For admission and application information, contact the graduate unit directly. Contact information and Web site addresses are listed in each unit's entry.
Mission Statement

The mission of the School of Graduate Studies is to promote excellence in graduate education and research University-wide and ensure consistency and high standards across the divisions. Sharing responsibility for graduate studies with graduate units and divisions, and operating through a system of collegial governance, consultation and decanal leadership, SGS defines and administers university-wide regulations for graduate education.

SGS also provides expertise, advice and information; oversees the design and delivery of programs; organizes reviews and develops performance standards; supports diversity, equity, fairness, and ethical conduct in graduate education; organizes services and financial assistance to graduate students; encourages a close and positive relationship between research and graduate instruction; and represents the cause of graduate education at the University of Toronto in the wider academic and general community.

Officers of the School of Graduate Studies

Dean of Graduate Studies and Vice-Provost, Graduate Education
B. Corman, AB, AM, PhD

Vice-Dean, Programs
E. M. Smyth, BA, BEd, MA, EdD

Vice-Dean, Students
J. J. B. Smith, BA, MA, PhD

Dean’s Welcome

I am delighted to welcome you to the many graduate communities of the University of Toronto. We are proud of our accomplishments as a centre for graduate education that integrates advanced scholarship and research into every degree program. Please use this site to learn more about the excellent programs we offer.

Here at the largest graduate school in Canada, over 13,000 graduate students are studying in an extraordinary range of scholarly fields. The diversity of our departments means that the focus and expertise that you seek is very likely to be found within the graduate offerings at U of T. We also offer a number of interdisciplinary collaborative programs.

We welcome graduate applicants from around the world, inviting those who are successful to participate in advanced study that links research and scholarship with graduate training. We offer you a scholarly community of superb quality, one of the best academic library systems in the world, and a lively intellectual environment that sits within a remarkably cosmopolitan city.

You can investigate graduate studies at the University of Toronto more closely through the Web site: www.sgs.gradschool.utoronto.ca. That site is a gateway to the fields of study that you may choose.

Welcome to the University of Toronto’s graduate school, where your intellect and aspirations can thrive.

With my best wishes for your academic success,

Brian Corman
Dean of Graduate Studies and Vice-Provost, Graduate Education
About this Calendar

The School of Graduate Studies Calendar is edited annually. It is posted on the SGS Web site at www.sgs.utoronto.ca in May. Published copies are printed by August and may be purchased using the online order form on the SGS Web site or in person from the SGS office at 63 St. George Street.

The School of Graduate Studies Calendar describes the broad range of graduate study opportunities available at the University of Toronto. It also contains policies and procedures related to graduate studies. The calendar is divided into six sections.

Section 1
General Regulations outlines admission, registration, enrolment, grading, and graduation policies and procedures. Selected policies and codes established by the University are also featured in this section with links to the full policy which is accessible online.

Section 2
Degree Regulations discusses general admission and degree requirements for graduate degree programs. More details about each program are outlined in section 6.

Section 3
Fees and Financial Support
Fees schedules, types of fees, and fees for graduate student categories are explained. Financial Support describes awards, assistantships, grants, and loans available to graduate students.

Section 4
Services for Students outlines University services available to enhance graduate life at U of T. Look for student housing information in this section.

Section 5
Graduate Faculty members are appointed in one of three categories: full members, members emeriti, and associate members. Faculty with appointments as full members and members emeriti are listed alphabetically, together with their home unit affiliation. Associate members are listed in the individual graduate unit entries in section 6.

Section 6
Graduate Programs. The largest component of the calendar features a comprehensive list of the graduate units that offer degree programs. The term “graduate unit” refers to a department, centre, or institute.

The section is divided into three categories:
1. degree programs by graduate unit
2. collaborative programs
3. joint programs

Each graduate unit entry contains valuable information about the programs it offers together with admission and program requirements and courses of instruction. Faculty who are affiliated with the graduate unit are listed by appointment category.

For additional details about a graduate program, visit the unit’s Web site and/or consult the department’s handbook.
Important Notices

Changes in Programs of Study and/or Courses

The programs of study that the School of Graduate Studies Calendar lists and describes are available for the academic year September 1, 2009 to August 31, 2010. They may not necessarily be available in later years. If the University or the School must change the content of programs of study or withdraw them, all reasonable possible advance notice and alternative instruction will be given. However, the University will not be liable for any loss, damages, or other expenses that such changes might cause.

For each program of study offered by the University through the School of Graduate Studies, the courses necessary to complete the minimum requirements of the program will be made available annually. However, we must reserve the right otherwise to change the content of courses, instructors and instructional assignments, enrolment limitations, prerequisites and co-requisites, grading policies, requirements for promotion, and timetables without prior notice.

Regulations and Policies

As members of the University of Toronto community, students assume certain responsibilities and are guaranteed certain rights and freedoms.

The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The rules and regulations of the School are listed in this calendar. In applying to the School, the student assumes certain responsibilities to the University and the School and, if admitted and registered, shall be subject to all rules, regulations and policies cited in the calendar, as amended from time to time.

All University policies can be found at www.governingcouncil.utoronto.ca/policies.htm. Those which are of particular importance to students are:

- Code of Behaviour on Academic Matters
- Code of Student Conduct
- Grading Practices Policy
- Policy on Official Correspondence with Students
- More information about students’ rights and responsibilities can be found at www.students.utoronto.ca/The_Basics/Rights_and_Rules.htm.

Enrolment Limitations

The University makes every reasonable effort to plan and control enrolment to ensure that all of our students are qualified to complete the programs to which they are admitted and to strike a practicable balance between enrolment and available instructional resources. Sometimes such a balance cannot be struck and the number of qualified students exceeds the instructional resources that we can reasonably make available while at the same time maintaining the quality of instruction. In such cases, we must reserve the right to limit enrolment in the programs, courses, or sections listed in the calendar, and to withdraw courses or sections for which enrolment or resources are insufficient. The University will not be liable for any loss, damages, or other expenses that such limitations or withdrawals might cause.

Copyright in Instructional Settings

If a student wishes to tape-record, photograph, video-record, or otherwise reproduce lecture presentations, course notes or other similar materials provided by instructors, he or she must obtain the instructor’s written consent beforehand. Otherwise, all such reproduction is an infringement of copyright and is absolutely prohibited. In the case of private use by students with disabilities, the instructor’s consent will not be unreasonably withheld.

Person ID (Student Number)

Each student at the University is assigned a unique identification number. The number is confidential. The University, through the Policy on Access to Student Academic Records, strictly controls access to Person ID numbers. The University assumes and expects that students will protect the confidentiality of their Person ID’s.

Notice of Collection of Personal Information

The University of Toronto respects your privacy. Personal information that you provide to the University is collected pursuant to section 2(14) of the University of Toronto Act, 1971. It is collected for the purpose of administering admission, registration, academic programs, university-related student activities, activities of student societies, financial assistance and awards, graduation and university advancement, and for the purpose of statistical reporting to government agencies. At all times it will be protected in accordance with the Freedom of Information and Protection of Privacy Act. If you have questions, please refer to www.utoronto.ca/privacy or contact the University Freedom of Information and Protection of Privacy Coordinator at 416-946-7303, McMurrich Building, Room 201, 12 Queen’s Park Crescent West, Toronto, ON, MSS 1A8.

An expanded version of this Notice can be found at www.fippa.utoronto.ca/policy/nocz.htm

Fees and Other Charges

The University reserves the right to alter the fees and other charges described in the calendar.
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<td>M August 3</td>
<td>Civic Holiday</td>
</tr>
<tr>
<td>M August 10</td>
<td>Registration for September session begins</td>
</tr>
<tr>
<td>W August 12</td>
<td>Undergraduate course enrolment begins (1)</td>
</tr>
<tr>
<td>F August 28</td>
<td>Last date for payment of tuition fees to meet registration deadline</td>
</tr>
<tr>
<td>M September 7</td>
<td>Labour Day</td>
</tr>
<tr>
<td>W September 9</td>
<td>Most formal graduate courses and seminars begin in the week of September 9 (2)</td>
</tr>
<tr>
<td>F September 11</td>
<td>Registration for September session ends; after this date, a late registration fee will be assessed</td>
</tr>
<tr>
<td>T September 15</td>
<td>Final date to submit PhD theses to SGS to avoid fee charges for 2009-2010</td>
</tr>
<tr>
<td>T September 15</td>
<td>Last day to enrol in undergraduate F and Y courses (1)</td>
</tr>
<tr>
<td>September 18</td>
<td>Course work must be completed and grades submitted for summer session courses and extended courses (3)</td>
</tr>
<tr>
<td>W September 23</td>
<td>Summer Session grades available for viewing by students on the Student Web Service</td>
</tr>
<tr>
<td>F October 2</td>
<td>Final date for receipt of degree recommendations and submission of any required theses for master's degrees for Fall Convocation (4)</td>
</tr>
<tr>
<td>F October 2</td>
<td>Final date to submit final PhD thesis for Fall Convocation</td>
</tr>
<tr>
<td>W October 7</td>
<td>Final date to add full year and September session courses</td>
</tr>
<tr>
<td>M October 12</td>
<td>Thanksgiving Day</td>
</tr>
<tr>
<td>T November 3</td>
<td>Last day to withdraw from undergraduate F courses (1)</td>
</tr>
<tr>
<td>W November 4</td>
<td>Final date to drop September session full- or half-courses without academic penalty</td>
</tr>
<tr>
<td>November</td>
<td>Fall Convocation information and dates are posted at <a href="http://www.convocation.utoronto.ca">www.convocation.utoronto.ca</a>, choose Fall</td>
</tr>
<tr>
<td>M December 21</td>
<td>Winter break begins (for last day of classes before Winter break, consult graduate units concerned)</td>
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<th>Date</th>
<th>Event</th>
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<tbody>
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<td>M January 4</td>
<td>Most formal graduate courses and seminars begin in the week of January 4 (2)</td>
</tr>
<tr>
<td>F January 8</td>
<td>Final date for registration of students beginning program in January session; after this date, a late registration fee will be assessed</td>
</tr>
<tr>
<td>S January 10</td>
<td>Last day to enrol in undergraduate S courses (1)</td>
</tr>
<tr>
<td>F January 15</td>
<td>Final date to submit PhD theses without fee payment for January session</td>
</tr>
<tr>
<td>F January 15</td>
<td>Course work must be completed and grades submitted for September session courses (3)</td>
</tr>
<tr>
<td>F January 15</td>
<td>Final date to add January session courses (3)</td>
</tr>
<tr>
<td>W January 20</td>
<td>September session grades available for viewing by students on the Student Web Service</td>
</tr>
<tr>
<td>F January 29</td>
<td>Final date for receipt of degree recommendations and submission of any required theses for March or June graduation for master’s students without fees being charged for the January session (4)</td>
</tr>
<tr>
<td>F January 29</td>
<td>Final date for all students to request that their degrees be conferred in absentia in March</td>
</tr>
<tr>
<td>F January 29</td>
<td>September dual registrants must be recommended for the master’s degree by this date to maintain their PhD registration (4)</td>
</tr>
<tr>
<td>M February 15</td>
<td>Family Day</td>
</tr>
<tr>
<td>M February 15</td>
<td>Last day to withdraw from undergraduate Y courses (1)</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>F February 26</td>
<td>Final date to drop full-year or January session courses without academic penalty (5)</td>
</tr>
<tr>
<td>March</td>
<td>March graduation in absentia information is posted at <a href="http://www.convocation.utoronto.ca">www.convocation.utoronto.ca</a>, choose March in absentia</td>
</tr>
<tr>
<td>S March 7</td>
<td>Last day to withdraw from undergraduate S courses (1)</td>
</tr>
<tr>
<td>F April 2</td>
<td>Good Friday</td>
</tr>
<tr>
<td>F April 23</td>
<td>For students obtaining degrees at June Convocation, course work must be completed and grades submitted for full-year and January session courses</td>
</tr>
<tr>
<td>F April 23</td>
<td>Final date for receipt of degree recommendations and submission of any required theses for master's degrees for June Convocation (4)</td>
</tr>
<tr>
<td>F April 23</td>
<td>Final date for submission of final PhD thesis for students whose degrees are to be conferred at the June Convocation</td>
</tr>
<tr>
<td>F April 23</td>
<td>Final date for degree recommendations of January dual registrants for the master's degree to maintain their PhD registration (4)</td>
</tr>
<tr>
<td>May</td>
<td>For first day of summer classes, consult graduate unit concerned</td>
</tr>
<tr>
<td>F May 7</td>
<td>Final date for registration for May session</td>
</tr>
<tr>
<td>F May 14</td>
<td>Final date to enrol in May-June or May-August session courses</td>
</tr>
<tr>
<td>F May 14</td>
<td>Course work must be completed and grades submitted for full-year and January session courses (except for extended courses) (3)</td>
</tr>
<tr>
<td>W May 19</td>
<td>January Session grades available for viewing by students on the Student Web Service</td>
</tr>
<tr>
<td>M May 24</td>
<td>Victoria Day</td>
</tr>
<tr>
<td>June</td>
<td>Spring Convocation Information and Dates are posted at <a href="http://www.convocation.utoronto.ca">www.convocation.utoronto.ca</a>, choose Spring</td>
</tr>
<tr>
<td>F June 4</td>
<td>Final date to drop May/June F section courses without academic penalty</td>
</tr>
<tr>
<td>F June 25</td>
<td>Final date to enrol in July-August courses (6)</td>
</tr>
<tr>
<td>F June 25</td>
<td>Final date to drop May-August session Y section courses without academic penalty</td>
</tr>
<tr>
<td>TH July 1</td>
<td>Canada Day Holiday</td>
</tr>
<tr>
<td>F July 23</td>
<td>Final date to drop July-August S section courses without academic penalty</td>
</tr>
<tr>
<td>F July 23</td>
<td>Course work must be completed and grades submitted for May/June F Section Courses (3)</td>
</tr>
<tr>
<td>W July 28</td>
<td>Grades for May/June F Section Courses available for viewing by students on the Student Web Service</td>
</tr>
</tbody>
</table>

**Notes**

(1) Graduate students may only enrol in undergraduate courses with the approval of their supervisor or graduate unit. Students are responsible for meeting the deadlines and requirements of the undergraduate course as presented in class and in the undergraduate division's calendar. Graduate students will be graded under the graduate grading scale.

(2) The precise dates of commencement of courses are determined by the graduate units; students are urged to contact the relevant graduate units for information. The University policy states that the first day of classes in the September session in all teaching divisions should not be scheduled on the first and second days of Rosh Hashanah (from 1 1/2 hours before sunset on Friday, September 18 to about 1 1/2 hours after sunset on Sunday, September 20) or on Yom Kippur (from about 1 1/2 hours before sunset on Sunday, September 27 to about 1 1/2 hours after sunset on Monday, September 28).

(3) Graduate units may establish earlier deadlines for completion of course work and may prescribe penalties for late completion of work and for failure to complete work, provided that these penalties are announced at the time the instructor makes known to the class the methods by which student performance shall be evaluated.

(4) For final dates for completing degree requirements, students should consult their own departments.

(5) Graduate units may establish earlier deadlines to add/drop courses. Please note that the last date to cancel a course or registration with no academic penalty is not the same as the last date to be eligible for a refund.

(6) Students starting their program in the summer and OISE students are required to register by this date by paying the minimum tuition amount stated in their invoice.
## Divisional Structure

The graduate units (departments, centres, and institutes) are allocated into four divisions. Collaborative (interdisciplinary) Programs are designated as (CP); Joint programs are designated as (JP).

### Division I - Humanities

- Ancient and Medieval Philosophy (CP)
- Ancient Greek and Roman History (CP)
- Art
- Book History and Print Culture (CP)
- Cinema Studies
- Classics
- Comparative Literature
- Drama
- East Asian Studies
- Editing Medieval Texts (CP)
- English
- French Language and Literature
- Germanic Languages and Literatures
- History
- History and Philosophy of Science and Technology
- Jewish Studies (CP)
- Italian Studies
- Linguistics
- Medieval Studies
- Museum Studies
- Music
- Near and Middle Eastern Civilizations
- Philosophy
- Religion
- Slavic Languages and Literatures
- South Asian Studies (CP)
- Spanish
- Women and Gender Studies
- Women and Gender Studies (CP)

### Division II - Social Sciences

- Adult Education and Counselling Psychology
- Anthropology
- Architecture, Landscape, and Design
- Asia-Pacific Studies (CP)
- Community Development (CP)
- Comparative, International and Development Education (CP)
- Criminology
- Curriculum, Teaching and Learning
- Developmental Science (CP)
- Dynamics of Global Change (CP)
- Economics
- Ethnic and Pluralism Studies (CP)
- European, Russian, and Eurasian Studies
- Financial Economics (JP)
- Geography
- Global Affairs
- Human Development and Applied Psychology
- Industrial Relations and Human Resources
- Information
- International Relations (CP)
- Law
- Management
- Management and Economics (CP)
- Political Science
- Public Policy and Governance
- Sexual Diversity Studies (CP)
- Social Work
- Sociology
- Sociology and Equity Studies in Education
- Theory and Policy Studies in Education
- Workplace Learning and Social Change (CP)
Divisional Structure

**Division III - Physical Sciences**

- Advanced Design and Manufacturing (JP)
- Aerospace Science and Engineering
- Astronomy and Astrophysics
- Astrophysics (CP)
- Biomedical Engineering
- Biomedical Engineering (CP)
- Chemical Engineering and Applied Chemistry
- Chemistry
- Civil Engineering
- Computer Science
- Electrical and Computer Engineering
- Environment
- Environment and Health (CP)
- Environmental Engineering (CP)
- Environmental Studies (CP)
- Geology
- Geology and Physics (CP)
- Knowledge Media Design (CP)
- Materials Science and Engineering
- Mathematical Finance
- Mathematics
- Mechanical and Industrial Engineering
- Optics (CP)
- Physics
- Statistics
- Theoretical Astrophysics

**Division IV - Life Sciences**

- Aboriginal Health (CP)
- Addiction Studies (CP)
- Aging, Palliative and Supportive Care Across the Life Course (CP)
- Biochemistry
- Bioethics (CP)
- Biomedical Toxicology (CP)
- Biomolecular Structure (CP)
- Biotechnology (JP)
- Cardiovascular Sciences (CP)
- Cell and Systems Biology
- Dentistry
- Developmental Biology (CP)
- Doctor of Medicine/Doctor of Philosophy
- Ecology and Evolutionary Biology
- Exercise Sciences
- Forestry
- Genome Biology and Bioinformatics (CP)
- Global Health (CP)
- Health Policy, Management and Evaluation
- Health Services and Policy Research (CP)
- Immunology
- Laboratory Medicine and Pathobiology
- Medical Biophysics
- Medical Science
- Molecular Genetics
- Neuroscience (CP)
- Nursing Science
- Nutritional Sciences
- Occupational Science and Occupational Therapy
- Pharmaceutical Sciences
- Pharmacology and Toxicology
- Physical Therapy
- Physiology
- Psychology
- Public Health Sciences
- Rehabilitation Science
- Speech-Language Pathology
- Women's Health (CP)
## Degrees by Graduate Unit

