantitative background (such as physics and engineering) and sufficient statistical training are also encouraged to apply.

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Department of Statistical Sciences’ additional admission requirements stated below.
- An appropriate bachelor’s degree from a recognized university in a related field such as statistics, mathematics, finance, and actuarial science, or any discipline where there is a significant quantitative component. Studies must include significant exposure to statistics, mathematics, finance, and actuarial science, including coursework in advanced calculus, computational methods, linear algebra, probability, and statistics.
- An average grade equivalent to at least a University of Toronto B+ in the final year or over senior courses; applicants who meet the SGS grade minimum of mid-B and demonstrate exceptional ability through appropriate workplace experience will be considered.
- Three letters of reference including two academic references, one of which should be in a quantitative discipline.
- A curriculum vitae detailing the student’s educational background, professional experience, and skills.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English using one of the official methods outlined in the SGS Calendar.
- Selected applicants may be required to attend an interview.

Admission to the program is competitive, and achievement of the minimum admission standards does not guarantee admission into the program.

Program Requirements

- Students must successfully complete 5.5 full-course equivalents (FCEs) as follows:
  - Eight required half courses (4.0 FCEs).
  - STA2546H Data Analytics in Practice (0.25 FCE).
  - Any one of Statistical Sciences’ 0.25 FCE 4000-level graduate course offerings with significant financial, insurance, or data science components, with approval of the MFI program director.
  - STA2560Y Industrial Internship, a four-month summer internship (1.0 FCE). Students must submit a project proposal to the program director and select an advisor by May 15. An interim report is required by July 7. Students must prepare a final written report and deliver an oral presentation on the internship project at the conclusion of the internship.

Required Courses

Fall Session

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>STA2503H</td>
<td>Applied Probability for Mathematical Finance</td>
</tr>
<tr>
<td>STA2530H</td>
<td>Applied Time-Series Analysis</td>
</tr>
<tr>
<td>STA2535H</td>
<td>Life Insurance Mathematics</td>
</tr>
<tr>
<td>STA2536H</td>
<td>Data Science for Risk Modelling</td>
</tr>
<tr>
<td>STA2550H*</td>
<td>Industrial Seminar Series</td>
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</table>

Winter Session

<table>
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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>STA2540H</td>
<td>Insurance Risk Management</td>
</tr>
<tr>
<td>STA2546H</td>
<td>Data Analytics in Practice</td>
</tr>
<tr>
<td>STA2550H*</td>
<td>Industrial Seminar Series</td>
</tr>
<tr>
<td>STA2551H</td>
<td>Finance and Insurance Case Studies</td>
</tr>
<tr>
<td>STA2570H</td>
<td>Numerical Methods for Finance and Insurance</td>
</tr>
</tbody>
</table>
### Summer Session

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>STA2560Y</td>
<td>Industrial Internship</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.

### Program Length

- **3 sessions full-time (typical registration sequence: F/W/S)**
- **6 sessions part-time**

### Time Limit

- **3 years full-time**
- **6 years part-time**

### Statistical Sciences: Statistics MSc

#### Master of Science

#### Program Description

Students in the MSc program can conduct research in the fields of 1) Statistical Theory and Applications or 2) Probability. The program offers numerous courses in theoretical and applied aspects of Statistical Sciences, which prepare students for pursuing a PhD program or directly entering the data science workforce.

The MSc program can be taken on a full-time or part-time basis. Program requirements are the same for the full-time and part-time options.

#### Fields:

1) Statistical Theory and Applications;
2) Probability

#### Minimum Admission Requirements

- Admission to the MSc program is competitive, and applicants are admitted under the General Regulations of the School of Graduate Studies. Admission requirements for the Statistical Theory and Applications field and the Probability field are identical. Successful applicants have:
  - An appropriate bachelor's degree from a recognized university in a related field such as statistics, actuarial science, mathematics, economics, engineering, or any discipline where there is a significant quantitative component. Studies must include significant exposure to statistics, computer science, and mathematics, including coursework in advanced calculus, computational methods, linear algebra, probability, and statistics.
  - Three letters of reference.
  - A curriculum vitae.
  - Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