<table>
<thead>
<tr>
<th>Graduate Unit</th>
<th>Master's Degrees</th>
<th>Doctoral Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Education &amp; Counselling Psychology</td>
<td>MA, MEd</td>
<td>EdD, PhD</td>
</tr>
<tr>
<td>Advanced Design &amp; Manufacturing</td>
<td>MEngDM</td>
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</tr>
<tr>
<td>Aerospace Science &amp; Engineering</td>
<td>MASc, MEng</td>
<td>PhD</td>
</tr>
<tr>
<td>Anthropology</td>
<td>MA, MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Architecture, Landscape, &amp; Design</td>
<td>MArch, MLA, MUD</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>MA, MVS</td>
<td>PhD</td>
</tr>
<tr>
<td>Astronomy &amp; Astrophysics</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>MASc, MHSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>MBIotech</td>
<td></td>
</tr>
<tr>
<td>Cell &amp; Systems Biology</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Chemical Engineering &amp; Applied Chemistry</td>
<td>MASc, MEng</td>
<td>PhD</td>
</tr>
<tr>
<td>Chemistry</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Cinema Studies</td>
<td>MA</td>
<td></td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>MASc, MEng</td>
<td>PhD</td>
</tr>
<tr>
<td>Classics</td>
<td>MA</td>
<td>PhD</td>
</tr>
<tr>
<td>Comparative Literature</td>
<td>MA</td>
<td>PhD</td>
</tr>
<tr>
<td>Computer Science</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Criminology</td>
<td>JD/MA, MA</td>
<td>PhD</td>
</tr>
<tr>
<td>Curriculum, Teaching &amp; Learning</td>
<td>MA, MEd, MT</td>
<td>PhD</td>
</tr>
<tr>
<td>Dentistry</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Doctor of Medicine/ Doctor of Philosophy</td>
<td>MD/PhD</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Graduate Unit</th>
<th>Master's Degrees</th>
<th>Doctoral Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drama</td>
<td>MA</td>
<td>PhD</td>
</tr>
<tr>
<td>East Asian Studies</td>
<td>MA</td>
<td>PhD</td>
</tr>
<tr>
<td>Ecology &amp; Evolutionary Biology</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Economics</td>
<td>JD/MA, MA</td>
<td>JD/PhD</td>
</tr>
<tr>
<td>Electrical &amp; Computer Engineering</td>
<td>MASc, MEng, MEngTel</td>
<td>PhD</td>
</tr>
<tr>
<td>English</td>
<td>JD/MA, MA</td>
<td>PhD</td>
</tr>
<tr>
<td>Environment</td>
<td>MEnvSc</td>
<td></td>
</tr>
<tr>
<td>European, Russian &amp; Eurasian Studies</td>
<td>JD/MA, MA</td>
<td>MA</td>
</tr>
<tr>
<td>Exercise Sciences</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Financial Economics</td>
<td>MFE</td>
<td></td>
</tr>
<tr>
<td>Forestry</td>
<td>MFC, MScF</td>
<td>PhD</td>
</tr>
<tr>
<td>French Language &amp; Literature</td>
<td>MA</td>
<td>PhD</td>
</tr>
<tr>
<td>Geography</td>
<td>MA, MSc, MScPl, MUDS</td>
<td>PhD</td>
</tr>
<tr>
<td>Geology</td>
<td>MASc, MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Germanic Languages &amp; Literatures</td>
<td>MA</td>
<td>PhD</td>
</tr>
<tr>
<td>Global Affairs</td>
<td>MGA</td>
<td></td>
</tr>
<tr>
<td>Health Policy, Management &amp; Evaluation</td>
<td>MHI, MHS, MHS/MN, MHS/MSW, MMI, MT, MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>History</td>
<td>MA</td>
<td>PhD</td>
</tr>
<tr>
<td>History &amp; Philosophy of Science &amp; Technology</td>
<td>MA</td>
<td>PhD</td>
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</tbody>
</table>
## Degree Programs by Graduate Unit

<table>
<thead>
<tr>
<th>Graduate Unit</th>
<th>Master's Degrees</th>
<th>Doctoral Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development &amp; Applied Psychology</td>
<td>MA, MEd</td>
<td>EdD, PhD</td>
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<tr>
<td>Immunology</td>
<td>MSc</td>
<td>PhD</td>
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<tr>
<td>Industrial Relations &amp; Human Resources</td>
<td>MIRHR</td>
<td>PhD</td>
</tr>
<tr>
<td>Information</td>
<td>MI, JD/MI, MMSt</td>
<td>PhD</td>
</tr>
<tr>
<td>Italian Studies</td>
<td>MA, PhD</td>
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</tr>
<tr>
<td>Laboratory Medicine &amp; Pathobiology</td>
<td>MSc, PhD</td>
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</tr>
<tr>
<td>Law</td>
<td>LLM, MSL, SJD</td>
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<tr>
<td>Linguistics</td>
<td>MA, PhD</td>
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</tr>
<tr>
<td>Management</td>
<td>BASc/MBA, JD/MA, MA/MBA, MBA, MF</td>
<td>PhD</td>
</tr>
<tr>
<td>Materials Science &amp; Engineering</td>
<td>MASc, MEng</td>
<td>PhD</td>
</tr>
<tr>
<td>Mathematical Finance</td>
<td>MMF</td>
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<td>Mathematics</td>
<td>MSc, PhD</td>
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<tr>
<td>Mechanical &amp; Industrial Engineering</td>
<td>MASc, MEng</td>
<td>PhD</td>
</tr>
<tr>
<td>Medical Biophysics</td>
<td>MSc, PhD</td>
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<tr>
<td>Medical Science</td>
<td>MHS, PhD</td>
<td></td>
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<tr>
<td>Medieval Studies</td>
<td>MA, PhD</td>
<td></td>
</tr>
<tr>
<td>Molecular Genetics</td>
<td>MSc, PhD</td>
<td></td>
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<tr>
<td>Music</td>
<td>MA, MMus, DMA, PhD</td>
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<tr>
<td>Near &amp; Middle Eastern Civilizations</td>
<td>MA, PhD</td>
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<tr>
<td>Nursing Science</td>
<td>MHS/MN, PhD</td>
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<tr>
<td>Nutritional Sciences</td>
<td>MSc, PhD</td>
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</table>

<table>
<thead>
<tr>
<th>Graduate Unit</th>
<th>Master's Degrees</th>
<th>Doctoral Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Science &amp; Occupational Therapy</td>
<td></td>
<td>MScOT</td>
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<tr>
<td>Pharmaceutical Sciences</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Pharmacology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philosophy</td>
<td>MA, JD/PhD</td>
<td></td>
</tr>
<tr>
<td>Physical Therapy</td>
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<td>MScPT</td>
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<tr>
<td>Physics</td>
<td></td>
<td>MSc, PhD</td>
</tr>
<tr>
<td>Physiology</td>
<td></td>
<td>MSc, PhD</td>
</tr>
<tr>
<td>Political Science</td>
<td>JD/MA, MA, JD/PhD</td>
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</tr>
<tr>
<td>Professional Graduate Programs Centre (Mississauga)</td>
<td></td>
<td>MMPA</td>
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<tr>
<td>Psychology</td>
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<td>MA, MPH, MSc, MScCH</td>
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<tr>
<td>Public Health Sciences</td>
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<tr>
<td>Public Policy &amp; Governance</td>
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<td>MPP</td>
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<td>Rehabilitation Science</td>
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<td>Religion</td>
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<td>MA, PhD</td>
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<tr>
<td>Slavic Languages &amp; Humanities</td>
<td></td>
<td>MA, PhD</td>
</tr>
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<td>Social Work</td>
<td>JD/MSW, MHS/MSW, MSW</td>
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<tr>
<td>Sociology</td>
<td></td>
<td>MA, PhD</td>
</tr>
<tr>
<td>Sociology &amp; Equity Studies in Education</td>
<td></td>
<td>MA, EdD, PhD</td>
</tr>
<tr>
<td>Spanish</td>
<td></td>
<td>MA, PhD</td>
</tr>
<tr>
<td>Speech-Language Pathology</td>
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<td>MHS, MSc, PhD</td>
</tr>
<tr>
<td>Statistics</td>
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<td>MSc, PhD</td>
</tr>
<tr>
<td>Theory &amp; Policy Studies in Education</td>
<td></td>
<td>MA, EdD, PhD</td>
</tr>
<tr>
<td>Women &amp; Gender Studies</td>
<td></td>
<td>MA</td>
</tr>
</tbody>
</table>

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Exemptions

The Council of the School of Graduate Studies has the power to waive the application of a regulation in individual cases. Such exemptions are granted only in exceptional circumstances and require the favourable recommendation of the graduate unit and of the School of Graduate Studies Admissions and Programs Committee.

Introduction

The University of Toronto began in 1827 as King's College at York, then the name of Toronto. Although master's degrees were being awarded by the middle of the nineteenth century, and the doctorate was established in the 1890s, the School of Graduate Studies did not become a distinct academic division within the University of Toronto until 1922. In 1965 the School was reorganized and expanded. Today it comprises about 80 departments, centres, and institutes, offering approximately 150 different graduate programs.

Most graduate units, although large enough to have a diversity of graduate courses, are small enough to allow students to have a sense of belonging to a recognized community of scholars, colleagues, and friends. The goal of graduate studies at the University of Toronto is to provide students with the best material and human resources to learn the methods and standards of research necessary to work professionally at the frontiers of knowledge. Research is central to graduate studies, particularly at the doctoral level. Research-oriented training conveys the importance of keeping pace with a subject, the knowledge of which is always changing. It fosters intellectual curiosity and a creative response to problems. It encourages the student to communicate original discoveries effectively.

In the educational process, the graduate student comes to grips with the phenomenon of emerging knowledge. The process enriches the individual as well as the community participating in the exercise. The training and experience is valuable for all areas of work, whether one is teaching in a university, working in government, industry, private enterprise, or pursuing a professional career.

Research-oriented graduate training provides the means to embark on a lifelong voyage of intellectual discovery, an opportunity and challenge that gives graduate studies pre-eminence in formal education.
Organization of the School of Graduate Studies

The School of Graduate Studies is responsible for the oversight of all graduate programs in the University of Toronto and for developing and implementing appropriate regulations and operating procedures for admissions, programs of study, and completion of degree requirements. Individual graduate units are responsible for maintenance of the official academic records of graduate students.

According to its Constitution, the School of Graduate Studies is governed by a Council and is organized into four divisions. Each of the departments, centres, and institutes (referred to generally as graduate units) belongs to one of the divisions.

The Divisions
Division I – Humanities
Division II – Social Sciences
Division III – Physical Sciences
Division IV – Life Sciences

Graduate Education Council

The Graduate Education Council is an academic advisory body reporting to the Governing Council of the University of Toronto. The Council consists of 35 elected members and numerous ex-officio members. Each division elects five faculty members and three students to the Council; the President of the Graduate Students' Union is an ex-officio member. There are three administrative staff seats. The Council is chaired by the Dean.

The Council is primarily responsible for determining policies and regulations affecting the administration and operation of graduate studies, determining admission and program requirements for all graduate programs, and for advising Governing Council on initiatives in graduate studies. The Council is concerned with the quality of graduate education across the university as a whole.

Graduate Units

Graduate units (including departments, centres, and institutes) offer degree programs and courses and conduct research.

Each graduate student is enrolled in one of the graduate departments/centres/institutes which offer graduate study. Interdisciplinary studies may be undertaken within collaborative programs, but a student must first register in a home graduate unit. The graduate unit is responsible for ensuring that each student is admitted and enrolled in an appropriate program of studies and is responsible for thesis/research supervision in conformity with the policies and procedures of the School of Graduate Studies.

The Coordinator of Graduate Studies is responsible for the administration of graduate affairs within the unit, under the direction of the chair or director.

School of Graduate Studies Centres and Institutes

Historically, a substantial number of centres and institutes with interdisciplinary foci were administered within the School of Graduate Studies. Most of these administrative units have been relocated to other Faculties, such as Arts and Science, Medicine, or OISE. Please contact the Office of the Vice-Dean, Programs, School of Graduate Studies, for additional information.

Graduate Programs

Graduate programs are listed alphabetically in the Degree Programs by Graduate Unit section of this Calendar. They are also described on the University of Toronto Web site at www.gradschool.utoronto.ca.

Degree Programs

A diverse range of both research-oriented and professional programs are offered at both the master's and doctoral levels.

Collaborative Programs

The School of Graduate Studies currently offers approximately 40 graduate collaborative programs. Collaborative programs emerge from cooperation between two or more graduate units. The collective experience of the participating graduate units provides the student with a broader base from which to explore a novel interdisciplinary area or some special development in a particular discipline.

The student must be admitted to, and enrol in, one of the collaborating graduate units and must fulfill all the requirements for the degree in the home unit and any additional requirements of the collaborative program. Each collaborative program is designed to allow a focus in the area of specialty. On successful completion of the program, the student receives a transcript notation.

Combined Programs

The University of Toronto offers a number of combined programs involving two existing degree programs in different disciplines. The combination may comprise two graduate programs or a graduate and an undergraduate program. In most cases, the combination involves at least one professionally oriented program.

Diploma Programs

A limited number of graduate diploma programs are offered.

Conjoint Programs

The University of Toronto and the Toronto School of Theology offers a limited number of graduate conjoint programs.

Joint Programs

The University of Toronto participates in several joint degree programs involving partnership between two or more graduate units or universities.
Graduate Faculty
Responsibility for directing all elements of graduate teaching and supervision rests with members of the graduate faculty.

Appointments to the graduate faculty are made by the chairs and directors of the graduate units in the School. Appointments are made in one of three categories:
1. Associate Member
2. Full Member
3. Member Emeritus

Graduate faculty membership permits an instructor to perform specified functions.

An associate member may generally be permitted to teach graduate courses, supervise master's theses, assist in the supervision of doctoral theses and serve as a voting member of a final oral examination but not as chair.

A full member may perform all duties of an associate member as well as act as major supervisor of a doctoral thesis and chair of a final oral examination.

A member emeritus may be permitted to chair a final oral examination and carry out one or more of the duties of a full member. Members emeriti may continue to serve as major supervisor of a doctoral or master's thesis but only take on new supervision with the approval of the graduate chair or director.

Student Categories
The University offers admissions to two categories of graduate students:
1. Degree or Diploma Student
2. Special (non-degree) Student

Degree or Diploma Student
A degree or diploma student is registered in a graduate program in the School of Graduate Studies.

A degree student who has completed all requirements for the PhD degree exclusive of thesis research will be designated as a doctoral candidate in the School of Graduate Studies.

Degree or Diploma Student on Probation
When credentials are from a university where the program of study cannot readily be appraised by the graduate unit, the applicant may be required to register on probation for a period of at least 4 months and not more than 12 months. Applicants must hold a recognized degree with appropriate standing.

After 4 months, but before the end of 12 months, the graduate unit may wish to recommend to the School that the student's probationary status be removed. Work completed during the period on probation will be credited towards the degree program. Students whose probationary status is not removed may remain registered on probation for the remainder of the academic year but will not be permitted to continue after that.

Special (non-degree) Student
Two categories of Special Students are described below. Special Students are not enrolled in a program of study which may lead to a degree. All Special Students must be enrolled in at least one graduate course; some may be enrolled in both undergraduate and graduate courses.

Special Student—Full Time
Students who are changing disciplines or require preparatory work may be admitted as full-time Special Students and enrol in a full-time program of study not leading to a degree.

Special Student—Part Time
Students wishing to take one or two graduate courses not for degree credit are admitted as part-time Special Students. Those accepted with less than mid-B standing may not apply for admission to a degree program at a later date.
Admission Standards and Procedures

The School of Graduate Studies’ admission standards and procedures are designed so that students entering a graduate program may normally have the capacity and preparation necessary to meet the challenge of the program effectively. The regulations for admission specify minimal requirements only. Many graduate units have additional requirements. Meeting the minimal requirements of the graduate unit and the School does not guarantee admission.

The University reserves the right to determine whether or not credentials of other degree-granting institutions meet the standards for admission to University of Toronto programs. Admissions decisions are final and are not appealable.

The University may confer upon a person more than one graduate degree having the same title provided the degrees are completed in different fields of study.

Academic Requirements for Admission

Master’s Programs
1. An appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, is required. Under exceptional circumstances, for applicants with a three-year degree, equivalency may be demonstrated, for example, through relevant work experience or additional qualifications.
2. High academic standing equivalent to a University of Toronto mid-B or better, normally demonstrated by an average grade in the final year or over senior courses, is required.
3. At least two letters of reference are required.
4. Other qualifications as may be specified by a graduate unit.

Doctor of Philosophy Programs
1. An appropriate University of Toronto master’s degree, or its equivalent from a recognized university, is required. Direct entry from a four-year bachelor’s degree to a PhD program is also available when permitted by the graduate unit. See also Admission Requirements under Degree Regulations.
2. An average grade equivalent to a University of Toronto B+ or better in a previous master’s degree program. Where relevant, demonstrated research competence equivalent to at least a B+ grade will be considered. For direct entry applicants, an average grade equivalent to a University of Toronto A- or better in courses in the relevant discipline.
3. At least two letters of reference are required.
4. Other qualifications as may be specified by a graduate unit.

Other Doctoral Programs
1. Normally, an appropriate University of Toronto master’s degree, or its equivalent from a recognized university, is required. See appropriate graduate unit entry for specific details.
2. An average grade equivalent to a University of Toronto B+ or better in master’s courses. Where relevant, demonstrated research competence equivalent to at least a B+ grade will be considered.
3. At least two letters of reference are required.
4. Other qualifications as may be specified by a graduate unit.

Special Student Programs
Special Students must submit an application for admission for each academic year of study.

Applicants accepted as Special Student–Full Time must have completed an appropriate University of Toronto four-year bachelor’s degree or its equivalent from a recognized university. They must have attained an average grade in the final year (or over senior courses) equivalent to mid-B or better.

Applicants accepted as Special Student–Part Time must hold an appropriate University of Toronto four-year bachelor’s degree, or its equivalent, from a recognized university. Before applying, applicants should specify the courses they wish to take and obtain approval from the teaching graduate unit or graduate units. Those accepted with less than mid-B standing may not apply for admission to a degree program at a later date.

Advanced Standing
Advanced standing refers to academic credit awarded upon admission to a program of study which enables direct entry to an identified higher academic achievement level of the program. Students are eligible for advanced standing if they meet a clearly articulated set of objectives and/or course requirements for an advanced standing option as defined in the graduate program calendar entry. Not every program will offer an advanced standing option. Consult the graduate unit regarding advanced standing options.