#### Program Requirements

- **Both the Statistical Theory and Applications field and the Probability field have the same program requirements. All programs must be approved by the Associate Chair for Graduate Studies.**
- Students must complete a total of 4.0 full-course equivalents (FCEs), of which 2.0 must be chosen from the list below:
  - STA2101H Methods of Applied Statistics I
  - STA2201H Methods of Applied Statistics II
  - STA2111H Probability Theory I
  - STA2211H Probability Theory II
  - STA2112H Mathematical Statistics I
  - STA2212H Mathematical Statistics II
- The remaining 2.0 FCEs may be selected from:
  - Any Department of Statistical Sciences 2000-level course or higher.
  - Any 1000-level course or higher in another graduate unit at the University of Toronto with sufficient statistical, computational, probabilistic, or mathematical content.
  - One 0.5 FCE as a reading course.
  - One 0.5 FCE as a research project.
  - A maximum of 1.0 FCE from any STA 4500-level modular course (each are 0.25 FCE).
- All programs must be approved by the Associate Chair for Graduate Studies. Students must meet with the Associate Chair to ensure that their program meets the requirements and is of sufficient depth.
- **Part-time students** are limited to taking 1.0 FCE during each session. In exceptional cases, the Associate Chair for Graduate Studies may approve 1.5 FCEs in a given session.

#### Program Length

- **3 sessions full-time (typical registration sequence: F/W/S);**
- **6 sessions part-time**

### Statistical Sciences: Statistics PhD

#### Doctor of Philosophy

#### Program Description

Students in the PhD program can conduct research in the fields of 1) Statistical Theory and Applications or 2) Probability or 3) Actuarial Science and Mathematical Finance. The research conducted in the department is vast and covers a diverse set of
areas in theoretical and applied aspects of Statistical Sciences. Students have the opportunity to work in multidisciplinary areas and team up with researchers in, for example, Biostatistics, Computer Science, Economics, Engineering, and the Rotman School of Management. The main purpose of the program is to prepare students for pursuing advanced research both in academia and in research institutes.

Applicants may enter the PhD program via one of two routes: 1) following completion of an appropriate master’s degree or 2) direct entry after completing an appropriate bachelor’s degree (excluding Actuarial Science and Mathematical Finance).

**Fields:**
1) Statistical Theory and Applications;
2) Probability

**PhD Program**

**Minimum Admission Requirements**

- Admission to the PhD program is competitive, and applicants are admitted under the General Regulations of the School of Graduate Studies.
- Applicants may be accepted with a master's degree in statistics from a recognized university with at least a B+ average. Applicants with degrees in biostatistics, computer science, economics, engineering, mathematics, physics, or any discipline where there is a significant quantitative component will also be considered.
- Three letters of recommendation.
- A curriculum vitae.
- A letter of intent or personal statement outlining goals for graduate studies.
- Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

**Program Requirements**

**Course Requirements**

- During Year 1, students must successfully complete a total of 3.0 full-course equivalents (FCEs) as follows:
  - STA3000Y Advanced Theory of Statistics (1.0 FCE)
  - and two of the following:
    - STA2101H Methods of Applied Statistics I and STA2201H Methods of Applied Statistics II (1.0 FCE)
    - STA2111H Probability Theory I and STA2211H Probability Theory II (1.0 FCE)
- Courses must be chosen in consultation with the advisor and approved by the Associate Chair of Graduate Studies.

**Comprehensive Examination Requirements**

- Within Years 1 and 2, students must complete a two-part comprehensive examination: 1) an in-class written comprehensive exam and 2) a research comprehensive exam.
  - Students must attempt the in-class written comprehensive by the end of Year 1. If a student fails this portion of the comprehensive exam, one further attempt will be allowed by the end of Year 2. Students who achieve A or A+ grades in all required coursework are exempt from the in-class written exam.
  - Students must attempt the research comprehensive exam by the beginning of Year 2, which includes a technical report and an oral presentation. If a student fails this portion of the comprehensive exam, one further attempt will be allowed at the end of Year 2.
  - Students must pass both the in-class written exam and the research exam to continue in the program.

**Thesis Requirements**

Conducting original research is the most important part of doctoral work. The thesis document must constitute significant and original contribution to the field. Students will have yearly meetings with a committee of no less than three faculty members to assess their progress. The completed thesis must be presented and defended within the Department of Statistical Sciences in addition to being presented and defended at the School of Graduate Studies.