Eligibility of Senior Faculty Members
Members of the faculty of the University or its federated or affiliated colleges, senior in rank to Lecturer, are normally not eligible to be graduate students proceeding to a degree at the University of Toronto. Exceptions
may be granted by the SGS Admissions and Programs Committee when it is confident that the graduate program is sufficiently remote from the faculty member that academic impartiality is not compromised.

**Courses Taken as a Special Student**

On the recommendation of the graduate unit, and with the School's approval, graduate courses taken as a Special Student may count for up to 1.0 full-course equivalent or 25% of the course requirements for the degree, whichever is greater, in a subsequent degree program at this University, provided that they have not already been credited towards another degree, diploma, certificate, or any other qualification. With the approval of the graduate unit, they may serve to satisfy prerequisite requirements. Special Students programs must include at least one graduate course. Any tuition fees paid as a Special Student cannot be transferred to a subsequent degree program.

**English Language Facility**

It is essential that all incoming graduate students have a good command of English. Facility in the English language must be demonstrated by all applicants educated outside Canada whose primary language is not English. This is a requirement of admission and should be met before application, but must be met before an offer of admission is made. This requirement may be satisfied using one of the following tests. Test results that are older than two years at the time of application cannot be accepted. The applicant must retake the English language facility test. Minimum scores are shown; however, many graduate units require a higher score, and applicants should consult the graduate unit to determine whether a higher minimum score applies.

### Test of English as a Foreign Language (TOEFL)

Educational Testing Service
P.O. Box 6151
Princeton, New Jersey
U.S.A., 08541-6151
Web: www.toefl.org

The TOEFL examination is offered in three formats: the traditional **paper-based format** (only offered on specific dates in a limited number of countries), the **computer-based format** (offered year-round), and the **internet-based format** (offered year-round). Applicants registering for the paper-based TOEFL must include the Test of Written English (TWE) component. The internet and computer-based tests include a component similar to the TWE; the internet-based test also includes a speaking section. All applicants must satisfy the minimum TOEFL score requirements set by each of the four SGS academic divisions listed in the accompanying chart.

### TOEFL Minimum Score Requirements

Consult the department to which you are applying to determine if a higher minimum score is required.

<table>
<thead>
<tr>
<th>ACADEMIC DIVISION</th>
<th>Paper-Based Test and TWE</th>
<th>Computer-Based Test and Essay Rating</th>
<th>Internet-Based Test and Writing and Speaking Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td>Overall score 580</td>
<td>Overall score 237</td>
<td>Overall score 93</td>
</tr>
<tr>
<td></td>
<td>TWE 5</td>
<td>Essay Rating 5</td>
<td>Writing 22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Speaking 22</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>Overall score 580</td>
<td>Overall score 237</td>
<td>Overall score 93</td>
</tr>
<tr>
<td></td>
<td>TWE 5</td>
<td>Essay Rating 5</td>
<td>Writing 22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Speaking 22</td>
</tr>
<tr>
<td>Physical &amp;</td>
<td>Overall score 580</td>
<td>Overall score 237</td>
<td>Overall score 93</td>
</tr>
<tr>
<td>Engineering</td>
<td>TWE 4</td>
<td>Essay Rating 4</td>
<td>Writing 22</td>
</tr>
<tr>
<td>Sciences</td>
<td></td>
<td></td>
<td>Speaking 22</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>Overall score 580</td>
<td>Overall score 237</td>
<td>Overall score 93</td>
</tr>
<tr>
<td></td>
<td>TWE 5</td>
<td>Essay Rating 5</td>
<td>Writing 22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Speaking 22</td>
</tr>
</tbody>
</table>
Application for Admissions to a Degree Program

Procedures
1. Formal application for admission should be submitted using the Online Application accessible through the graduate units. Applicants must pay an application fee of $110; some graduate programs have set higher application fees. Payment options: (a) online using a credit card (MasterCard or Visa); (b) by mailing a certified cheque or money order in Canadian funds made payable to the University of Toronto. No decision on the application will be sent to the applicant until this fee has been paid.
2. Applicants must arrange to have one official copy of their complete academic records from all universities attended included with their application. Letters of reference are also required. Individual graduate units may require further documentation.
3. Certified English translations of all international documentation written in a language other than English or French must also be submitted.

Application Deadlines
The graduate unit determines the date by which applicants should submit their applications, supporting documentation, and at least two letters of reference to be assured that they will be considered for a place in the program of their choice and for financial support. For specific information on application and financial support deadlines, contact the graduate unit offering the program to which you are applying. Earlier submission is recommended for applications from outside Canada to ensure timely arrival, particularly where special documentation (and/or translation) and proof of English language facility are required. Not all graduate units offer January admission. Consult the graduate unit concerned for more information.

Financial Assistance
For detailed information about fellowships, see calendar section titled Fees and Financial Support.

Acceptance
1. Admission decisions are made by the graduate unit. The official acceptance letter is issued by the School of Graduate Studies. Admissions decisions are final and are not appealable.
2. Applicants who are offered acceptance pending receipt of final transcripts must submit one official copy of their final transcripts to the graduate unit before final acceptance can be approved. If final transcripts do not indicate that the expected degree has been conferred, official documentation indicating the anticipated date of degree conferral must be submitted before registration.
3. Normally students accepted to the School of Graduate Studies must commence their program...
of study on the date specified in their letter of acceptance. If circumstances prevent a student from starting study on the specified date, the graduate unit may decide that the offer of admission be valid for a period not to exceed 12 months from the original commencement date. In such a case, an official transcript will be required to document any new study completed in the interim. If the period exceeds 12 months from the original date of expected commencement, a new application must be submitted.

4. If the graduate unit approves, students accepted to begin their programs in September will be permitted to start the preceding summer. Students taking courses during the summer will pay the Summer Session fee (academic and incidental), which is additional to the Fall and Winter Session fee. Students engaged only in research do not pay Summer Session fees.

Structure of Academic Programs

Academic Year

In the School of Graduate Studies, the academic year begins in September and ends in August. The academic year is divided into three sessions: the Fall Session from September to December, the Winter Session from January to April, and the Summer Session from May to August.

Academic Programs

Academic programs leading to graduate degrees are defined by the units which offer them and by the degree regulations found in the Degree Regulations section for the EdD, PhD, MA, MSc, MASc., MEd, MEng, and MHSc. For other degrees, consult the relevant graduate unit listing in the Degree Programs by Graduate Unit section of this Calendar or on the Web at www.sgs.utoronto.ca/programs.htm.

Minimum Period of Registration (formerly Program Length)

All academic programs specify a minimum period of registration defined as the shortest length of time a student must be registered in that program on a full-time basis in order to qualify for the degree. This period also establishes the minimum degree fee students must pay.

Residence

Many programs specify a period of residence during which the student is required to be on campus and consequently in such geographical proximity as to be able to participate fully in the University activities associated with the program. Residence provides the student with an opportunity to become immersed in the intellectual environment of the university.

Full-time Studies

Full-time graduate students are defined according to government regulations as follows:

1. They must be pursuing their studies as a full-time occupation and identify themselves as full-time graduate students.
2. They must be designated by the University as full-time students.
3. They must be geographically available and visit the campus regularly.
4. They must be considered to be full-time students by their supervisors.
5. If an academic program requires an absence from the University, students must apply through their graduate unit for permission to be off campus.

Part-time Studies

From first registration, part-time studies are permitted in those master’s degree programs offering a part-time program.
Students wishing to take 0.5 or 1.0 full-course equivalents (FCE) not for degree credit are admitted as part-time Special Students, in any session.

Time Limits
All degree requirements must be completed within a specific period of time. See Degree Regulations and Lapsed Status section below.

Registration Policies and Procedures

Registration Procedures
Graduate students are required to register at the beginning of each session they wish to attend. New graduate students will receive registration instructions prior to the registration dates listed in the Sessional Dates. Students may access Registration Instructions on the Web at www.sgs.utoronto.ca/informationfor/students/newcurrent/reg.htm.

Students registering in programs offered by the Ontario Institute for Studies in Education of the University of Toronto (OISE/UT) should consult OISE/UT for information.

For the Fall and Winter Sessions, registration material is sent to the student’s mailing address. Students are asked to check their ROSI account to view their invoice online. Every effort is made to ensure that only students who are eligible to register receive registration material. However, receiving it does not override any other notification students receive about academic status and eligibility. New students who have received a conditional offer of admission should make arrangements with their graduate unit to clear conditions as soon as possible. The first step to registration is the payment of fees or arrangements to pay such fees. The second step is the presentation of the fees receipt to the graduate unit and collection of a School of Graduate Studies Calendar.

A student is considered to be registered as soon as academic and incidental fees are paid or arrangements for deferral of fees payment have been made.

Summer Session Courses
All students, whether attending formal courses or engaging in research or project work, must register for the Summer Session. Summer Session registration instructions are usually sent to the student’s current address or to the graduate unit in April. Doctoral, MSc, and MASc students register for the September-August or January-August period when they first register in September or January, and therefore are already registered for the Summer Session.

In addition to a large program of research supervision and independent study, the School of Graduate Studies offers a limited number of graduate courses for credit towards higher degrees during the summer. Many undergraduate courses will also be available for persons requiring prerequisite work in order to enter graduate programs. Students should consult the undergraduate calendars of the faculties of interest.

Summer courses are equivalent to those offered during the Fall and Winter Sessions but vary in duration and thus in frequency of meeting. Some courses will last 12 to 14 weeks while others will meet for only 7 weeks. In some cases, prerequisite courses will be six weeks long.

For persons attending the May-August session, the maximum possible load is 2.0 full-course equivalents. The maximum load in the May-June or July-August period is 1.0 full-course equivalent.
First Registration
Students beginning their degree programs normally register for the first time in September. In some cases, graduate units may give permission for new students to start their programs either in January, May, or July.

Continuity of Registration
Failure to register as required will cause a student's registration to lapse. See Lapsed Status below.

Doctoral Students
Doctoral students must register annually until all degree requirements have been fulfilled.

Full-Time Master's Students
Once they have first registered, full-time master's students, in other than course-work only programs, must register annually in September until all degree requirements have been completed.

Full-time master's students in course-work only programs must register initially for the minimum registration period and thereafter for each session in which they are completing requirements for the degree. All full-time master's students who have completed the minimum period of registration may not register as part-time students.

Prior to completing all courses in a course-work only program, and with the permission of their graduate unit, master's students admitted to a full-time program may 'stop out' between sessions. However, no change is made to the time limit for completing the degree.

Part-Time Master's Students
Master's students proceeding to their degree on a part-time basis register in those sessions in which they are completing course requirements for the degree.

When all course requirements have been completed, they must register annually until all other requirements have been completed.

Master's students are advised to consult their graduate units for further information on continuity of registration requirements, particularly with regard to the Summer Session; many graduate units expect their students to be registered for all three sessions.

Students are reminded that there are time limits for all degree programs.

Late Registration Fee
Since it is the student's responsibility to ensure that proper registration is completed on time, late registration will be subject to an additional fee as specified in the Fees and Financial Support section of this Calendar.

Failure to Register
Students will not receive credit for work completed during a session in which they have not registered.

Extension of Time for Completion of Degree Requirements
In exceptional circumstances, a degree student who has failed to complete all the requirements for the degree within the period specified in the degree regulations may be considered for a maximum of two one-year extensions provided that the graduate unit concerned so approves. To apply for an extension, the student must present to the graduate unit concerned the causes for the delay and evidence that the remaining degree requirements may be completed within the period of the extension request. See also section under Degree Regulations, Doctor of Philosophy, Program Requirements, titled Time for Completion of Program Requirements.

Lapsed Status
If a student or candidate fails to register, or is not permitted to register because the time limit for the degree sought has elapsed, registration in the School of Graduate Studies lapses. Normally, students or candidates whose registration has lapsed may not make demands upon the resources of the University, attend courses, or expect advice from their supervisor. There are two states of lapsed status, as noted below.

Before the Time Limit for the Degree has Expired
Failure to register as required within the time limit specified for the degree sought will result in lapsed status. An application for reinstatement is required and must be approved both by the graduate unit and the School of Graduate Studies, and payment is made of the prescribed fees for the year(s) in which the student or candidate failed to register.

After the Time Limit for the Degree has Expired
After the time limit for the degree has elapsed and further extensions cannot be recommended, a candidate may not register further. Registration in the program is considered to have lapsed. In special circumstances, a candidate may be reinstated once only, for a maximum of 12 months. See Time for Completion of Program Requirements section in the PhD regulations. These regulations apply by analogy to master's students including those who have outstanding requirements other than a thesis.

Concurrent Registration Option (available at the master's degree level only)
The Concurrent Registration Option is available only in degree programs with approved partner degree programs at the University of Toronto. Students who are accepted into each partner degree program separately may enrol in the Concurrent Program Option in each degree program, subject to the approval of both programs. Graduate master's programs may partner with other graduate programs or with undergraduate degree programs (e.g. JD).
Dual Registration
A student in a master's program at this University who has been offered admission to a PhD program conditional on completion of the master's program, may be a dual registrant for only one session in both programs under the following conditions.

1. A minimal amount of work remains to complete the requirements for the master's degree. A student may enrol in a maximum of 0.5 full-course equivalent (one half-course) for the master's program in the one session of dual registration with the approval of the graduate unit.
2. Permission has been granted by the graduate unit.
3. The student will be engaged in full-time PhD studies and will be registered full-time in the PhD and part-time in the master's program. Only the appropriate PhD fees will be charged.
4. The period of dual registration will be either September 1 to January 31 or January 1 to April 30. In order to receive credit for the PhD for the period as a dual registrant, the student must be recommended for the award of the master's degree by January 31 for September dual registrants, or by April 25 for January dual registrants. Otherwise, the PhD registration will be cancelled, no credit for the PhD will be allowed, and the student will continue to be registered as a master's student only. An appropriate fees adjustment will be made so that the student will be charged fees only as a master's student. PhD course credit will be retained for courses completed in the period of dual registration provided the graduate unit has informed the School.

Students who are not recommended for the master's degree by the deadline and whose enrolment in the PhD is thereby cancelled may not apply for dual registration a second time. They must successfully complete the requirements for the master's degree before registering in the PhD program.

Simultaneous Registration
Simultaneous registration in two full-time programs is not permitted. With the consent of both graduate units concerned, or of the graduate unit and another faculty or school, and written notification to the School of Graduate Studies, simultaneous registration in a full-time program and a part-time program may be permitted. Two part-time registrations in different programs may also be permitted. Students are responsible for the fees charged for both programs.

Leave Policy
Graduate students whose programs require continuous registration may apply to their Graduate Coordinator for a one-session to three-session leave during their program of study for

1. serious health or personal problems which temporarily make it impossible to continue in the program, or
2. parental leave by either parent at the time of pregnancy, birth or adoption, and/or to provide full-time care during the child’s first year. Parental leave must be completed within 12 months of the date of birth or custody. Where both parents are graduate students taking leave, the combined total number of sessions may not exceed four.

Once on leave, students will neither be registered nor will they be required to pay fees for this period. In general, students on leave may not make demands upon the resources of the University, attend courses, or expect advice from their supervisor. As an exception, students on leave for parental or serious health reasons who wish to consult with their supervisor or other faculty are advised to make special arrangements through their department. Students on leave will not be eligible to receive University of Toronto fellowships support. In the case of other graduate student awards, the regulations of the particular granting agency apply.

Students may make application for a leave by completing the Leave Request Form and submitting it to their Graduate Coordinator for approval. The form is then sent to the School of Graduate Studies for processing. The termination date of the degree program will be extended by the duration of the leave taken, i.e., one, two, or three sessions as appropriate. Except for parental leave or in exceptional circumstances, it is not expected that a student will be granted more than one leave under the terms of this policy. Normally the start and finish of the leave would coincide with the start and end of a session. When students require a leave to begin in mid-session, they are advised to contact the Director of Student Services at the School of Graduate Studies to make special arrangements.

Leave requests that do not fall under the terms of this policy will require final approval from the School of Graduate Studies.

Withdrawal from a Graduate Program
In order to withdraw from a program, students must submit a Program Change Form to the School of Graduate Studies and return student cards to the School. Withdrawal from a graduate program should be reported immediately to the School. A rebate of fees, if any, will be determined by the date on which written notification of withdrawal is received by the School. Any application for re-admission by a student who has withdrawn must be made in competition with all other applicants.

Students enrolled in course-work only degree programs who withdraw from all courses in which they are currently enrolled must withdraw from their programs. The School will approve recommendations from the graduate units that such students be eligible to re-register at any time within 12 months following withdrawal.
Enrolment Policies and Procedures

Graduate Courses
A graduate course is understood to require at least two hours per week of lectures or seminars plus such laboratory hours as may be required.

Enrolment
After registration, students enrol with their graduate units and arrange programs of study (courses, research topics, supervisors, and so on). Students should contact the graduate unit for enrolment procedures. Enrolment should be completed by the deadline noted in the Academic Calendar.

Most of the formal classes and seminars in the Fall Session begin in the week of September following Labour Day. However, starting dates are determined by the graduate units, and students are urged to contact the relevant graduate units for information.

Not every course will be given in any one year. Consult the graduate unit concerning course availability.

Deadlines for Enrolment Changes
Graduate units may establish earlier deadlines for course changes. Courses must be dropped by completing a Program Change Form or by using the Web service (if the department permits access). In order to avoid academic penalties, courses must be dropped by the following deadlines.

<table>
<thead>
<tr>
<th>Date</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 7, 2009</td>
<td>Deadline to add full courses (Y) and half-courses (H).</td>
</tr>
<tr>
<td>Nov. 3, 2009</td>
<td>Deadline to drop a Fall Session full course or half-course without academic penalty.</td>
</tr>
<tr>
<td>Jan. 15, 2010</td>
<td>Deadline to add Winter Session full courses (Y) and half-courses (H).</td>
</tr>
<tr>
<td>Feb. 26, 2010</td>
<td>Deadline to drop a full course (Y) or Winter Session half-course (H), or withdraw from a program without academic penalty.</td>
</tr>
</tbody>
</table>

Graduate units may establish earlier deadlines for completion of course work and may prescribe penalties for late completion of work and for failure to complete work, provided that these penalties are announced at the time the instructor makes available to the class the methods by which student performance shall be evaluated.

Course Work Extensions
Students are expected to meet the course deadlines both of the School of Graduate Studies and of the graduate units in which they are registered and are advised to plan their research projects accordingly. Students who find themselves unable to meet SGS deadlines for completing course work can, under certain conditions, receive extensions for completing the work after the date set by SGS.

Petitions for course work extensions
The authority to grant an extension for the completion of work in a course beyond the original SGS deadline for that course rests with the graduate unit in which the course was offered, not the instructor of the course. Students will petition the graduate unit for extensions, using a standard form provided by SGS.

The deadline for requesting an initial extension is the deadline for completion of course work and grade submission for courses offered in the relevant session, as specified in this Calendar.