**Residency Requirements**

Students must also satisfy a two-year residency requirement, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

**Program Length**

4 years

**Time Limit**

6 years

**PhD Program (Direct-Entry)**

**Minimum Admission Requirements**

- Admission to the PhD program is competitive, and applicants are admitted under the General Regulations of the School of Graduate Studies.
- Applicants may be accepted via direct entry with a bachelor's degree in statistics from a recognized university with at least an A– average. The department also encourages applicants from biostatistics, computer science, economics, engineering, mathematics, physics, or any discipline where there is a significant quantitative component.
- Three letters of recommendation.
- A curriculum vitae.
- A letter of intent or personal statement outlining goals for graduate studies.
• Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.

Program Requirements

Course Requirements

• Students must successfully complete a total of 5.0 full-course equivalents (FCEs) as follows:
  o Year 1: complete 3.0 FCEs:
    ▪ STA3000Y Advanced Theory of Statistics (1.0 FCE) and two of the following:
    ▪ STA2101H Methods of Applied Statistics I and STA2201H Methods of Applied Statistics II (1.0 FCE)
    ▪ STA2111H Probability Theory I and STA2211H Probability Theory II (1.0 FCE)
  ▪ Courses must be chosen in consultation with the advisor and approved by the Associate Chair of Graduate Studies.
  o Complete an additional 2.0 FCEs at the graduate level. The additional courses must be approved by the Associate Chair of Graduate Studies.

Comprehensive Examination Requirements

• Within Years 1 and 2, students must complete a two-part comprehensive examination: 1) an in-class written comprehensive exam and 2) a research comprehensive exam.
  o Students must attempt the in-class written comprehensive by the end of Year 1. If a student fails this portion of the comprehensive exam, one further attempt will be allowed by the end of Year 2. Students who achieve A or A+ grades in all required coursework are exempt from the in-class written exam.
  o Students must attempt the research comprehensive exam by the beginning of Year 2, which includes a technical report and an oral presentation. If a student fails this portion of the comprehensive exam, one further attempt will be allowed at the end of Year 2.
  o Students must pass both the in-class written exam and the research exam to continue in the program.

Thesis Requirements

Conducting original research is the most important part of doctoral work. The thesis document must constitute significant and original contribution to the field. Students will have yearly meetings with a committee of no less than three faculty members to assess their progress. The completed thesis must be presented and defended within the Department of Statistical Sciences in addition to being presented and defended at the School of Graduate Studies.

Residency Requirements

Students must also satisfy a three-year residency requirement, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

5 years

Time Limit

7 years

Field: Actuarial Science and Mathematical Finance

PhD Program

Minimum Admission Requirements

• Admission to the PhD program is competitive, and applicants are admitted under the General Regulations of the School of Graduate Studies.
• Applicants may be accepted with a master's degree in statistics from a recognized university with at least a B+ average. Applicants with degrees in biostatistics, computer science, economics, engineering, mathematics, physics, or any discipline where there is a significant quantitative component will also be considered.
• Three letters of recommendation.
• A curriculum vitae.
• A letter of intent or personal statement outlining goals for graduate studies.
• Applicants whose primary language is not English and who graduated from a university where the language of instruction and examination was not English must demonstrate proficiency in English. See General Regulations section 4.3 for requirements.
Comprehensive Examination Requirements

- Within Years 1 and 2, students must complete a two-part comprehensive examination: 1) an in-class written comprehensive exam and 2) a research comprehensive exam.
  - Students must attempt the in-class written comprehensive by the end of Year 1. If a student fails this portion of the comprehensive exam, one further attempt will be allowed by the end of Year 2. Students who achieve A or A+ grades in all required coursework are exempt from the in-class written exam.
  - Students must attempt the research comprehensive exam by the beginning of Year 2, which includes a technical report and an oral presentation. If a student fails this portion of the comprehensive exam, one further attempt will be allowed at the end of Year 2.
  - Students must pass both the in-class written exam and the research exam to continue in the program.

Thesis Requirements

Conducting original research is the most important part of doctoral work. The thesis document must constitute significant and original contribution to the field. Students will have yearly meetings with a committee of no less than three faculty members to assess their progress. The completed thesis must be presented and defended within the Department of Statistical Sciences in addition to being presented and defended at the School of Graduate Studies.

Residency Requirements

Students must also satisfy a three-year residency requirement, whereby students must be on campus full-time and consequently in geographical proximity to be able to participate fully in the University activities associated with the program.

Program Length

4 years

Time Limit

6 years

Statistical Sciences: Statistics MSc, PhD Courses

The department offers a selection of courses each year from the following list with the possibility of additions. The core courses will be offered each year. Consult the department for courses offered in the current academic year.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA1001H</td>
<td>Applied Regression Analysis</td>
</tr>
<tr>
<td>STA1002H</td>
<td>Methods of Data Analysis</td>
</tr>
<tr>
<td>STA1003H</td>
<td>Sample Survey Theory and its Application</td>
</tr>
<tr>
<td>STA1004H</td>
<td>Introduction to Experimental Design</td>
</tr>
<tr>
<td>STA1007H</td>
<td>Statistics for Life and Social Scientists</td>
</tr>
<tr>
<td>STA1008H</td>
<td>Applications of Statistics</td>
</tr>
<tr>
<td>JAS1101H</td>
<td>Topics in Astrostatistics</td>
</tr>
<tr>
<td>STA2005H</td>
<td>Applied Multivariate Analysis</td>
</tr>
<tr>
<td>STA2006H</td>
<td>Applied Stochastic Processes</td>
</tr>
<tr>
<td>STA2016H</td>
<td>Theory and Methods for Complex Spatial Data (prerequisite: STA302H1)</td>
</tr>
<tr>
<td>STA2047H</td>
<td>Stochastic Calculus</td>
</tr>
<tr>
<td>STA2051H</td>
<td>Topics in Numerical Methods in Data Science</td>
</tr>
<tr>
<td>STA2052H</td>
<td>Statistics, Ethics, and Law</td>
</tr>
<tr>
<td>STA2053H</td>
<td>Special Topics in Applied Statistics (prerequisite: graduate-level statistical knowledge with permission of the instructor)</td>
</tr>
<tr>
<td>STA2080H</td>
<td>Fundamentals of Statistical Genetics</td>
</tr>
<tr>
<td>STA2101H</td>
<td>Methods of Applied Statistics I</td>
</tr>
<tr>
<td>STA2102H</td>
<td>Computational Techniques in Statistics</td>
</tr>
<tr>
<td>STA2104H</td>
<td>Statistical Methods for Machine Learning and Data Mining</td>
</tr>
<tr>
<td>STA2111H</td>
<td>Probability Theory I</td>
</tr>
<tr>
<td>STA2112H</td>
<td>Mathematical Statistics I</td>
</tr>
<tr>
<td>STA2162H</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>STA2163H</td>
<td>Online Learning and Sequential Decision Theory</td>
</tr>
<tr>
<td>STA2201H</td>
<td>Methods of Applied Statistics II</td>
</tr>
<tr>
<td>STA2202H</td>
<td>Time Series Analysis</td>
</tr>
<tr>
<td>STA2209H</td>
<td>Lifetime Date Modelling and Analysis</td>
</tr>
<tr>
<td>STA2211H</td>
<td>Probability Theory II</td>
</tr>
<tr>
<td>STA2212H</td>
<td>Mathematical Statistics II</td>
</tr>
<tr>
<td>STA2311H</td>
<td>Advanced Computational Methods for Statistics I</td>
</tr>
<tr>
<td>STA2312H</td>
<td>Advanced Computational Methods for Statistics II</td>
</tr>
<tr>
<td>STA2453H</td>
<td>Data Science Methods, Collaborations, and Communication</td>
</tr>
<tr>
<td>STA2500H</td>
<td>Loss Models</td>
</tr>
<tr>
<td>STA2501H</td>
<td>Advanced Topics in Actuarial Science</td>
</tr>
<tr>
<td>STA2502H</td>
<td>Stochastic Models in Investments</td>
</tr>
<tr>
<td>STA2503H</td>
<td>Applied Probability for Mathematical Finance</td>
</tr>
<tr>
<td>STA2505H</td>
<td>Credibility Theory and Simulation Methods</td>
</tr>
<tr>
<td>STA2530H</td>
<td>Applied Time-Series Analysis</td>