A student on extension who is unable to complete the required course work in the extension period specified by the graduate unit may apply to the graduate unit for a continuation of the extension (subject to the time-limits and deadlines for extensions, set out below); however, the student must make such a request before the expiry date of the extension period in place.

Grounds for course work extensions
Legitimate reasons for an extension can be academic in nature - e.g., unexpected problems of research in a course - or non-academic - e.g., illness. In order to ensure as much uniformity and fairness as possible in the granting of extensions (or continuations of extensions), the relevant graduate unit must be reasonably certain that:
1. the reasons for the delay are both serious and substantiated: the student is to provide a statement...
Enrolment Policies and Procedures

Fall Session (Y, H) courses
Summer Session courses and
Fall/Winter Session (Y) and

26 course work.

providing in each case the new deadline for completion of
than the expiry dates of the original periods of extension,
the relevant courses or, in case of continuations, no later
later than the original deadlines for submitting grades for

Committee.
The approval of the SGS Admissions and Programs
be a permanent transcript entry. Amendments will require
report of 'SDF' will be replaced by one of 'INC'. This will
has not submitted the outstanding course work, then the
submission following the original one for the course. If, by
SGS deadline for completion of course work and grade
run beyond the SGS deadline for completion of course
sion, it must specify an extension period, which is not to
If a graduate unit grants a petition for an exten-
foregoing deadlines.
Extensions beyond these deadlines will require
the approval of both the graduate unit and the SGS
Admissions and Programs Committee.

Time-limits for course work extensions
If a graduate unit grants a petition for an exten-
run beyond the SGS deadline for completion of course
work and grade submission following the original SGS
deadline for the course. Thus, the deadlines for course
extensions are as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 14, 2010</td>
<td>Fall Session (Y, H) courses</td>
</tr>
<tr>
<td>Sep. 17, 2010</td>
<td>Fall/Winter Session (Y) and Winter Session (Y, H) courses</td>
</tr>
<tr>
<td>Jan. 14, 2011</td>
<td>Summer Session courses and extended courses</td>
</tr>
</tbody>
</table>

A graduate unit may grant a continuation of an
extension that is already in place provided that it does
not extend the total period of the extension beyond the
foregoing deadlines.

Extensions beyond these deadlines will require
the approval of both the graduate unit and the SGS
Admissions and Programs Committee.

Grade-reporting procedures
The graduate unit will assign the temporary course
report of 'SDF' ('Standing Deferred') to a student on
extension, pending receipt from the instructor of a final
course report. The final course report will take the form
either of a regular grade or of the non-grade report 'INC' ('Incomplete'), as appropriate. It is due no later than the
SGS deadline for completion of course work and grade
submission following the original one for the course. If, by
that date, a final grade is not available and the student
has not submitted the outstanding course work, then the
report of 'SDF' will be replaced by one of 'INC'. This will
be a permanent transcript entry. Amendments will require
the approval of the SGS Admissions and Programs
Committee.

SGS and home graduate unit notification
Graduate units are to notify SGS of extensions no
later than the original deadlines for submitting grades for
the relevant courses or, in case of continuations, no later
than the expiry dates of the original periods of extension,
providing in each case the new deadline for completion of
course work.

A graduate unit should, in addition, notify the gradu-
ate unit in which the student is registered when it is not
the same as the one granting the extension.

Extra Courses Not Required for the
Degree
Graduate units may permit students to enrol in addi-
tional courses not required for the degree. Such courses
must be so designated on the student's enrolment form.
These courses are subject to the same regulations
regarding withdrawal, failure, and failure to complete
work as are courses required for the degree, except that
repetition or replacement of failed or incomplete courses
may be waived by the graduate unit.

Prerequisite Courses
At least B- is required in all prerequisite courses
but some graduate units may require a higher average;
students should consult the graduate unit in advance.

Reading and/or Research Courses
Reading and/or research courses should involve
as much reading and work as a normal seminar or
other type of graduate course; written work should be
a requirement of the course. Reading and/or research
courses are subject to the grading practices policy in the
same way as any other course.

Only faculty holding a graduate appointment may
direct a reading and/or research course, and they must
hold a faculty appointment in the graduate unit where the
course is being offered, normally in the student's home
graduate unit. In general, both the student and instructor
should be on campus and the frequency of their meeting
should be consistent with other courses.

Approval to take a reading and/or research course is
given by the graduate unit.

Seminar/Workshop Courses
Some graduate units offer seminar/workshop
courses. These courses vary in format and delivery from
unit to unit, and they may or may not count towards the
number of courses required for the completion of a de-
gree program. Consult the home graduate unit for details
and program requirements.

Auditing of Graduate Courses
Graduate units determine if they wish to allow
auditing of their courses and which groups of students
and non-students specified in the University's Policy on
Auditing of Courses they wish to allow. When auditing
is allowed, the final decision to permit an individual to
audit rests with the instructor of the course. In all cases,
students registered in the University who wish to audit
courses have priority over others. An auditor may attend
lectures and other class meetings, take part in class
discussions, and, when the appropriate fee is paid,
receive written confirmation of attendance. An auditor
will not receive evaluations of participation and will not
be allowed to submit assignments or write examinations.
and tests except by special and express permission. Audited courses are not recorded on the student's official transcript. The University's Code of Student Conduct applies to auditors. Further information about access, Certificates of Attendance, and fees for auditing may be obtained from the Office of the Director of Student Services at the School of Graduate Studies.

Transfer Credit and Exemptions

Transfer credit for graduate work completed in another program is limited to 1.0 full-course equivalent, or 25 percent of the course requirements for any degree, whichever is greater, provided that the courses have not been credited towards another degree, diploma, certificate, or any other qualifications. Such credit may be given on the recommendation of the student's graduate unit and with the School's approval, normally upon admission. Exceptions to the limit are allowed when approved for specific degrees.

Students participating in an approved exchange program on the recommendation of their graduate unit may receive transfer credit for up to 50 percent of the course requirements for their degree. They may also complete language requirements while on the exchange. When recommended by the unit and approved by the SGS Dean, that percentage may be exceeded by doctoral students. In all cases, transfer credit arrangements for exchange program participants must be approved in advance by the SGS Dean or designate.

Transfer of credit and course exemptions include the following categories:

1. **Transfer Credit - Course Equivalent**
   Credit received for course completed in a prior program is considered to be equivalent to course offered by the graduate unit thus reducing the overall course credit requirements for degree.

2. **Transfer Credit - General Equivalent**
   Unassigned credit for course not identifiable with course offerings but which is evaluated as being appropriate for academic credit on transfer thus reducing overall course credit requirements for degree.

3. **Course Exemption**
   The graduate unit may exempt a student from a specific course requirement permitting the substitution of another course to meet degree requirements. Overall course credit requirements for degree are not reduced.

Good Academic Standing and Satisfactory Academic Progress

To be in good academic standing, a student registered in a degree program in the School of Graduate Studies must:

1. comply with the General Regulations of the School as well as with the Degree Regulations and program requirements governing that degree program; and
2. make satisfactory progress toward the completion of the degree.

All degree students are admitted under the General Regulations of the School, described in the General Regulations section of this Calendar. The Degree Regulations for the various doctoral and master’s degrees offered by the School are specified in the Degree Regulations section of this Calendar and in the Degree Programs by Graduate Unit section, under the entry of the graduate unit offering the graduate program leading to the relevant degree. The specific requirements for the various graduate programs offered in the School are described under the entry of the graduate unit offering the program.

Failure to maintain good academic standing may result in various sanctions, including ineligibility for fellowships, lowest priority for bursaries and assistantships, and even termination. The School of Graduate Studies may terminate the registration and eligibility of a student

1. who fails to comply with the General Regulations of the School of Graduate Studies, the relevant Degree Regulations, or the specific degree requirements of the graduate unit in which the student is registered or
2. who fails to maintain satisfactory progress in the degree program in which the student is registered, as measured either by the general standards of the School of Graduate Studies or by the specific ones of the graduate unit.

Full-Time Studies

Students registered as full-time students in the School of Graduate Studies must be engaged in their studies on a full-time basis, as required by government regulations for full-time graduate studies. (See “Full-time Studies”, above.) A full-time student may be absent from the University for an extended period or may participate in a program offered by another university if and only if the student has received written permission from the graduate unit in which he or she is registered. A graduate student who, in a given session, is absent from the University without receiving prior approval may lose good academic standing. In exceptional cases, a graduate unit may recommend to the School the termination of the student's registration and eligibility.

Timely Completion of Graduate Program Requirements

Each graduate unit establishes specific requirements for degree programs, in addition to those of the School, as well as standards of satisfactory performance and
General Regulations

progress. These requirements and standards are described in the appropriate entry in the Degree Programs by Graduate Unit section of this Calendar and in material published separately by graduate units. Continuation in a degree program requires satisfactory progress toward the completion of that program. A student's progress in a degree program will be considered satisfactory only if the student satisfies and completes the various requirements for that degree in a manner consistent with the graduate unit's time line for completion of the degree. A graduate unit may recommend to the School that a student's registration and degree eligibility be terminated when a student fails to maintain satisfactory progress toward the completion of the degree.

Satisfactory Completion of Graduate Courses

Satisfactory performance in a degree program requires the completion of every course taken for graduate credit with a grade of at least a B-; some graduate units may require a minimum grade above a B- for some or all courses. If a student fails to complete a graduate course in a satisfactory manner (i.e., receives a grade report of ‘FZ’ or ‘NCR’ in a course, receives a grade report below the minimum acceptable by the graduate unit, or receives a non-grade report of ‘INC’), then the graduate unit in which the student is registered may recommend to the School the termination of registration and eligibility of that student. If the student is permitted to continue, he or she must repeat the relevant course, or an alternative course recommended by the graduate unit and approved by the School, and obtain a satisfactory grade. (The report for the course that was not completed in a satisfactory manner as well as the report for the repeated or alternative course will appear on the student's academic record.)

Supervision and Satisfactory Progress in a PhD Program

A PhD student is expected, with the assistance of the graduate unit, to select a supervisor and, with the assistance of the supervisor and graduate unit, to constitute a supervisory committee, consisting of the supervisor and at least two other members of the graduate faculty, as early as practicable in the student's program but, in any case, no later than the time specified by the time frame established by the graduate unit. The student's choice of supervisor and supervisory committee is subject to the approval of the graduate unit in which the student is registered. A student who encounters difficulties setting up a supervisory committee should consult the chair/director or the graduate coordinator of the graduate unit in advance of the relevant deadline. A student who fails to constitute a supervisory committee by the required time may lose good academic standing.

A student is expected to meet with this committee at least once a year, and more often if the committee so requires. At each meeting, the supervisory committee will assess the student's progress in the program and provide advice on future work. If in each of two consecutive meetings, a student's supervisory commit-

tee reports that the student's progress is unsatisfactory, the graduate unit may recommend to the School the termination of registration and eligibility of that student. A student who encounters difficulties arranging a meeting of this committee should consult the chair/director or the graduate coordinator of the graduate unit in advance of the relevant deadline for doing so. A student who, through the student's own neglect, fails to meet with the supervisory committee in a given year will be considered to have received an unsatisfactory progress report from the committee.

Time Limit for Completion of Program Requirements in a PhD Program

A student enrolled in a full-time (as opposed to a flexible-time) PhD degree program will be denied further registration in that program and will have his or her eligibility terminated at the end of the third year of registration, in the case of a four-year program, or at the end of the fourth year of registration, in the case of a five-year program, if by that time either

1. the student has not completed all requirements for the degree exclusive of thesis research—including course requirements, language requirements, qualifying departmental examinations—or

2. the student does not have an approved thesis topic, supervisor, or supervisory committee.

Note: The foregoing time limit does not apply to courses that run continuously throughout the program, e.g., ongoing research seminar courses.

In exceptional circumstances, a student who has not met these requirements may be permitted to register in the program for up to 12 months at the discretion of the graduate unit concerned. Continuation beyond 12 months will require the approval of both the graduate unit and the SGS Admissions and Programs Committee.

Completion of the program requirements identified above will signal the achievement of candidacy.
Graduate Student Supervision

Thesis Topic and Supervision

In those degree programs for which a thesis is part of the requirements, the work upon which the thesis is based must be conducted under the direction of one or more members of the faculty of the School of Graduate Studies.

A student must choose a thesis topic for which the graduate unit in which he or she is registered is able to provide adequate supervision.

A student's choice of thesis topic, as well as his or her choice of supervisor and supervisory committee, is subject to the approval of the graduate unit in which the student is registered.

PhD Supervision

While the special, collaborative relationship between student and supervisor serves as a foundation for graduate education, particularly at the PhD level, the primary responsibility for graduate programs and their supervision rests with the graduate unit. The chair of the graduate unit has the principal obligation and authority for exercising these responsibilities, in accordance with the Statute of the School of Graduate Studies, and therefore, for implementing the academic and procedural standards established in the School in 1985/86 in the form of the “Report of the Committee on PhD Supervision” (Endrenyi Report).

Although the report indicates procedures to be followed in the supervision of PhD students, it is clear that these have general applicability for all graduate students to some degree. It is essential that students have access to information relevant to their graduate program of studies, in all domains. Thus each graduate unit will provide students with a document which provides details of all procedures involved with graduate training, a list of members of the graduate faculty with relevant information concerning their participation, fields of expertise and supervision, and a copy of Graduate Supervision: Guidelines for Students, Faculty, and Administrators (also available online at www.sgs.utoronto.ca/adminsupport/gradadmin/supervision.htm). In addition, updated statements must be made available to students on a regular basis. These will include a list of graduate students (with their general thesis topic, supervisor(s) and advisor(s)), the availability of financial assistance, and relevant information to affected students about the expected absences of their supervisor(s) and/or advisor(s).

Any doctoral student who believes that his or her graduate unit is not following the supervision guidelines may inform his or her coordinator of graduate studies or the Vice Dean, Students, of the School of Graduate Studies.

The academic experience is greatly enhanced if members of the academic faculty, in addition to the direct supervisor, are readily and formally available for consultation and discussion with the graduate student. Therefore, an individual thesis supervisory committee or, as an alternative, an area supervisory committee, should be struck as early as possible for each graduate student, and certainly from the commencement of thesis supervision.

The graduate unit is responsible for adopting a procedure for monitoring the progress of PhD students registered in its programs. The procedure shall contain the following minimum elements, consistent with Graduate Supervision: Guidelines for Students, Faculty, and Administrators, available at graduate units and online at www.sgs.utoronto.ca/adminsupport/gradadmin/supervision.htm:

1. A supervisory committee consisting of the supervisor and at least two graduate faculty members.
2. The supervisory committee meets with the student at least once per year to assess the student's progress in the program and to provide advice on future work.
3. The committee submits a report detailing its observations of the student's progress and its recommendations.
4. The student must be given the opportunity to respond to the committee's report/recommendations and to append a response to the committee's report.
5. Copies of the report shall be given to the student and filed with the department.
Submission of Theses

One electronic copy of the final approved version of the defended thesis (master's or doctoral) must be submitted to SGS through T-space (https://tspace.library.utoronto.ca), the digital research repository for the University of Toronto community. All theses will be submitted to the national thesis program at Library and Archives Canada and theses will be made publicly available on the Theses Canada Portal. This program makes theses available to ProQuest Information and Learning. ProQuest will make theses available for purchase on its ProQuest Dissertations and Theses Database and include the catalogue records in its bibliographic services. It is the intention of the University of Toronto that there be no restriction on the distribution and publication of theses. However, in exceptional cases, the author, in consultation with the thesis supervisor and with the approval of the chair of the graduate unit, shall have the right to postpone distribution and publication for a period up to two years from the date of acceptance of the thesis. In exceptional circumstances and on written petition to the Dean of the School of Graduate Studies, the period might be extended, but in no case for more than five years from the date of acceptance of the thesis unless approved by the Graduate Education Council.

Following electronic submission of the thesis, a signed hard copy of the “Library & Archives Canada Theses Non-exclusive License” form, along with any necessary copyright permissions, must also be submitted to SGS. If the student is required to submit a bound paper copy to his or her graduate unit, a signed “Authority to Distribute” form must be bound inside the front cover. Candidates will be charged a fee for the processing and indexing of the thesis. Degree recommendations submitted to SGS by graduate units are approved only after the thesis is received.

Specific formatting guidelines must be followed so that theses conform to the requirements of SGS and for the publication of the thesis. Theses that do not conform to these formatting guidelines will not be accepted. For more information about required fees, forms, copyright, thesis formatting, and other related matters, visit the Information for Students' section of the SGS Web site www.sgs.utoronto.ca/informationfor/students/finish/final.htm

Doctoral Thesis

Prior to the final oral examination, required copies of the doctoral thesis must be submitted by the candidate to the graduate unit. The candidate should consult the graduate coordinator regarding requirements and deadlines for submission of material. The graduate unit is responsible for ensuring that one copy of the thesis is brought to the final oral examination.

Following successful completion of the final oral examination, an electronic copy of the final approved version of the thesis must be submitted to SGS (see above). Thesis submission represents the request for graduation.

A bound printed copy of the doctoral thesis in its final form may be required by the candidate’s graduate unit. Candidates should consult their unit to determine the format, number, and distribution of such copies.

Further details about doctoral theses may be found in Section 2 Degree Regulations under Doctor of Philosophy, Final Oral Examination.

Master’s Thesis

Students should consult their graduate unit for additional local format requirements, submission deadlines and procedures concerning master's theses. An electronic copy of the thesis must be submitted to SGS only after the thesis has been successfully defended and any final corrections have been made. SGS also requires a copy of the letter from the student's supervisor confirming completion of any required corrections. Students may also be required to submit a bound copy or copies of the thesis to the relevant graduate unit.
Graduation

Degree Recommendations
When all requirements for a master's degree or graduate diploma program have been fulfilled, the graduate unit is required to submit a degree recommendation to SGS indicating that the program has been satisfactorily completed by the student. Students should note that in the case of thesis masters’ programs, degree recommendations are only approved after the thesis and required supporting documents have been submitted to SGS.

Convocation Ceremonies
Convocation ceremonies are held twice a year, in the spring and fall. Students may attend the ceremony which directly follows the completion of their degree requirements. The Director of Student Services of the School of Graduate Studies submits the names of the graduands to the Office of Convocation which is responsible for the procedures for the convocation ceremony and the issuance of diplomas.

Upon the request of the student, graduate degrees may also be conferred in absentia in March, where there is no ceremony but rather diplomas are mailed to graduands.

Graduation information is available on the University of Toronto Web site at www.convocation.utoronto.ca.

Academic Appeals

General
Graduate students may dispute substantive or procedural academic matters, including grades, evaluation of comprehensive examinations and other program requirements; decisions about the student’s continuation in any program; or concerning any other decision with respect to the application of academic regulations and requirements to a student. Decisions related to admission to an academic program, including admission to the doctoral program for current master's students, are not subject to appeal. Appeals must be initiated within the student's home graduate unit unless the appeal relates to a course outside the home unit, in which case, it must be initiated in the graduate unit in which the course was taken, upon notification to the student's home graduate unit chair.