</tr>
<tr>
<td>STA2535H</td>
<td>Life Insurance Mathematics</td>
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<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>STA2536H</td>
<td>Data Science for Risk Modelling</td>
</tr>
<tr>
<td>STA2540H</td>
<td>Insurance Risk Management</td>
</tr>
<tr>
<td>STA2546H</td>
<td>Data Analytics in Practice</td>
</tr>
<tr>
<td>STA2550H*</td>
<td>Industrial Seminar Series</td>
</tr>
<tr>
<td>STA2551H</td>
<td>Finance and Insurance Case Studies</td>
</tr>
<tr>
<td>STA2555H</td>
<td>Information Visualization</td>
</tr>
<tr>
<td>STA2560Y</td>
<td>Industrial Internship</td>
</tr>
<tr>
<td>STA2570H</td>
<td>Numerical Methods for Finance and Insurance</td>
</tr>
<tr>
<td>STA2600H</td>
<td>Teaching and Learning of Statistics in Higher Education</td>
</tr>
<tr>
<td>STA2700H</td>
<td>Computational Inference and Graphical Models</td>
</tr>
<tr>
<td>STA3000Y</td>
<td>Advanced Theory of Statistics</td>
</tr>
<tr>
<td>STA3431H</td>
<td>Monte Carlo Methods</td>
</tr>
<tr>
<td>STA4000H</td>
<td>Supervised Reading Project I</td>
</tr>
<tr>
<td>STA4001H</td>
<td>Supervised Reading Project II</td>
</tr>
<tr>
<td>STA4002H</td>
<td>Supervised Reading Project for an Advanced Special Topic</td>
</tr>
<tr>
<td>STA4246H</td>
<td>Research Topics in Mathematical Finance</td>
</tr>
<tr>
<td>STA4273H</td>
<td>Research Topics in Statistical Machine Learning</td>
</tr>
<tr>
<td>STA4364H</td>
<td>Conditional Inference: Sample Space Analysis</td>
</tr>
<tr>
<td>STA4372H</td>
<td>Foundations of Statistical Inference</td>
</tr>
<tr>
<td>STA4514H</td>
<td>Modelling and Analysis of Spatially Correlated Data</td>
</tr>
<tr>
<td>STA4515H</td>
<td>Multiple Hypothesis Testing and its Applications</td>
</tr>
<tr>
<td>STA4516H</td>
<td>Topics in Probabilistic Programming</td>
</tr>
<tr>
<td>STA4517H</td>
<td>Foundations and Trends in Causal Inference</td>
</tr>
<tr>
<td>STA4518H</td>
<td>Robust Statistical Methods (prerequisite: STA2112H or permission of the instructor)</td>
</tr>
<tr>
<td>STA4519H</td>
<td>Optimal Transport: Theory and Algorithms (prerequisites: STA2111H and STA2211H, or permission of the instructor)</td>
</tr>
<tr>
<td>STA4522H</td>
<td>The Measurement of Statistical Evidence</td>
</tr>
<tr>
<td>STA4523H</td>
<td>Bayesian Computation with Massive Data and Intractable Likelihoods</td>
</tr>
<tr>
<td>STA4524H</td>
<td>Advanced Topics in Statistical Genetics</td>
</tr>
<tr>
<td>STA4525H</td>
<td>Demographic Methods</td>
</tr>
<tr>
<td>STA4526H</td>
<td>Stochastic Control and Applications in Finance</td>
</tr>
<tr>
<td>STA4527H</td>
<td>Random Matrix Theory and Its Applications</td>
</tr>
<tr>
<td>STA4528H</td>
<td>Dependence Modelling With Application to Risk Management</td>
</tr>
<tr>
<td>STA4529H</td>
<td>Applications of Nonstandard Analysis to Statistics and Probability Theory</td>
</tr>
<tr>
<td>STA4530H</td>
<td>Derivatives for Institutional Investing</td>
</tr>
<tr>
<td>STA4531H</td>
<td>Information Geometry (prerequisite: STA2111H or permission of the instructor)</td>
</tr>
</tbody>
</table>

Note: The following modular courses are each worth 0.25 full-course equivalent (FCE).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA4500H</td>
<td>Statistical Dependence: Copula Models and Beyond</td>
</tr>
<tr>
<td>STA4501H</td>
<td>Functional Data Analysis and Related Topics</td>
</tr>
<tr>
<td>STA4502H</td>
<td>Topics in Stochastic Processes</td>
</tr>
<tr>
<td>STA4505H</td>
<td>Applied Stochastic Control: High Frequency and Algorithmic Trading</td>
</tr>
<tr>
<td>STA4506H</td>
<td>Non-stationary Time Series Analysis</td>
</tr>
<tr>
<td>STA4507H</td>
<td>Extreme Value Theory and Applications</td>
</tr>
<tr>
<td>STA4508H</td>
<td>Topics in Likelihood Inference</td>
</tr>
<tr>
<td>STA4509H</td>
<td>Insurance Risk Models I</td>
</tr>
<tr>
<td>STA4510H</td>
<td>Topics in Insurance Risk Modelling II</td>
</tr>
<tr>
<td>STA4512H</td>
<td>Logical Foundations of Statistical Inference</td>
</tr>
</tbody>
</table>

* Extended course. For academic reasons, coursework is extended into session following academic session in which course is offered.
Theoretical Astrophysics

Theoretical Astrophysics: Introduction

Faculty Affiliation

Arts and Science

Degree Programs

The Canadian Institute for Theoretical Astrophysics (CITA) does not offer an independent graduate degree program. Students interested in theoretical astrophysics are encouraged to enrol in the graduate programs offered by cognate departments such as Astronomy and Astrophysics, Chemistry, and Physics.

All CITA faculty hold cross-appointments in one or more of these departments; students seeking research supervision by CITA faculty are welcome to inquire. CITA research fellows and visitors are also encouraged to work with graduate students.

Overview

Established in 1984, the Canadian Institute for Theoretical Astrophysics (CITA) is a national institute specializing in theoretical astrophysics. CITA is supported by the University of Toronto, the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Canadian Institute for Advanced Research (CIFAR).

CITA owns an extensive and powerful network of workstations, including a 200-node, 1600-core Beowulf computing cluster. CITA also uses the 30,000 core computing cluster housed at the SciNet consortium at the University of Toronto.

The research activities at CITA span most of the areas of modern theoretical astrophysics, including accretion disks, active galactic nuclei, general relativity, and gravitational waves, cosmology and cosmological aspects of particle physics, the cosmic microwave background, gravitational lenses, dark matter, galaxy formation, galaxy structure and evolution, dynamics of stellar systems, physics and chemistry of the interstellar medium, star formation, stellar evolution, novae, supernovae, compact objects and gamma-ray bursts, nucleosynthesis, solar system formation and dynamics, and comets.

CITA has the support of over 50 faculty members from about 20 Canadian universities. CITA also maintains a rotating complement of more than 30 postdoctoral fellows and research associates, and hosts an active program of visitors from other universities. The theoretical interests of many CITA staff are complemented by observational research. CITA researchers have active observing programs at a wide variety of ground-based and satellite telescopes in many different wavelength bands.

Contact and Address

Web: www.cita.utoronto.ca
Email: office@cita.utoronto.ca
Telephone: (416) 978-6879
Fax: (416) 978-3921
Women and Gender Studies

Women and Gender Studies: Introduction

Faculty Affiliation
Arts and Science

Degree Programs
Women and Gender Studies
MA and PhD

Collaborative Specializations

The following collaborative specializations are available to students in participating degree programs as listed below:

- **Aging, Palliative and Supportive Care Across the Life Course**
  - Women and Gender Studies, MA
- **Bioethics**
  - Women and Gender Studies, MA
- **Contemporary East and Southeast Asian Studies**
  - Women and Gender Studies, MA
- **Development Policy and Power**
  - Women and Gender Studies, MA
- **Diaspora and Transnational Studies**
  - Women and Gender Studies, MA, PhD
- **Environment and Health**
  - Women and Gender Studies, MA, PhD
- **Environmental Studies**
  - Women and Gender Studies, MA, PhD
- **Ethnic, Immigration and Pluralism Studies**
  - Women and Gender Studies, MA, PhD
- **Jewish Studies**
  - Women and Gender Studies, MA
- **Sexual Diversity Studies**
  - Women and Gender Studies, MA, PhD
- **South Asian Studies**
  - Women and Gender Studies, MA, PhD
- **Women’s Health**
  - Women and Gender Studies, MA, PhD
- **Workplace Learning and Social Change**
  - Women and Gender Studies, MA

Overview

The core faculty brings transnational feminist commitments to the study of diverse sites and their interconnection with particular focus on Canada, the Caribbean, Africa, the Middle East, South Asia, East Asia, and the United States. In doing so, the institute seeks to ask feminist questions as well as put feminism into question.

Areas of focus within the transnational feminist approach include:

- gender, sexuality and queer studies
- political economy and critical development studies
- feminist studies of technology, science, environment and biomedicine
- feminist cultural studies.

The MA and PhD degree programs also feature the option of a practicum that aspires to strengthen students’ ability to interrogate the application of theories and methods to lived practice.