Exception
The process of academic appeal described in this policy must be followed for all disputes except appeals related to failure of a final PhD oral examination or related to termination of registration in a program. Such appeals must be made directly to the SGS Graduate Academic Appeals Board (GAAB). These appeals begin at Graduate Appeal Step 3. In some such cases, the Chair of GAAB may refer the appeal to the Graduate Department Academic Appeals Committee (GDAAC) for prior consideration and a recommendation to GAAB. The GDAAC does not have the right to overturn a failed final PhD oral examination result or a termination of registration, but may recommend that such a decision be considered further by GAAB.

Informal Mediation
At any stage before filing and until the hearing of any appeal with the SGS Graduate Academic Appeals Board, a student may consult the relevant SGS Vice-Dean for advice and/or informal mediation. The Vice-Dean will serve as informal mediator, attempting to resolve the dispute or clarify issues. Timelines are not affected by mediation. Consultation with the Vice-Dean at an early stage is encouraged. In cases where the Vice-Dean has approved the termination of a student's registration or in cases where perceived or actual conflict of interest is identified, the student will have access to an alternate informal mediator.

Steps
The overall graduate appeals process is set out in the table below. Students should note the timelines for each stage carefully.
Step 1 – Informal
In the case of dispute, students must first attempt to resolve the matter with the instructor or other person whose ruling is in question. Should the matter not be resolved with the instructor, and should the student wish to pursue the matter, the student must discuss the matter with the graduate coordinator or associate chair of the department.

Step 2 – Department-level Appeal
Should such discussions fail to resolve the matter, the student may make a formal appeal in writing to the Graduate Department Academic Appeals Committee (GDAAC). The student must complete a Notice of Appeal to the GDAAC; a copy of this Notice is available from the graduate coordinator or associate chair in every graduate department. This form must be completed and delivered to the chair of the department or the chair of GDAAC within the specified timeline of 8 weeks from the date of the decision under appeal. The Chair of the Committee will determine, at his or her sole discretion, whether the appeal will proceed by way of an oral hearing and/or written submissions. In either case, at the conclusion of the hearing and/or review of the written submissions, the GDAAC will make a recommendation to the chair of the graduate department regarding the merits of the appeal. The chair will then render the department-level appeal decision. Guidelines for chairs are made available to all parties in an appeal.

Step 3 – Appeal to GAAB
1. The student may appeal from the decision of the chair of the department by filing a Notice of Appeal to the SGS Graduate Academic Appeals Board (GAAB) within 8 weeks of the decision of the Chair.
2. Appeal to GAAB is the first step for a student who is making an appeal regarding the failure of the final PhD oral examination or termination of registration in a graduate program.

Step 4 – Governing Council Appeal
A decision of the Graduate Academic Appeals Board (GAAB) may subsequently be appealed by a student to the Governing Council's Academic Appeals Committee, in accordance with its guidelines and procedures. An appeal to this Committee shall be commenced by filing a notice of appeal with its Secretary no later than ninety days after the date of the GAAB decision under appeal.
## STEPS AND TIMELINES

<table>
<thead>
<tr>
<th>TIMELINE FOR STUDENT ACTION AT EACH STAGE</th>
<th>STEP</th>
<th>TIMELINE FOR DECISION/ACTION BY UNIVERSITY BODY AT EACH STAGE</th>
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<tbody>
<tr>
<td>See Note A below</td>
<td>See Note B below</td>
<td>See Note C below.</td>
</tr>
<tr>
<td><strong>1. Informal</strong></td>
<td><strong>1. Informal</strong></td>
<td><strong>1. Informal</strong></td>
</tr>
<tr>
<td>a. Student to instructor</td>
<td>a. Student to instructor</td>
<td>a. 8 weeks from decision of chair</td>
</tr>
<tr>
<td>b. Student to graduate coordinator</td>
<td>b. Student to graduate coordinator</td>
<td>b. 8 weeks from decision of chair</td>
</tr>
<tr>
<td><strong>8 weeks from date of decision being appealed</strong></td>
<td><strong>2. Department-level Appeal</strong></td>
<td><strong>2. Department-level Appeal</strong></td>
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<tr>
<td><strong>8 weeks from filing of Notice of Appeal to GDAAC</strong></td>
<td><strong>8 weeks from filing of Notice of Appeal to GDAAC</strong></td>
<td><strong>8 weeks from filing of Notice of Appeal to GAAB</strong></td>
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<td><strong>8 weeks from filing of Notice of Appeal to GDAAC</strong></td>
<td><strong>8 weeks from filing of Notice of Appeal to GAAB</strong></td>
<td><strong>8 weeks from filing of Notice of Appeal to GAAB</strong></td>
</tr>
<tr>
<td><strong>90 days from decision of GAAB</strong></td>
<td><strong>3. SGS Appeal</strong></td>
<td><strong>3. SGS Appeal</strong></td>
</tr>
<tr>
<td><strong>90 days from decision of GAAB</strong></td>
<td>a. Notice of Appeal to GAAB</td>
<td>a. Notice of Appeal to GAAB</td>
</tr>
<tr>
<td><strong>90 days from decision of GAAB</strong></td>
<td>b. Appeal begins here for students who wish to appeal failure of the final PhD oral examination or termination of registration in a graduate program.</td>
<td>b. Appeal begins here for students who wish to appeal failure of the final PhD oral examination or termination of registration in a graduate program.</td>
</tr>
<tr>
<td><strong>90 days from decision of GAAB</strong></td>
<td><strong>4. Governing Council Appeal</strong></td>
<td><strong>N/A</strong></td>
</tr>
<tr>
<td><strong>90 days from decision of GAAB</strong></td>
<td>a. Notice of Appeal to GCAAC</td>
<td><strong>N/A</strong></td>
</tr>
<tr>
<td><strong>90 days from decision of GAAB</strong></td>
<td><strong>4. Governing Council Appeal</strong></td>
<td><strong>N/A</strong></td>
</tr>
</tbody>
</table>

**Note A:** A student may apply, in writing and with reasons, for an extension of time. Such applications may be made to the Chair of GDAAC for department-level appeals or to the GAAB for SGS-level appeals. Any extension is within the discretion of the GDAAC Chair, or the GAAB, as appropriate, where the view is that compelling reasons exist. (Consult with the GCAAC Secretary regarding those guidelines and procedures).

**Note B:** Informal mediation is available via the SGS Vice-Dean at any stage before filing an appeal with the GAAB. Consultation with the SGS Vice-Dean at an early stage is encouraged. In cases where the Vice-Dean has approved the termination of a student’s registration or in cases where perceived or actual conflict of interest is identified, the student will have access to an alternate informal mediator.

**Note C:** The chair of the appeal body retains discretion to extend time limits applicable to its response at any stage where, in its view, compelling reasons exist.

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1 Graduate Department Academic Appeals Committee  
2 Graduate Academic Appeals Board  
3 Governing Council Academic Appeals Committee
Policies and Guidelines

Important School of Graduate Studies policies and guidelines affecting graduate students are included in the SGS Calendar. However, there are numerous additional policies and guidelines affecting graduate studies. These appear on the SGS Web site at www.sgs.utoronto.ca/governance/policy.htm. Furthermore, University of Toronto-wide policies affecting students are posted at www.governingcouncil.utoronto.ca/policies.htm.

Graduate Grading and Evaluation Practices Policy

There are currently two grading policies affecting graduate students: the Graduate Grading and Evaluation Practices Policy (GGEPP) and the University Grading Practices Policy (UGPP). Both are under review. The text of the GGEPP is provided here. The University-wide policy is accessible at www.governingcouncil.utoronto.ca/policies/grading.htm.

Part I: Grades

Meaning of Grades

Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well he or she has command of the course materials.

I.1 A grade assigned in a course is not an assessment of standing within a program of studies. To determine the requirements for credit and standing in a program of studies, the academic regulations of the School of Graduate Studies and the appropriate graduate department, centre or institute should be consulted.

I.2 Grades for each course shall be assigned with reference to the following meanings:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Meaning</th>
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</thead>
<tbody>
<tr>
<td>Excellent</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Adequate</td>
<td></td>
</tr>
<tr>
<td>Inadequate</td>
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</tbody>
</table>

Grade Scales

I.3 Courses taken for graduate credit are assigned a letter grade according to the School of Graduate Studies usage as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Excellent</td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>Good</td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td></td>
</tr>
<tr>
<td>FZ</td>
<td>Inadequate</td>
</tr>
</tbody>
</table>

Wherever an undergraduate course taken by a graduate student is assigned a numerical grade, the mark will be translated into a letter grade according to the following equivalencies:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>90-100%</td>
</tr>
<tr>
<td>A</td>
<td>85-89%</td>
</tr>
<tr>
<td>A-</td>
<td>80-84%</td>
</tr>
<tr>
<td>B+</td>
<td>77-79%</td>
</tr>
<tr>
<td>B</td>
<td>73-76%</td>
</tr>
<tr>
<td>B-</td>
<td>70-72%</td>
</tr>
<tr>
<td>FZ</td>
<td>0-69%</td>
</tr>
</tbody>
</table>
Credit/No Credit Courses
A special category of graduate courses designated in graduate unit listings will be graded Credit (CR) or No Credit (NCR). Such courses are to be offered at the option of the graduate unit and must have the approval of the executive committee of the appropriate Division. CR and NCR evaluations are assigned for courses in which only very broad distinctions in assessing the quality of student performance are judged appropriate.

Non-Grade Course Reports
The following non-grade course reports may appear on transcripts:

INC Incomplete: Assigned as a final report by a graduate unit review committee or SGS Vice-Dean on the basis of incomplete course work in special circumstances (e.g., medical reasons or when there are no grounds for assigning a failing grade). INC carries no credit for the course and is not considered for averaging purposes.

IPR In Progress: Assigned by the instructor as the report for a course which is continued in a subsequent session or program. The final grade for the course will appear only once and only for the last enrolment period. IPR carries no credit for the course and is not considered for averaging purposes.

NGA No Grade Available: Assigned by the division in the extraordinary case that a grade is not available for one of its students enrolled in a course. It must be replaced by a regular grade assigned by the instructor or by another symbol assigned during the divisional review. It carries no credit for the course and is not considered for averaging purposes.

SDF Standing Deferred: Assigned by a graduate unit review committee to a student who has been granted an extension for the completion of course work beyond the SGS deadline for completion of course work and grade submission following the original one for the course. If, by that date, a final grade is not available and the student has not submitted the outstanding course work, then the report of ‘SDF’ will be replaced by a final report of ‘INC’. SDF carries no credit for the course and is not considered for averaging purposes.

TRF Program Transfer: Assigned by the School of Graduate Studies to a continuing research/seminar course begun but not completed in the first program and not required in the new program to which the student has been officially transferred.

WDR Withdrawal without academic penalty: Assigned by the graduate unit review committee, when there are extenuating circumstances, upon approval of the student's request for late withdrawal from a course. It carries no credit for the course and is not considered for averaging purposes.

All grade revisions must be submitted to the School according to the SGS revised grade procedures.

I.4 A table of correspondence and a translation table are defined in the appendix for each letter grade scale included in the University Grading Practices Policy in order to allow the conversion, when necessary, of a grade assigned from one scale to the corresponding grade in the other.

Grade Reporting
I.5 All letter grades assigned to graduate students enrolled in School of Graduate Studies courses shall be from the same scale, but, where approved, the CR/NCR scale may also be used. The grades assigned in a course must all be from the same scale except that non-SGS students in graduate courses will be assigned grades from the refined letter grade scale or the numerical scale of marks as found in Part III.

I.6 Grades in each course shall be reported according to the practice of the division administering the program in which the student is registered (the reporting division).

a) Grades shall be reported as assigned when the division offering the course is also the reporting division, when the offering and reporting divisions use the same grade scale, and when the grades are assigned from the H/P/FL or CR/NCR scales.

b) In all other cases, grades shall be reported as converted to the scale used by the reporting division, and the conversion shall be made according to the tables of correspondence and translation tables defined in the appendix.

I.7 A list of the currently approved non-grade symbols and their meanings from the University Grading Practices Policy is given in the appendix. Those used by the School of Graduate Studies appear above and have in some cases been modified for graduate courses.

I.8 The information in grade reports and transcripts must be communicated to the user, whether within or outside the University, in a clear and meaningful way. To that end, transcripts issued by the School of Graduate Studies must indicate the relationships between the graduate grade scale, the grade mean-
ings, the basic letter grade scale and the scale of numerical marks as well as the translation table. A list of non-grade symbols and meanings shall also be included in the transcript.

**Part II: Grading Procedures**

**Course Procedures**

II.1 To ensure that the method of evaluation in every course reflects appropriate academic standards and fairness to students, the School has adopted these regulations governing course procedures.

a) As early as possible in each course (and no later than the School's last date for course enrolment), the instructor shall make the method(s) by which student performance shall be evaluated available to the class, and shall file with the department, centre or institute, the method(s) by which student performance shall be evaluated.

This information should describe the method(s) (essays, tests, examinations, seminar presentations, etc.), the relative weight of these method(s) in relation to the overall grade, and the timing of each major evaluation.

Any penalties for late completion of, and for failure to complete work, should be announced at the time the instructor makes available to the class the method(s) by which student performance shall be evaluated.

b) After the method(s) of evaluation have been made known, the instructor may not change them or their weight without the consent of at least a simple majority of the students enrolled in the course. Any changes shall be reported to the department, centre, or institute.

c) The relative value of each part of an examination shall be indicated to the student at the time of the examination. In the case of a written examination, the value of each part shall be indicated on the examination paper.

d) Commentary, appropriate in the instructor's judgement, on assessed work, other than final examinations, and time for discussion of it shall be made available to students. Commentary, appropriate in the instructor's judgement, on final examinations and time for discussion of it shall be made available to students at their request.

e) Grades shall be recommended by the instructor in reference to the approved grade scales on the basis of each student's performance.

**Examinations**

II.2

a) Students should be provided with clear information about the expectations of the examiners, including the types of anticipated questions.

b) Students should have the opportunity to review their answers in written examinations within four months of the reporting of the grades. A recovery fee may be set to cover administrative costs, including photocopying.

c) The School has developed a procedural guide for the re-reading, by an external reviewer, of examinations written for courses by graduate students. It is to be used only when departmental appeal mechanisms have been exhausted. Costs of preparing materials for the external reader are shared between the graduate unit and the student.

**Other Departmental Assessments**

II.3 Departments, centres, or institutes may expect graduate students to complete requirements for a degree other than course work, such as departmental examinations, language examinations, field work or internships. Graduate students should be given a written statement describing the evaluation processes. It is appropriate that departmental evaluations of performance in these settings should accord with the principles enunciated in the other sections of this Graduate Grading and Evaluation Practices Policy, and that the effect upon deadlines of disruptions to academic programs, as described below, be taken into account. Students should also be informed of procedures for appeal.

**Grade Review and Approval Process**

II.4

a) Grades shall be recommended by the instructor to the chair or director, or designate, of the graduate department, centre or institute. The grades shall be reviewed and approved following the graduate unit’s procedure. Grades shall not be reported or released to students as official until this review procedure has been carried out. Normally, the graduate unit’s review and approval by the chair or director constitutes final approval of grades, under the authority of the Dean of the School. Grades may be changed on appeal by the student, following the procedures of the School. Decisions regarding these matters will be made by the chair of the department.

b) The distribution of grades in any course shall not be predetermined by any system of quotas that specifies the number or percentage of grades allowable at any grade level.

c) The graduate unit’s review of grades may result in the request for clarification of the evaluation methods used, or of apparent anomalies in the list of grades in a course. In the case of anomalies, the chair or director, or designate, must discuss the grade(s) with the instructor; no grade should be changed without such discussion. In the event the matter is not settled to the mutual satisfaction of the chair or director, or designate, and the instructor, the matter shall be referred to the Vice-Dean of SGS. If it is not settled at that level it should be referred to the Dean of the School whose authority for the assigning and reporting of grades is final (subject only to the formal appeals procedures of the School).

d) At any time, the School may request an explanation of any grades for a course that appear not to be based on the approved grade scales or otherwise appear anomalous in reference to this Policy.
Exceptional Circumstances and Academic Appeals

II.5
a) Students with health problems or other personal circumstances which may adversely affect their performance in, or their ability to complete course work, examinations or other departmental assessments may request special consideration. Requests, supported by a medical certificate, or other appropriate evidence, should be submitted to the instructor or the coordinator of graduate studies as soon as possible or within 48 hours of the deadline or date of assessment. The medical certificate must confirm the student was adversely affected by the health problems and must show the dates of illness and that the physician was consulted at the time of the illness.
b) Students may on occasion dispute substantive or procedural academic matters, including grades. The recommended route for the resolution of such disputes is to discuss the matter first with the instructor or the person whose ruling is in question. If the dispute persists, the student may wish to pursue a formal academic appeal – see Academic Appeals in the General Regulations section of this Calendar.

Conflict of Interest

II.6 When the instructor or a student has a conflict of interest, or is in a situation where a fair and objective assessment may not be possible, this should be disclosed to the chair or director, or designate, who shall take steps to ensure fairness and objectivity.

Procedures in the Event of Disruption

II.7
a) In the event of disruption of the graduate academic program, the following principles shall apply:
   i. the academic integrity of academic programs must be honoured; and
   ii. students must be treated in a fair manner, recognizing their freedom of choice to attend class, and to use academic facilities, or not, without penalty. Decisions regarding these matters will be made by the chair of the department.
b) The Vice-President and Provost, or the Academic Board, shall declare when a disruption of the graduate academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.
c) Instructors responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.
d) Changes in classroom procedures should, where possible, first be discussed with students prior to the class meeting in which a vote is to be taken by the students present on the proposed changes. Changes agreed upon unanimously should be forwarded to the chair or director, or designate, with a report on the attendance at the class.
If unanimity on changes has not been arrived at, or where a vote is not feasible, the instructor, after the class discussion, will provide the chair or director, or designate, with his or her recommendation, along with the results of any classroom votes. The chair or director, or designate, shall then make a decision.
e) If classes are not able to convene, the instructor, with the prior approval of the chair or director, or designate, shall make changes deemed necessary to the classroom procedures.
f) In the absence of the instructor such changes will be made by the Dean in consultation with the chair or director, or designate, and with the approval of the Provost.
g) If courses are to be cancelled, approval of the SGS Council is required. If Council cannot meet, the approval of the Dean, or in the absence of the Dean, the approval of the Provost, is required.
h) Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the office of the graduate unit, reporting to SGS Council, as well as listing in the campus press. When classes resume, students must be informed, at class, of any changes made during the disruption.
i) If changes to the classroom procedures are made, students who do not wish to complete the course under the revised procedures may withdraw without academic penalty. This must be done prior to the last day of classes.
j) If students have not attended classes that are meeting, they nonetheless remain responsible for the course work and for fulfilling course requirements. However, where possible, reasonable extension of deadlines for course requirements, or provision for make-up tests, shall be made. Reasonable alternative access to material covered should be provided.
k) A student who feels, owing to his or her special circumstances, that changes to classroom procedures have unreasonably affected his or her grade may appeal the grade following procedures for appeal set out above.