Contact and Address

Web: [www.wgsi.utoronto.ca/graduate](http://www.wgsi.utoronto.ca/graduate)
Email: wgsi.programs@utoronto.ca
Telephone: (416) 978-3668
Fax: (416) 946-5561

Graduate Program in Women and Gender Studies
Women and Gender Studies Institute, University of Toronto
Wilson Hall, New College, 40 Willcocks Street
Toronto, Ontario M5S 1C6 Canada

Women and Gender Studies: Graduate Faculty

Full Members

Bamford, Sandra - BA, MA, MPA, PhD
Bhuyan, Rupaleem - BA, MA, PhD
Boddy, Janice - BA, MA, PhD
Boler, Megan - BA, PhD
Brown, Elspeth - BA, PhD
Cobb, Michael - BA, MA, AM, PhD
Columber, Corinn - BA, PhD
Cossman, Brenda - LLB, LLM, Goodman/Schipper Chair
Cowen, Deborah - BA, MCP, PhD
Dave, Naisargi N. - BA, MA, PhD
Diaz, Robert - PhD
Georgis, Dina - PhD *(Graduate Coordinator)*
Johnson, Chris - PhD
Keith, Alison - BA, MA, PhD, FRSC
Klassen, Pamela - BA, MA, PhD
Larson, Katie - BMus, AB, MPH, PhD
Lo, Marieme - BA, MA, MSc, PhD
Lord, R. Cassandra - BA, BA, MA, PhD
Magnusson, Jamie-Lynn - BA, MA, PhD
McElhinney, Bonnie - BA, MA, MA, PhD, PhD
Mirchandani, Kiran - BA, MPH, PhD
Mojab, Shahrazad - BA, MEd, EdD
Morgenstern, Naomi - BA, MA, PhD
Murphy, Michelle - BA, PhD
Murray, Heather - BA, MA, PhD
Newton, Melanie - BA, PhD
Program Requirements

- The student's program of study must be approved by the Women and Gender Studies Institute. Students must complete a total of 3.5 full-course equivalents (FCEs) as follows:
  - 0.5 core FCEs in women and gender studies (WGS5000H).
  - 1.0 elective FCE in women and gender studies; either a special topics seminar (please see course list of special topics seminars) or an independent research/reading course (WGS1007H).
  - 1.0 FCE MA Research Paper (WGS1005Y).
  - 1.0 FCE (one year-long or two half-year courses) offered by other departments and chosen in consultation with the faculty advisor.
  - Completion of WGS2000H (0.0 FCE; Credit/No Credit), requiring participation in the WGS Research Seminar Series. To complete this requirement, students must attend at least 80% of the seminars during the Fall/Winter academic session.
- The MA degree program is not offered on a part-time basis.

Program Length

3 sessions full-time (typical registration sequence: F/W/S)

Time Limit

3 years full-time

Women and Gender Studies: Women and Gender Studies PhD

Doctor of Philosophy

Program Description

The PhD program in Women and Gender Studies has four areas of focus:

- gender, sexuality, and queer studies
- feminist cultural studies
- feminist studies of technology, science, environment, and biomedicine
- transnational political economy and development studies.

The offerings bring feminist scholarship to the tasks of challenging and investigating colonial, postcolonial, and transnational contexts. Central themes of the program include global capitalism, nation and state formation, empire, citizenship, diaspora, and cultural flows, all of which are examined through the lenses of diverse feminist scholarship. The program welcomes applications from international students.

Applicants may enter the PhD program via one of two routes:

- following completion of an appropriate MA
- direct entry after completing a bachelor's degree.
PhD Program

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Women and Gender Studies Institute’s additional admission requirements stated below.
- A master’s degree in women and gender studies, or a master’s degree in a related discipline from a recognized university. Applicants must have obtained an average of A– or better in the master’s program.
- Letter of intent outlining the academic goals the applicant wishes to pursue in the program, two letters of recommendation, a writing sample, and transcripts from all post-secondary institutions.

Program Requirements

- The student’s program of study must be approved by the Women and Gender Studies Institute.
- All coursework should normally be completed by the end of Year 1 of PhD study. Students must complete 3.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE in Women and Gender Studies (WGS5000H and WGS5001H). Students who have already taken these courses, or their equivalent, will be required to enrol in alternate course selections, with institute approval.
  - 0.5 elective FCE in Women and Gender Studies.
  - 1.5 FCEs offered in Women and Gender Studies or by other graduate units and chosen in consultation with the student’s faculty advisor.
- WGS Research Seminar Series. Normally, students enrol in WGS2000H (0.0 FCE, Credit/No Credit) in Year 1 of their PhD program. Attendance at 80% of the seminars is required in Year 1. After completion of this course, students are recommended to attend this seminar regularly, as a crucial part of their graduate education. In addition, students must present their research in the seminar series once before graduation after they have achieved candidacy, a milestone captured by WGS2001H (0.0 FCE, Credit/No Credit).
- Comprehensive examinations:
  - Completion of two comprehensive exams, one in a primary (major) and one in a secondary (minor) area of study, defined in consultation with the advisor and other committee members.
  - The dissertation proposal, an integral part of the comprehensive exams, should be defended and accepted no later than August 31 of Year 2.
  - Examinations are marked on a pass/fail basis. Candidates are allowed two attempts to pass a comprehensive examination. A failure to pass on the second attempt results either in the student’s voluntary withdrawal from the program, or a recommendation by the institute for termination of the student’s registration in the program.
  - The major comprehensive examination should be completed by January 31 of Year 2. The minor comprehensive examination should be completed by May 31 of Year 2.
- Completion of a PhD dissertation based on original research conducted by the candidate on an approved topic in women and gender studies, and successful defence at the SGS Final Oral Examination.
- Each student will meet at least annually with their supervisor and other doctoral committee members to review academic progress and to consult about future directions.

Program Length

4 years

Time Limit

6 years

PhD Program (Direct-Entry)

Minimum Admission Requirements

- Applicants are admitted under the General Regulations of the School of Graduate Studies. Applicants must also satisfy the Women and Gender Studies Institute’s additional admission requirements stated below.
- In exceptional cases, direct-entry admission is offered to outstanding students with a bachelor’s degree in women and gender studies or a related area, from a recognized university. Direct-entry students must have a cumulative average of A or better. Applicants must also have obtained an average equivalent to an A– or better in their final year of undergraduate study.
- Letter of intent outlining the academic goals the applicant wishes to pursue in the program, two letters of recommendation, a writing sample, and transcripts from all post-secondary institutions.

Program Requirements

- The student’s program of study must be approved by the Women and Gender Studies Institute.
- All coursework should normally be completed by the end of Year 2 of PhD study. Students must complete 5.0 full-course equivalents (FCEs) as follows:
  - 1.0 FCE in Women and Gender Studies (WGS5000H and WGS5001H).
  - 2.0 elective FCEs in Women and Gender Studies.
  - 2.0 FCEs offered in Women and Gender Studies or by other graduate units and chosen in consultation with the student’s faculty advisor.
- WGS Research Seminar Series. Normally, students will enrol in WGS2000H (0.0 FCE, Credit/No Credit) in Year 1 of their PhD program. Attendance at 80% of the seminars is required in Year 1. After completion of this course, students are recommended to attend this seminar regularly, as a crucial part of their graduate education. In addition, students must present their research in the seminar series once before graduation after they have achieved candidacy, a milestone captured by WGS2001H (0.0 FCE, Credit/No Credit). Students will enrol in WGS2001H during the session in which they plan to present.
Comprehensive examinations:
- Completion of two comprehensive exams, one in a primary (major) and one in a secondary (minor) area of study, defined in consultation with the advisor and other committee members.
- The dissertation proposal, an integral part of the comprehensive exams, should be defended and accepted no later than December 31 of Year 3.
- Examinations are marked on a pass/fail basis. Candidates are allowed two attempts to pass a comprehensive examination. A failure to pass on the second attempt results either in the student’s voluntary withdrawal from the program or a recommendation by the institute for termination of the student’s registration in the program.
- The major comprehensive examination should be completed by May 31 of Year 2. The minor comprehensive examination should be completed by September 30 of Year 3.

Completion of a PhD dissertation based on original research conducted by the candidate on an approved topic in women and gender studies, and successful defence at the SGS Final Oral Examination.

Each student will meet at least annually with their supervisor and other doctoral committee members to review academic progress and to consult about future directions.

Program Length
5 years

Time Limit
7 years

Women and Gender Studies: Women and Gender Studies MA, PhD Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>WGS1004H</td>
<td>Special Topics in Feminist Theory</td>
</tr>
<tr>
<td>WGS1005Y</td>
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