Part III: Administrative Appendix

Available at www.governingcouncil.utoronto.ca/policies/grading.htm.

Intellectual Property

Intellectual property created at the University of Toronto is governed by its Inventions Policy and its Copyright Policy: www.governingcouncil.utoronto.ca/policies/invent.html www.governingcouncil.utoronto.ca/policies/copyright.htm

Works subject to the Canada Copyright Act are owned by their authors unless undertaken in the course of University employment or by specific commission. Inventions are initially owned jointly by the inventors and the University. Except where otherwise determined
by a separate third-party agreement, the University’s Inventions Policy allows inventors to assume full ownership of their intellectual property. Faculty members have an obligation to inform students if they are involved in research funded under agreements that grant intellectual property rights to a sponsor. Faculty members also have an obligation to inform students in advance if the student’s course work is related to the business of a company in which the faculty member has a financial interest.

Prior to commercialization, all intellectual property, including software, must be disclosed to the University of Toronto Research Services (UTRS). If the inventor(s) choose to assume full ownership, the University will assign its ownership interest to them in return for certain undertakings, including remitting to the University 25% of any proceeds from commercialization.

Among the commercialization options available to inventors is the expertise of Innovations at U of T (IUT). IUT combines the University’s internal technology transfer operation with its former commercialization agency, the Innovations Foundation. IUT connects researchers with businesses and also facilitates licenses and patents.

Researchers are advised that public disclosure of any kind (written, verbal, or electronic) of intellectual property prior to the filing of a patent application may severely damage its commercial value. However, confidential disclosure to the University does not constitute a public disclosure.

Copies of the Inventions Policy, the Copyright Policy, the Confidential Disclosure Forms, and the SGS Guidelines on Intellectual Property for Graduate Students and Supervisors are available from IUT, UTRS, and SGS or can be printed conveniently from the Web sites listed.

Telephone: (416) 978-7833
Fax: (416) 978-5821
E-mail: ip.officer@utoronto.ca
Web: www.research.utoronto.ca/ipc/index.html
www.innovations.utoronto.ca
www.sgs.utoronto.ca/governance/policies/intellectual-prop.htm

Research Ethics

The University Policy on Ethical Conduct in Research requires each academic division to formulate its own guidelines. The divisional guidelines apply to graduate students enrolled in graduate units within those faculties. See also SGS Student Guide on Ethical Conduct of Research Involving Human Subjects on the SGS Web site: www.sgs.utoronto.ca/governance/policies/ethicresearch.htm.

Policy on Academic Sanctions for Students who have Outstanding Obligations to the University

Academic sanctions are applicable to any student who has an outstanding obligation to the University. Recognized obligations are as follows:
1. tuition fees
2. academic and other incidental fees
3. residence fees and other residence charges
4. library fines
5. bookstore accounts
6. loans made by colleges, faculties or the University
7. health service accounts
8. unreturned or damaged instruments, materials and equipment
9. orders for the restitution, rectification, or the payment of damages, fines, bonds for good behaviour, and requirement of public service work imposed under the authority of the Code of Student Conduct.

The following academic sanctions will be imposed on students who have outstanding recognized financial obligations to the University.
1. Statements of results or official transcripts of record, or both will not be issued.
2. The University will not release the official document (called the diploma) which declares the degree earned, nor provide oral confirmation or written certification of degree status to external enquirers. Indebted graduands will be allowed to walk on stage and have their names appear on the convocation program.
3. Registration will be refused to a continuing or returning student. Payments made by continuing or returning students shall be applied first to outstanding University debts, and second, to current fees.

For a complete online text of this policy, please see the Governing Council Web site www.governingcouncil.utoronto.ca/policies/sanction.htm.

Code of Behaviour on Academic Matters

The Governing Council of the University of Toronto has approved a Code of Behaviour on Academic Matters applying to members of the University. The Code of Behaviour on Academic Matters addresses the responsibilities of all parties to the integrity of the teaching and learning experience. It concerns the accountability of faculty members and students as they cooperate in all phases of this relationship. Honesty and fairness must inform these activities, the foundation of which is mutual respect for the aims of education and for those ethical principles which characterize the pursuit and transmission of knowledge within the University.

The Code addresses offences, procedures, sanctions: more information appears in three appendices. The Code is enforced by Divisional Deans, the Provost, and the University Disciplinary Tribunal.

In cases involving graduate students, the divisional dean is the Dean of the School of Graduate Studies.
The full text of the Code of Behaviour on Academic Matters is available on the University of Toronto Web site at www.governingcouncil.utoronto.ca/policies/behaveac.htm.

Policy and Procedures: Sexual Harassment
Harassment in any situation is reprehensible. In particular, within the University community it fosters a hostile or unfair environment which counteracts the spirit of cooperation and education. To guard against sexual harassment, the Governing Council of the University of Toronto has approved a Policy and Procedures: Sexual Harassment, which protects students, faculty, and staff from sexual harassment within the University community. All complaints will be guided by a spirit of fairness to each party and insures a fair and impartial hearing. Under the policy, complainants have the right to seek a remedy and respondents have the right to know both the allegations and the accuser. The highest standards of confidentiality are maintained in order to protect any party against unsubstantiated claims which might result in harm or malicious gossip. The full text of the policy and procedures is available at www.governingcouncil.utoronto.ca/policies/sexual.htm.

Code of Student Conduct
Students have an obligation to make legal and responsible decisions concerning their conduct. The University has no general responsibility for the moral and social behaviour of its students. In the exercise of its disciplinary authority and responsibility, the University recognizes that students are free to organize their own personal lives, behaviour, and associations subject only to the law and to University regulations that are necessary to protect the integrity and safety of University activities, the peaceful and safe enjoyment of University housing by residents and neighbours, or the freedom of members of the University to participate reasonably in the programs of the University and in activities in or on the University’s premises.

Non-academic offences are defined in the University's Code of Student Conduct. The Code addresses offences, procedures, interim conditions and measures, and sanctions.

The full text of the Code of Student Conduct is available on the University of Toronto Web site at www.governingcouncil.utoronto.ca/policies/studentc.htm.

Policy on Access to Student Academic Records
Academic records of students are ultimately the property of the University; it is the responsibility of the University to establish overall University policy in this area. The Policy on Access to Student Academic Records establishes university-wide aims, objectives, criteria and procedures which apply to the academic records of students.

The Policy ensures that students, alumni, and former students are allowed as great a degree of access to their own academic records as is academically justifiable and administratively feasible. A student's right to privacy in relation to his or her academic records is safeguarded as far as both internal university access and external public access are concerned. The Policy calls for basic university-wide consistency in the kinds of information collected, recorded, filed and made available.

The complete Policy on Access to Student Academic Records is available on the University of Toronto Web site www.governingcouncil.utoronto.ca/policies/sturec.htm.

Policy on Official Correspondence with Students
The University and its divisions may use the postal mail system and/or electronic message services (e.g., electronic mail and other computer-based online correspondence systems) as mechanisms for delivering official correspondence to students.

Official correspondence may include, but is not limited to, matters related to students’ participation in their academic programs, important information concerning University and program scheduling, fees information, and other matters concerning the administration and governance of the University.

Postal Addresses and Electronic Mail Accounts
Students are responsible for maintaining and advising the University, on the University’s student information system (currently ROSI), of a current and valid postal address as well as the address for a University-issued electronic mail account that meets a standard of service set by the Vice-President and Provost.

Failure to do so may result in a student missing important information and will not be considered an acceptable rationale for failing to receive official correspondence from the University.

University Rights and Responsibilities Regarding Official Correspondence
The University provides centrally-supported technical services and the infrastructure to make electronic mail and/or online communications systems available to students. University correspondence delivered by electronic mail is subject to the same public information, privacy and records retention requirements and policies as are other University correspondence and student records. The University’s expectations concerning use of information and communication technology are articulated in the guidelines on Appropriate Use of Information and Communication Technology, available on the Web site of the Office of the Vice-President and Provost at www.provost.utoronto.ca/policy/use.htm.
Students' Rights and Responsibilities Regarding Retrieval of Official Correspondence

Students are expected to monitor and retrieve their mail, including electronic messaging account(s) issued to them by the University, on a frequent and consistent basis. Students have the responsibility to recognize that certain communications may be time-critical. Students have the right to forward their University-issued electronic mail account to another electronic mail service provider address but remain responsible for ensuring that all University electronic message communication sent to the official University-issued account is received and read.

To read an online version of this policy, visit www.governingcouncil.utoronto.ca/policies/studentemail.htm.

Safety in Field Research

The University of Toronto Policy for Safety in Field Research states that working responsibility for safety in field research rests primarily upon the persons who directly supervise and carry out the research on location. Such persons are expected at all times to use good common sense. The University's concern in this policy is to require that due diligence be exercised by all concerned parties in giving attention to the nature of, and the means for dealing with, the categories of risk that may be associated with each location and kind of field research. It is the intention of the University that participants enter into field research on the basis of their informed understanding of the associated risks and their consent to the means for dealing with such risks

Students engaged in field research beyond the University's geographical boundaries should be familiar with the section of the policy which sets out the Requirements for Personal Care, and Responsibilities and Procedures.

The full policy is available on the University of Toronto Web site at www.governingcouncil.utoronto.ca/policies/safefr.htm

Statement on Appropriate Use of Information and Communication Technology

The University of Toronto provides guidelines on the appropriate use of information and communication technology (ICT) within the University community. ICT resources are made available for all employees, students, and other members of the university community, but remain the property of the University. Users are expected to limit their use to the performance of University-related activities, although a reasonable allowance will be made for personal use. Users should not have an expectation of complete privacy in using the University's ICT and related services.

The full text of the guidelines is posted on the Provost's Web site at www.provost.utoronto.ca/policy/use.htm

Statement on Human Rights

Acknowledging its fundamental and distinctive commitment to freedom of thought, inquiry, and expression, the University of Toronto affirms its commitment to the values of equal opportunity, equity, and social justice. In this affirmation, the university

1. acknowledges that it conducts its teaching, research and other activities in the context of a richly diverse society;
2. recognizes that the attainment of excellence in pursuit of its mission is furthered by the contribution made by persons reflecting this rich diversity;
3. acts within its purview to prevent or remedy discrimination or harassment on the basis of race, gender, sexual orientation, age, disability, ancestry, place of origin, colour, ethnic origin, citizenship, creed, marital status, family status, receipt of public assistance, or record of offence;
4. acts conscientiously in keeping with its own policies and existing legislation related to human rights, such as its Code of Behaviour on Academic Matters, its Policies and Procedures: Sexual Harassment, its Employment Equity Policy and the Human Rights Code of the Province of Ontario.
Degree Regulations

All degree students are accepted under the General Regulations of the School of Graduate Studies. See section 1 in this calendar.

The University of Toronto offers graduate programs leading to doctoral and master's degrees. Admission and program requirements for degree programs that are offered in multiple graduate units are outlined in this section. Admission and program requirements for degree programs that are specific to one graduate unit are outlined in section 6 titled Graduate Programs.

Doctoral Degrees

The University of Toronto offers programs of study leading to four doctoral degrees.

Doctor of Education (EdD)

The EdD program is designed to provide opportunities for more advanced study for those already engaged in a career related to education. Specific admission and program requirements are available through the graduate units.

Admission Requirements

1. A University of Toronto MEd or MA in Education, or its equivalent from a recognized university, in the same area of specialization proposed at the doctoral level, completed with standing equivalent to a University of Toronto B+ or better;
2. Ordinarily, one year of professional preparation for education;
3. Successful professional experience in education, or in a relevant field.

A student may be enrolled in one of the following graduate units:
- Adult Education and Counselling Psychology
- Curriculum, Teaching and Learning (Admission to the EdD has ceased and the program will close when there are no more students registered in the program.)
- Human Development and Applied Psychology (Admission to the EdD has ceased and the program will close when there are no more students registered in the program.)
- Sociology and Equity Studies in Education
- Theory and Policy Studies in Education

Program of Study

For specific program and registration requirements, consult the home graduate unit.
1. Normally, a minimum of one Fall Session and one Winter Session of full-time study must be taken consecutively (i.e., Fall Session - September to December, followed by Winter Session - January to April, or Winter Session - January to April, followed by Fall Session - September to December).
2. In most programs, students may begin their studies on a part-time basis.
3. Eight half-courses are required for students who have an MEd or MA degree or the equivalent in the same area of specialization proposed at the doctoral level.
Upon the recommendation of the home department, students beginning the degree program on a full-time basis can add prerequisite courses to their program. Otherwise, students must take prerequisite courses as “Special Students” at OISE/UT.

An eight half-course EdD program should include at least four half-courses in the home department except as otherwise stated in departmental program descriptions.

4. Students in some departments or specializations will be required to take a comprehensive examination. Consult specific departments for details.

5. A thesis embodying the results of original investigation conducted by the student under the direction of an OISE/UT thesis committee. The student must file the names of thesis committee members by April 1 of the year following the period of required full-time study.

The thesis will report the results of a study, which might address theoretical issues applicable to professional concerns and practice, or which might focus directly on the exploitation of knowledge in order to study or influence aspects of educational practice. The thesis must conform to the tenets of scholarly writing in a rigorous style of presentation. All students using human subjects in their thesis research must have their thesis proposals reviewed by the OISE/UT-wide Student Education Ethics Review Committee (SEERC) administered by University of Toronto Research Services (UTRS). Please consult the OISE/UT Guidelines for Theses and Orals regarding thesis and ethical review procedures.

6. Students undergo a final oral examination on the content and implications of the thesis, to determine the adequacy of both the thesis and its defence by the student.

7. All requirements for the EdD must be completed within six years of first enrolment as an EdD student.

**Doctor of Juridical Science (SJD)**

Admission and program requirements for the Doctor of Juridical Science degree program are outlined in the Law entry in the section titled Degree Programs by Graduate Unit.

**Doctor of Musical Arts (DMA)**

Admission and program requirements for the Doctor of Musical Arts degree program are outlined in the Music entry in the section titled Degree Programs by Graduate Unit.

**Doctor of Philosophy (PhD)**

For specific admission and program requirements, please consult graduate unit entries. The Council of the School of Graduate Studies has recommended that all graduate units offering the PhD design a four-year program that can be completed on a full-time basis by a student who has a master’s degree in a discipline appropriate to the intended field of study. Where graduate units are aware that it may be difficult for students to complete their PhD programs within four years, they have been asked to include a statement to that effect in their calendar entries.

**Admission Requirements**

1. **Four-Year PhD Program**

   Students admitted to this program require a University of Toronto master’s degree or equivalent with at least B+ standing from a recognized university in a discipline deemed appropriate to the intended field of study.

2. **Five-Year PhD Program**

   Students admitted to this program require a four-year University of Toronto bachelor’s degree or its equivalent with at least A- standing from a recognized university in courses in the relevant discipline. Students who hold a master’s degree in another discipline or require further preparation would also normally be admitted to this program.

**Registration**

1. A Doctor of Philosophy student must be regularly registered in the School of Graduate Studies in accordance with the procedures of the General Regulations. PhD students must register for every successive session, including summers, on a full-time basis following their first session of registration unless granted a leave of absence. The minimum period of registration is one academic year, that is, three consecutive sessions.

2. A student who is admitted on condition that the requirements for an acceptable master’s degree at another university be completed may be permitted conditional registration, unless this is excluded by the terms of the letter of admission. A student who is conditionally registered must submit to the graduate unit, not later than January 31 of the first year of enrolment, official verification of completion of the requirements for the master’s degree. If verification is not submitted by that date, additional requirements may be added to the PhD program.

**Transfers**

1. **Master’s to PhD**

   A student may be recommended for transfer from a master’s program to a PhD program. In such cases, the student will transfer to a five-year PhD with the years in the master’s program being counted as part of the PhD program. The total number of courses required for the PhD is the sum of the normal master’s and PhD course requirements unless otherwise specified by the graduate unit.

2. **PhD to Master’s**

   Students transferring from the PhD to the master’s program must complete all of the normal master’s degree requirements, or their equivalent, in order to be awarded the master’s degree. These transfers are made on the recommendation of the graduate unit and must be approved by the SGS Vice-Dean,
Students. A second University of Toronto master’s degree of the same name will not be conferred unless it is undertaken in a different field of study from the first. Students who transfer from the PhD to the master’s program will not be permitted to register subsequently in the PhD program within the same graduate unit unless approved by the SGS Admissions and Programs Committee.

Program Requirements
1. Approval
A student shall pursue a program of advanced study and research which must be approved by the graduate unit.

2. Program
Specific program requirements are set by the graduate units and are found in their respective entries. The thesis topic and the name of the supervisor must be submitted by the middle of the first session of the second year. Graduate units may, at their discretion, require an earlier date.

3. Language Requirement
The student must have an adequate knowledge of such language or languages, other than English, as are required by the major graduate unit (see individual graduate unit entries for specific requirements). Testing and certification of languages (including French and German) may be administered by the appropriate language department or by the student’s own graduate unit. The major graduate unit is responsible for ensuring that an acceptable certificate of language competence is deposited in the official student file.

4. Candidacy: Requirements and Time Limit
A student enrolled in a full-time (as opposed to a flexible-time) PhD degree program will be denied further registration in that program and will have his or her eligibility terminated at the end of the third year of registration, in the case of a four-year program, or at the end of the fourth year of registration, in the case of a five-year program, if by that time either:

- the student has not completed all requirements for the degree exclusive of thesis research—including course requirements, language requirements, qualifying departmental examinations—or
- the student does not have an approved thesis topic, supervisor, or supervisory committee.

Note: The foregoing time limit does not apply to courses that run continuously throughout the program, e.g., ongoing research seminar courses.

In exceptional circumstances, a student who has not met these requirements may be permitted to register in the program for up to 12 months at the discretion of the graduate unit concerned. Completion beyond 12 months will require the approval of both the graduate unit and the SGS Admissions and Programs Committee. Completion of the program requirements identified above will signal the achievement of candidacy.

5. Thesis
The candidate, through the graduate unit, shall present a thesis embodying the results of original investigation, conducted by the candidate, on the approved topic from the major field. The thesis shall constitute a significant contribution to the knowledge of the field and must be based on research conducted while registered for the PhD program. A thesis should have a coherent topic with an introduction presenting the general theme of the research and a conclusion summarizing and integrating the major findings. Nonetheless, it may contain a collection of several papers. The collection of papers may be expanded or supplemented by unpublished material, scholarly notes, and necessary appendices. In all theses, pagination should be continuous; there should be a common table of contents and an integrated bibliography for the whole thesis. A thesis must be prepared in a standard format (see National Library guidelines and Guidelines for the Preparation of Theses referred to below).

The thesis should normally be written in English, but with the permission of the School, a graduate unit may permit, or require, students in that unit to write the thesis in French.

In Division I, the humanities, permission may be given for a thesis to be written in a language other than English or French when the language has been approved for use in theses by the graduate unit concerned. Before such permission can be granted, the graduate unit chair must certify in writing to the School that the candidate has passed a supervised essay-type examination, written in English, that demonstrates his or her proficiency in writing correct and idiomatic English prose. A supplementary abstract of about 5,000 words in English or French must form part of a thesis that is written in a language other than English or French, and no language other than English or French may be used for the conduct of final doctoral examinations.

6. Time for Completion of Degree
All requirements must be completed within six years from first enrolment for the four-year PhD program and within seven years for the five-year PhD program. In exceptional circumstances, a candidate who has failed to complete all the requirements for the degree within this period may be considered for a maximum of two one-year extensions provided that the graduate unit concerned approves. To qualify for an extension, the candidate must present to the graduate unit concerned the causes for the delay and evidence of substantial progress on the thesis. A candidate who is granted an extension must register as a full-time student. Any extension granted must be calculated as beginning immediately upon the termination of the permitted periods.

PhD students who have not completed the degree before the time limit for the degree or by the end of the extension period may not enrol further but, after an interval, may apply to be re-instated once only as a candidate for the purpose of presenting a thesis.
and defending it at a final oral examination. The reinstatement must have the approval of both the graduate unit and SGS. It will be for a maximum of 12 months starting September, January, or May. Reinstatement is normally not approved until the defence has been scheduled. The final oral examination must be held within the 12-month reinstatement period. A student reinstated after the degree time limit will pay a reinstatement fee equivalent to a one session full-time fee (Fall or Winter). No fees will be charged for the sessions after the normal time limit for the degree during which the student was not registered. In the case of a reconvened examination for a student reinstated after the normal time limit for the degree, no fees would be charged, but the student must remain registered.

Flexible-time PhD Degree
Departments may develop, for approval, PhD programs which may be completed on a “flexible-time” basis. Such programs will be offered where there is sufficient demand by practicing professionals for design and delivery of PhD programs that, except for short specified periods of time, permit continued employment in areas related to the fields of research. In these programs, theory and praxis would uniquely engage and inform each other.

The flexible-time PhD differs from the full-time PhD only in design and delivery. Students in a flexible-time program will normally register full-time during the first four years and part-time during subsequent years of the program. Students are required to be registered for every successive session, including summers, following their first session of registration unless granted a leave of absence.

The time limit, between six to eight years, will be specified by the departmental regulations. Extensions are permitted under existing policy; students granted an extension may register full-time or part-time.

Transfers between the full-time PhD program and the flexible-time PhD program will not be permitted.

Final Oral Examination
1. The candidate shall defend the thesis at a final oral examination organized by the graduate unit with the cooperation of SGS. The process of scheduling the examination, allowing time for professional appraisal, can be expected to take at least eight weeks at the best of times, and candidates should discuss the timing with the graduate administration of their unit. Candidates should also ascertain whether or not their unit imposes regulations over and above the minimal conditions required by SGS.

2. The graduate unit will notify SGS eight weeks prior to the examination when the thesis is ready to go forward for examination. In the absence of any particular local procedure, the candidate’s supervising committee will advise SGS that the thesis is ready to proceed. In rare cases, a thesis may proceed to examination without the approval of the supervising committee: candidates should contact the SGS Vice-Dean, Programs.

3. The thesis will be sent to an appraiser external to the University of Toronto, appointed by SGS on the recommendation of the graduate unit. (The Supervisor of the thesis will propose a list of three or more names of possible external appraisers to the graduate coordinator or Chair, who will choose one and send the recommendation to SGS for approval. The graduate unit will certify that the external appraiser has an arm’s-length relationship to the candidate and Supervisor.) The external appraiser should be a recognized expert on the subject of the thesis and should be external to the University as well as to its affiliated teaching hospitals and research institutes. Such an individual must be an associate or full professor at the home institution or, if the individual comes from outside the academic sector, must possess the qualifications to be appointed to an academic position at this level. Arrangements with external appraisers are the responsibility of the graduate unit. In particular, the graduate unit must allow the external appraiser sufficient time to act. The graduate unit must have a copy of the thesis delivered to the appraiser at least six weeks, and preferably longer, in advance of the examination date. Appraisals must be submitted to SGS at least two weeks in advance of the examination date; if they are not, the examination may have to be rescheduled. The graduate unit must also ensure that copies of the thesis are made available to all other voting members of the Examination Committee at least four weeks in advance of the examination date.

4. An Examination Committee, appointed by SGS on the recommendation of the graduate unit, will conduct the Final Oral Examination. The Examination Committee must include at least four, but no more than six, voting members: one to three of the voting members will have served on the candidate’s Supervisory Committee, and at least one voting member will not have been closely involved in the supervision of the thesis. Eligible for inclusion in the latter group are the external appraiser (in person or by audio connection), members of the graduate faculty of the candidate’s graduate unit, and members of the graduate faculty of other departments, centres, or institutes of the University. The Examination Committee may include, in addition, up to two non-voting members, who will be members of the graduate faculty of the candidate’s graduate unit or members of the graduate faculty of another graduate unit of the University. A quorum is four voting members. Graduate units must ascertain in advance the willingness of the persons named to act. The SGS Vice-Dean, Programs, may modify the composition of the Examination Committee to fit exceptional circumstances.

5. SGS will appoint a non-voting Chair to the Examination Committee. The Chair will be a full member or member emeritus of the graduate faculty, holding no
appointment to the graduate faculty of the candidate's graduate unit.

6. The graduate unit is responsible for scheduling the examination, booking a room, and making appropriate technical arrangements.

7. The graduate unit must submit to SGS a Certificate of Completion together with the nomination form confirming completion of all other academic requirements, such as language and field requirements; an abstract of the thesis not longer than 350 words; and a copy of the Examination Program.

8. The graduate unit will send a copy of the external appraisal of the thesis to SGS as soon as it is received. The graduate unit is responsible for the distribution of copies of the external appraisal to the candidate (two weeks before the examination) and members of the Examination Committee. To avoid prejudicing the result of the examination, the external appraisal is not to be discussed with the candidate by members of the Examination Committee until the examination takes place, nor should it be distributed beyond that group and the relevant administrative officers.

9. Members of the graduate faculty are entitled to attend the examination, and with the permission of the Chair, they may ask questions of the candidate, but they must withdraw before the Committee's discussion and vote. A qualified observer may attend, subject to the same restrictions, if the graduate unit has received approval for such attendance in writing beforehand from the SGS Vice-Dean, Programs. Otherwise the examination is closed to the public. The vote at the examination takes into account both the thesis and the oral defence itself.

10. The Examination Committee represents the SGS Graduate Education Council and through it the University. It is therefore responsible for the standard of the PhD degree in this University. Graduate unit examinations held immediately in advance of the final oral must not therefore interfere with attendance at, or thoroughness of, the final examination. The Committee must evaluate the external appraisal of the thesis, which is to be considered only as an individual opinion to be employed as the committee sees fit. It must examine the candidate on the content and implications of the thesis. Where someone other than the candidate is a co-author of any portion of the thesis, the Examination Committee must be satisfied that the candidate's personal contribution to the thesis is sufficient to fulfill the requirements of the PhD degree. In addition to determining the adequacy of the thesis, the committee must satisfy itself that the thesis document meets the proper standards of scholarship.

The committee possesses the full authority of the School with respect to the examination.

11. A quorum for the final examination is four voting members, plus the Examination Committee Chair who has no vote. Voting shall be by signed ballot, and the names of the examiners and their respective votes shall be read to the Examination Committee by the Chair. If a quorum is not present the Chair may delay the examination to obtain a quorum or may postpone the examination to another date.

12. The candidate passes on the first examination:
   a) if the decision is unanimous, OR
   b) if there is not more than one negative vote or abstention.

If there is more than one negative vote or abstention, adjournment is mandatory.
In the event of adjournment, the Examination Committee must provide the candidate, as soon as possible, with a written statement that indicates the reasons for adjournment and the committee's requirements for the reconvened oral examination. In addition, the Examination Committee must decide the approximate date of the reconvened examination.

The time between the adjourned examination and the reconvened examination should be as short as circumstances will permit and in no case shall exceed one year.

At the reconvened examination, no new committee members shall be added, except for necessary replacements. It is the obligation of the examiners to attend the reconvened examination.

The candidate passes on the reconvened examination:
   a) if the decision is unanimous, OR
   b) if there is not more than one negative vote or abstention.

No further adjournment will be allowed.
If a candidate is not recommended for the degree by the committee in charge of the second examination, the candidate is ineligible for further PhD candidacy at the University. The Examination Committee must provide the candidate, as soon as possible, with a written statement that explains clearly and directly why the examiners found the candidate's performance unsatisfactory on the written and/or oral components of the examination, as may be relevant.

13. If minor corrections in style are a condition of acceptance of the thesis, the candidate must complete the corrections within one month of the date of the examination, and the supervisor will inform the candidate of the necessary corrections. The supervisor must notify the School of Graduate Studies directly in writing that the required corrections have been made by the candidate, with a copy of the correspondence sent to the graduate coordinator of the graduate unit, before the candidate is recommended for the degree.

14. If minor modifications are a condition of acceptance of the thesis, the Chair of the Examination Committee will appoint a Subcommittee of the Examination Committee (to be approved by the Examination Committee) to supervise the proposed modifications. One member of the Subcommittee is designated by the Chair, with the approval of the Examination Committee, as the Convenor. The Convenor will be responsible for the preparation of a statement detailing the modifications required. Modifications must be completed within three months of the date of the oral examination. The members of the Subcommittee will report on the acceptability of the completed
modifications to the Convenor. If all members of the Subcommittee approve the completed modification, the candidate will be passed without the necessity of reconvening the Examination Committee. The Convenor of the Subcommittee must certify in writing to the School of Graduate Studies, within three months of the original examination, that the modifications have or have not been satisfactorily completed. If one or more members of the Subcommittee do not approve the completed modifications, the final oral examination must be reconvened within a year of the date of the original examination. The Examination Committee must decide the nature of minor modifications, but it is intended that minor modifications should be more than corrections in style and less than major changes in the thesis. A typical example of minor modifications might be clarification of textual material or qualification of research findings and conclusions. The option of acceptance with minor modifications does not apply to the reconvened examination.

If major changes are required, the examination must be adjourned and the Committee reconvened after the changes have been made.

15. The University Library authorization form and publication agreement must be signed by the candidate when the final thesis is submitted. The format of the submitted thesis must comply with the School of Graduate Studies guidelines.

16. The School requires that every PhD thesis be published substantially as it is accepted. It is the intention of the University of Toronto that there be no restriction on the distribution and publication of theses. However, in exceptional cases, the author, in consultation with the thesis supervisor and with the approval of the chair of the graduate unit, shall have the right to postpone distribution and publication for a period up to two years from the date of acceptance of the thesis. In exceptional circumstances and on written petition to the Dean of the School of Graduate Studies, the period might be extended, but in no case for more than five years from the date of acceptance of the thesis unless approved by the SGS Graduate Education Council.

For further details, students should consult the pamphlet, Guidelines for the Preparation of Theses at www.sgs.utoronto.ca/informationfor/students/finish/final.htm.

Master’s Degrees

The University of Toronto offers programs of study leading to the master's degrees listed below.

Master of Applied Science (MASc)

The MASc degree is intended primarily for those who wish to prepare for a career in research and/or plan to continue their graduate studies through the PhD degree.

Admission Requirements

1. Students are admitted under the general regulations.
2. Applicants shall hold the degree of Bachelor of Applied Science of this University or an equivalent degree in engineering. An applicant having a bachelor’s degree in science or applied mathematics may be admitted as a student by the graduate unit concerned.

A student may be enrolled in one of the following graduate units:
- Aerospace Science and Engineering
- Biomaterials and Biomedical Engineering
- Chemical Engineering and Applied Chemistry
- Civil Engineering
- Electrical and Computer Engineering
- Geology
- Materials Science and Engineering
- Mechanical and Industrial Engineering

Program of Study

1. Under the direction of one graduate unit, a student in this University shall pursue a program of advanced study approved by the graduate unit. Normally the program shall include not more than three full-year courses or equivalent and the preparation of a research thesis, the latter being the major requirement.
2. The minimum residence requirement for the degree is two sessions (eight months), and the requirements for the degree must be completed within three calendar years.

Master of Architecture (MArch)

Admission and program requirements for the Master of Architecture degree program are outlined in the Architecture, Landscape and Design entry in the section titled Degree Programs by Graduate Unit.

Master of Arts (MA)

Admission Requirements

1. Students are admitted under the general regulations.
2. If the master's program is not a continuation of a course of study previously pursued as an undergraduate, or if there are deficiencies in meeting graduate unit admission requirements, prerequisite work may
be required and the minimum length of program may be extended.

**Program of Study**
1. Under the direction of one graduate unit, a student in this University shall pursue a program of advanced study approved by the graduate unit.
2. All requirements for the degree of MA must be satisfactorily completed within 5 years from first enrolment if the minimum period of full-time registration is up to 12 months and within 6 years from first enrolment if the minimum period of full-time registration is 16 to 24 months.

For specific admission and program requirements, please see the appropriate graduate unit entry. In advance, prospective students should consult the Coordinator of Graduate Studies of the appropriate graduate unit to ensure that the proper undergraduate courses are being taken in preparation for the master's program.

**Master of Biotechnology (MBiotech)**
Admission and program requirements for the Master of Biotechnology program are outlined in the Biotechnology entry in the section titled Joint Programs.

**Master of Business Administration (MBA)**
Admission and program requirements for the:
- Master of Business Administration
- Executive Master of Business Administration
- Global Executive Master of Business Administration
degree programs are outlined in the Management entry in the section titled Degree Programs by Graduate Unit.

**Master of Education (MEd)**
**Admission Requirements**
1. Students are admitted under the general regulations.
2. An appropriate four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, completed with standing equivalent to a University of Toronto mid-B or better in the final year. Under exceptional circumstances, for applicants with a three-year degree, equivalency may be demonstrated, for example, through relevant work experience or additional qualifications.
3. A year of professional education for teaching, or the equivalent in pedagogical content, is helpful.
4. At least one year of relevant, successful, professional experience.
   A student may be enrolled in one of the following graduate units:
   - Adult Education and Counselling Psychology
   - Curriculum, Teaching and Learning
   - Human Development and Applied Psychology
   - Sociology and Equity Studies in Education
   - Theory and Policy Studies in Education

**Program of Study**
The minimum program requirements for the MEd degree are as follows:
1. Under the direction of one graduate unit, a student undertakes one of four options to complete the program.
   - **Option I—Course Work Plus Comprehensive**
     5.0 full-course equivalents (FCE) plus a comprehensive examination/requirement.
   - **Option II—Research Project**
     4.0 full-course equivalents (FCE) plus a research project or a Major Research Paper.
   - **Option III—Thesis**
     3.0 full-course equivalents (FCE) plus a thesis.
   - **Option IV—Course Work Only**
     5.0 full-course equivalents (FCE).

The MEd degree program requires that a minimum of half of the courses must be taken in the home department unless otherwise specified by the department.

2. All requirements for the degree must be satisfactorily completed within six years of first enrolment.

**Master of Engineering (MEng)**
The MEng degree is intended primarily for those who wish to pursue advanced study at the master's level which is especially suited for professional practice.

**Admission Requirements**
1. Students are admitted under the general regulations.
2. Applicants shall hold the degree of Bachelor of Applied Science of this University or an equivalent degree in engineering. An applicant having a bachelor's degree in science or applied mathematics may be admitted as a student by the graduate unit concerned.

A student may be enrolled in one of the following graduate units:
- Aerospace Science and Engineering
- Chemical Engineering and Applied Chemistry
- Civil Engineering
- Electrical and Computer Engineering
- Materials Science and Engineering
- Mechanical and Industrial Engineering

**Program of Study**
1. Under the direction of one graduate unit, a student in this University shall pursue a program of study approved by the graduate unit. The program shall be equivalent in weight to full-time study for at least two sessions (eight months), and may include a project in addition to lecture and laboratory courses.
2. There is no general residence requirement for the degree. However, a period of residence may be required, depending on the individual student's pro-
gram and experience. This required period shall be as recommended by the graduate unit and approved by the School of Graduate Studies, but shall not exceed two sessions.
3. The degree program must be completed within six calendar years of registration.

Master of Engineering in Design and Manufacturing (MEngDM)
Admission and program requirements for the Master of Engineering in Design and Manufacturing program are outlined in the Advanced Design and Manufacturing entry in the section titled Joint Programs.

Master of Environmental Science (MEnvSc)
Admission and program requirements for the Master of Environmental Science degree program are outlined in the Environment entry in the section titled Degree Programs by Graduate Unit.

Master of Finance (MF)
Admission and program requirements for the Master of Finance degree program are outlined in the Management entry in the section titled Degree Programs by Graduate Unit.

Master of Financial Economics (MFE)
Admission and program requirements for the Master of Financial Economics program are outlined in the Financial Economics entry in the section titled Joint Programs.

Master of Forest Conservation (MFC)
Admission and program requirements for the Master of Forest Conservation degree program are outlined in the Forestry entry in the section titled Degree Programs by Graduate Unit.

Master of Global Affairs (MGA)
Admission and program requirements for the Master of Global Affairs degree program are outlined in the Global Affairs entry in the section titled Degree Programs by Graduate Unit.

Master of Health Informatics (MHI)
Admission and program requirements for the Master of Health Informatics degree program are outlined in the Health Policy, Management and Evaluation entry in the section titled Degree Programs by Graduate Unit.

Master of Health Science (MHSc)
The degree of Master of Health Science is offered in the following graduate units:
- Biomedical Engineering
- Health Policy, Management and Evaluation
- Medical Science
- Public Health Sciences
- Speech-Language Pathology
Since requirements for these programs differ, students should consult the individual graduate unit entry for details.

Master of Industrial Relations and Human Resources (MIRHR)
Admission and program requirements for the Master of Industrial Relations and Human Resources degree program are outlined in the Industrial Relations and Human Resources entry in the section titled Degree Programs by Graduate Unit.

Master of Information (MI)
Admission and program requirements for the Master of Information degree program are outlined in the Information entry in the section titled Degree Programs by Graduate Unit.

Master of Landscape Architecture (MLA)
Admission and program requirements for the Master of Landscape Architecture degree program are outlined in the Architecture, Landscape and Design entry in the section titled Degree Programs by Graduate Unit.

Master of Laws (LLM)
Admission and program requirements for the Master of Laws degree program are outlined in the Law entry in the section titled Degree Programs by Graduate Unit.

Master of Management and Professional Accounting (MMPA)
Admission and program requirements for the Master of Management in Professional Accounting degree program are outlined in the Professional Graduate Programs Centre (Mississauga) entry in the section titled Degree Programs by Graduate Unit.

Master of Management of Innovation (MMI)
Admission and program requirements for the Master of Management of Innovation degree program are outlined in the Health, Policy, Management and Evaluation
Master of Mathematical Finance (MMF)
Admission and program requirements for the Master of Mathematical Finance degree program are outlined in the Mathematical Finance entry in the section titled Degree Programs by Graduate Unit.

Master of Museum Studies (MMSt)
Admission and program requirements for the Master of Museum Studies degree program are outlined in the Information entry in the section titled Degree Programs by Graduate Unit.

Master of Music (MMus)
Admission and program requirements for the Master of Music degree program are outlined in the Music entry in the section titled Degree Programs by Graduate Unit.

Master of Public Policy (MPP)
Admission and program requirements for the Master of Public Policy degree program are outlined in the Public Policy entry in the section titled Degree Programs by Graduate Unit.

Master of Nursing (MN)
Admission and program requirements for the Master of Nursing degree program are outlined in the Nursing entry in the section titled Degree Programs by Graduate Unit.

Master of Science (MSc)
Admission Requirements
1. Students are admitted under the general regulations.
2. If the master's program is not a continuation of a course of study previously pursued as an undergraduate, or if there are deficiencies in meeting graduate unit admission requirements, prerequisite work may be required and the minimum length of program may be extended.

Program of Study
1. Under the direction of one graduate unit, a student in this University shall pursue a program of advanced study approved by the graduate unit.
2. All requirements for the degree of MSc must be satisfactorily completed within 5 years from first enrolment if the minimum period of full-time registration is up to 12 months and within 6 years from first enrolment if the minimum period of full-time registration is 16 to 24 months.

For specific admission and program requirements, please see the appropriate graduate unit entry. In advance, prospective students should consult the Coordinator of Graduate Studies of the appropriate graduate unit to ensure that the proper undergraduate courses are being taken in preparation for the master's program.

Master of Science in Biomedical Communications (MScBMC)
Admission and program requirements for the Master of Science in Biomedical Communications are outlined in the Medical Science entry in the section titled Degree Programs by Graduate Unit.

Master of Science in Community Health (MScCH)
Admission and program requirements for the Master of Science in Community Health degree program are outlined in the Public Health Sciences entry in the section titled Degree Programs by Graduate Unit.

Master of Science in Forestry (MScF)
Admission and program requirements for the Master of Science in Forestry degree program are outlined in the Forestry entry in the section titled Degree Programs by Graduate Unit.

Master of Science in Occupational Therapy (MScOT)
Admission and program requirements for the Master of Science in Occupational Therapy degree program are outlined in the Occupational Science and Occupational Therapy entry in the section titled Degree Programs by Graduate Unit.

Master of Science in Physical Therapy (MScPT)
Admission and program requirements for the Master of Science in Physical Therapy degree program are outlined in the Physical Therapy entry in the section titled Degree Programs by Graduate Unit.

Master of Science in Planning (MScPl)
Admission and program requirements for the Master of Science in Planning degree program are outlined in the Geography entry in the section titled Degree Programs by Graduate Unit.
Master of Social Work (MSW)
Admission and program requirements for the Master of Social Work degree program are outlined in the Social Work entry in the section titled Degree Programs by Graduate Unit.

Master of Studies in Law (MSL)
Admission and program requirements for the Master of Studies in Law degree program are outlined in the Law entry in the section titled Degree Programs by Graduate Unit.

Master of Urban Design (MUD)
Admission and program requirements for the Master of Urban Design degree program are outlined in the Architecture, Landscape and Design entry in the section titled Degree Programs by Graduate Unit.

Master of Urban Design Studies (MUDS)
Admission and program requirements for the Master of Urban Design Studies degree program are outlined in the Geography entry in the section titled Degree Programs by Graduate Unit.

Master of Visual Studies (MVS)
Admission and program requirements for the Master of Visual Studies degree program are outlined in the Art entry in the section titled Degree Programs by Graduate Unit.
Fees and Financial Support

Fees

Schedule of Fees
The annual Schedule of Fees, updated each year in June, is available at www.fees.utoronto.ca.

Fees and Registration
Students are informed of fees payable online through ROSI (Repository of Student Information). Payment of fees must be made through a Canadian bank, in Canadian funds, payable to the University of Toronto. Holders of certain scholarships, awards, research assistantships, teaching assistantships, or loans may make a fees arrangement request through their graduate unit. Students are considered to be registered as soon as they have paid academic and incidental fees or have a requested and approved fees arrangement in place. By virtue of being registered, a student thereby agrees to abide by all of the academic and non-academic policies, rules, and regulations of the University of Toronto, the School of Graduate Studies, and the graduate unit in which the student is registered.

Academic Fees Structure
Because the course of study in many graduate units is unstructured and often cannot be described in terms of a specific number of courses, and because graduate education more often than not results from the sum of experience encountered during the program, Graduate School fees are assessed on a program basis rather than on the number of courses taken. Degree Students and Special Students who pay the full-time fee for the previous Fall or Winter Session do not pay fees for the Summer Session. However, Part-time Special Students pay summer fees. In addition, part-time degree students who register for the Summer Session, but who have not registered in both sessions of the previous academic year, pay summer fees.

A degree program is defined on a sessional basis and the full fee is charged regardless of the number of courses taken. All students (except Special Students not proceeding to a degree) are accepted into a program with a minimum period of registration, specified on the offer of admission. This period establishes the minimum degree fee that must be paid before graduation.

In two graduate units: Management and Information, where there is no residence or full-time attendance required and the master's degree is achieved by coursework only, the length of program will be determined by the number of full-course equivalents (FCE) required to complete the degree requirements. For example, for the MBA degree in Management:

Up to 6.0 FCE is equivalent to a 1-year program.
6.5 to 8.5 FCE is equivalent to a 1½-year program.
9.0 to 12 FCE is equivalent to a 2-year program.
Full-Time Student Fee
The full-time student fee is charged to a full-time student for the minimum period of registration and all subsequent registrations.

Dual Registrations
Dual registrants will be required to maintain their registration for the master’s degree, register also for the PhD degree, and pay only the appropriate PhD fees.

Full-Time Students Commencing a Degree Program in January
Students commencing a degree program in January will pay half the appropriate fee for the year.

Summer Students
Students commencing a degree program in the summer and taking courses will pay the Summer Session fee. These fees are in addition to the annual fees which will be assessed in September.

Students commencing a degree program in September but who start research in the preceding summer do not pay fees for the Summer Session. Continuing Degree Students and Special Students who pay the full-time fee for the previous Fall or Winter Session do not pay fees for the Summer Session. However, part-time Special Students pay summer fees. In addition, part-time degree students who register for the Summer Session, but who have not registered in both sessions of the previous academic year, pay summer fees.

Students returning in the Summer Session from an approved leave (see Leave Policy) do not pay Summer Session fees.

Part-Time Degree Students
Students undertaking their studies on a part-time basis are required to pay the part-time academic and incidental fees each year they register to the completion of their program.

Special Students
Full-time Special Students pay the full academic fee per annum. Special Students enrolling on a part-time basis will pay for each course or half-course. Fees paid as a special student cannot be applied to any subsequent degree program.

Refund dates are different for part-time Special Students. For details check www.fees.utoronto.ca.

Fees for International Students
In accordance with the recommendations of the Ontario government, certain categories of international students are charged academic fees equal to those for Canadian citizens and Permanent Residents (landed immigrants).

If an international student’s status in Canada changes during a session, exemption from the higher fees may be granted. The fees will be adjusted in the current session, provided the status change occurs before November 1 in the Fall Session or before February 1 in the Winter Session. Status changes with supporting documents must be reported to the SGS Student Services Office prior to the above deadlines. However, if a status change effective before these dates is reported with a minor delay, fees adjustment may still be possible.

Incidental Fees
Compulsory incidental fees are charged for the Graduate Students’ Union, the Health Service, Hart House, the Athletic Centre, and other student services.

Minimum Payment (for other than those registering for only one session)
The first fee payment is due by the end of the September registration period and consists of 60% of the academic fee and 100% of incidental fees. The balance of the required fees may be paid at any time but is due by April 30 without further notice and is subject to monthly service charges.

Service Charges
All outstanding fees, regardless of the source of payment, are subject to a service charge of 1.5% per month compounded (19.56% per annum), first assessed on November 15 and on the 15th of every month thereafter until paid in full.

Late Registration
Any student registering after the deadline date specified in the academic calendar (sessional dates) is required to pay a late registration fee of $44.00 plus $5.00 for each day of delay to a maximum of $94.00.

Balance of Degree Fee
The length of the program, as defined by the graduate unit, into which a student is admitted predetermines the minimum total academic fee that a student must pay prior to graduation. Many part-time master’s students must pay a balance of degree fee prior to graduation.

Full-time students who accelerate their programs and finish the degree requirements in less time than the normal program length must pay a balance of degree fee. If a student has paid more than the full-time program fee due to the time taken to complete the degree requirements, there will be no refund of fees.

Fees for Graduating Master’s Students
Master’s students who are recommended for graduation by the deadline date for Fall Convocation will not be assessed fees for the Fall Session. Master’s students who miss this deadline but complete their degree requirements by January 29, 2010 are required to register for the Fall Session and pay the appropriate fees.
Fees and Financial Support

Fees for Final Year Doctoral Students
Academic fees for the final year will be prorated, based on a 12-month academic year, for the number of months that elapse between September and (including) the month in which the final thesis (including corrections required by the final oral examination committee) is submitted to the School of Graduate Studies. Fees for the final month will not be charged if the requirements are met before the 16th day of the month.

Reinstatement Fees
A reinstatement fee equivalent to the one session full-time fee is applied when a full-time student has been reinstated after the time limit for a period of 12 months. Part-time students who have been reinstated after the time limit pay part-time fees for the session(s) (one to three sessions) in which they register.

Outstanding Fees and Charges
See General Regulations for policy on academic sanctions for students who have outstanding University obligations.

Receipts for Income Tax
Tuition Fee Certificates are available online at www.rosi.utoronto.ca. There is a charge of $5.00 for the preparation of duplicate receipts.

Transcripts
A $10.00 fee is charged for each copy of a transcript of record. These fees are subject to change. Transcripts will not be issued for students whose fees are in arrears. Transcripts may be ordered from the University of Toronto Transcript Centre, 100 St. George Street, Toronto, Ontario M5S 3G3 or online at www.rosi.utoronto.ca.

Calendars
The entire calendar is accessible on the Web at www.sgs.utoronto.ca. Printed copies of the School of Graduate Studies Calendar may be purchased from the School at a cost of $5.00 each, plus any necessary postage charges. Details and order form are available at www.sgs.utoronto.ca/calendar/orderform.

Financial Support

Financial Aid
The University of Toronto gives high priority to the matter of graduate financial support. For many doctoral-stream students, programs commit to a minimum level of funding at the beginning of each year, for up to five years of study. For further information about the funding available from specific programs, see the Graduate Funding Structures document at www.sgs.utoronto.ca/information-for/students/awards.htm.

Although financial support cannot be guaranteed for all graduate students in all programs, we encourage you to inquire about financial assistance at your academic department or the Graduate Awards Office at the School of Graduate Studies.

Internal Awards
The School of Graduate Studies offers a number of internal awards to meritorious graduate students such as the University of Toronto Fellowships (UTF), the Connaught Scholarship as well as other endowed awards. For more information on internal awards visit www.sgs.utoronto.ca/information-for/students/awards.htm.

External Awards
Canadians and landed-immigrants may also apply for external support in the form of scholarships and fellowships offered by the Natural Sciences and Engineering Research Council of Canada (www.nserc.ca), the Social Sciences and Humanities Research Council of Canada (www.sshrc.ca) and the Canadian Institutes of Health Research (www.cihr.ca). All three granting councils (NSERC, SSHRC, and CIHR) also offer Canadian Graduate Scholarships (CGS) and Vanier Canada Graduate Scholarships. The Government of the Province of Ontario provides graduate scholarships tenable at Ontario universities. Ontario Graduate Scholarships (http://osap.gov.on.ca/eng/not_secure/Plan_Grants_full_sepapp_OGS_12345.htm) are available for graduate studies in all disciplines. Sixty of these awards are available to visa students. Ontario Graduate Scholarships in Science and Technology (OGSST) are designed to encourage excellence in graduate studies in science and technology; only available to Canadian citizens or permanent residents.

Ontario Student Assistance Program (OSAP)
The federal and provincial governments provide financial support to qualified students who are Canadian citizens or permanent residents of Ontario. The loan amount depends on your calculated financial need. Students can apply online at http://osap.gov.on.ca.

Awards for Non-Canadians
In addition to the internal funding normally available to all international students, a number of external funding sources can also be explored. For more information
Fees and Financial Support

on awards for non-Canadians, please visit www.sgs.utoronto.ca/informationfor/students/newcurrent/inter.htm. International students are encouraged to apply for all possible funding opportunities in their home country.

Canadian, landed immigrants, and international students are eligible for the Vanier Canada Graduate Scholarships. Please visit the tri-council Web sites for more information on specific awards.

The Government of the Province of Ontario provides graduate scholarships tenable at Ontario universities. Ontario Graduate Scholarships (http://osap.gov.on.ca/eng/not_secure/Plan_Grants_full_sepapp_OGS_12345.htm) are available for graduate studies in all disciplines. Sixty of these awards are available to visa students.

Other Funding Sources

Teaching Assistantships
Some graduate units hire teaching assistants who spend up to 10 hours a week conducting tutorials, grading undergraduate essays/exams, and acting as a resource for undergraduate students. For further information, write to the chair of your graduate unit, giving full particulars of your academic training and experience.

Research Assistantships
Research assistants normally work with a faculty member, assisting with research projects. Apply directly to the graduate unit chair concerned.

Financial Need

Emergency Grant Program
The Emergency Grant Program is designed to assist currently registered, full-time graduate students beyond their first year of studies who generally are not part of the funded cohort, and who encounter an unanticipated serious financial emergency. This is not considered to be a source of routine or long-term funding. For more information on the Emergency Grant Program, visit www.sgs.utoronto.ca/informationfor/students/awards/finances.htm.

Emergency Loan Program
The Emergency Loan Program is designed to alleviate temporary cash flow problems for students who are expecting to receive a payment in the near future. The maximum loan amount is $1,500 and is interest free until the mutually agreed upon repayment date. For more information on the Emergency Grant Program, visit www.sgs.utoronto.ca/informationfor/students/awards/finances.htm.

Financial Counselling
Financial counselling can relieve stress, resolve immediate financial problems, and help plan for the future. Financial Counsellors are trained to assist students in all aspects of financial management including budget planning and debt load management. Financial counselling sessions are confidential and available to graduate students free of charge. To schedule an appointment, contact the Graduate Awards Office by telephone (416) 946-0808 or by e-mail graduate.awards@utoronto.ca.

Further information on financial support
Visit
www.sgs.utoronto.ca/informationfor/students/awards.htm

Contact
Graduate Awards Office
School of Graduate Studies
University of Toronto
63 St. George Street, Room 202
Toronto, Canada M5S 2Z9
Telephone: (416) 978-2379
Fax: (416) 978-4367
E-mail: graduate.awards@utoronto.ca or gradschool@utoronto.ca
The University of Toronto offers a variety of student support and opportunities to its graduate students on all three campuses. Listed here is a sampling, grouped by category, of many of the commonly sought after organizations and services. Visit the online version of the SGS Calendar to link to current information and fuller details www.sgs.utoronto.ca/informationfor/cal2009-10/geninfo.htm or visit

www.students.utoronto.ca/U_of_T_Life.htm

www.sgs.utoronto.ca/informationfor/students/campus.htm

Academic Support and Professional Development
The University helps graduate students face the challenges of succeeding in their studies by offering services, staffed by experts, to support scholars in meeting the demands of advanced research. Development programs are also offered to prepare students for life following graduation.

- Academic Success Centre (ASC)
- Career Centre
- English Language and Writing Support (ELWS)
- Graduate Professional Skills (GPS) Program
- Research Ethics, Office of
- Research - Technology Transfer
- Resource Centre for Academic Technology (RCAT)
- Status of Women Mentoring Program
- Teaching Assistants’ Training Program (TATP)

Campus Life - Finding Community
Connecting with the university community beyond your department is part of a rewarding graduate school experience.

- Community Partnerships, Centre for
- Graduate Education Council (GEC)
- Governing Council (GC)
- Grad Escapes
- Grad Room
- Graduate Student Initiative (GSI)
- Graduate Students’ Union (GSU)
- Hart House Clubs, St. George
- University of Toronto at Mississauga Clubs
- University of Toronto at Scarborough Clubs

Equity and Diversity
As a university committed to human rights and equal opportunity, U of T offers a range of resources and services to foster an accessible and inclusive university experience, along with expert guidance in the event of harassment or discrimination.
Accessibility Services. St. George
Accessibility Services at UTM
Accessibility Services at UTSC
Anti-Racism and Cultural Diversity Office
Centre for Women and Trans People
First Nations House
Lesbian, Gay, Bisexual, Transgendered, Queer
Resources and Programs (LGBTQ)
Multi-Faith Centre, St. George
Sexual Harassment Office
Status of Women Office
St. George Women’s Centre
UTM Women’s Centre
UTSC Women’s Centre

International Students

International graduate students can benefit from services that help to negotiate the sometimes confusing process of living and studying in a foreign country.

Graduate Students’ Union (GSU)
International Student Centre (ISC), St. George
International Student Centre at UTSC
International Student Resources at UTM
International Student Exchange Office (ISXO)
International Student Identity Card (ISIC)
University Health Insurance Plan (UHIP)
Work and Study Abroad Office

Legal

U of T offers services that provide legal and procedural advice when the need arises.

Downtown Legal Services
Ombudsperson

Money Matters

Seek out U of T services to help you navigate the complex process of considering funding options and the benefits and responsibilities of each.

Graduate Awards Office
Graduate Students’ Union (GSU)
International Student Centre (ISC)

Recreation

There are plenty of opportunities to engage in sports and athletic programs within the university community or to simply work out on your own.

Athletic Centre, St. George
Centre for Physical Education at UTM
Graduate Students’ Union (GSU) Gym
Hart House
UTSC Athletics

Safety

Stay safe while living and studying on campus or as part of a student internship or exchange abroad.

Campus Police
Community Safety Office
Fire Prevention
Environmental Health and Safety
Ridesafer @ UTSC
Safety Abroad Program
St. George WALKsafer
UTM WALKsafer
UTSC Patrol

Family Care

Programs enable parents to spend time with their children and interact with other student families. As well, U of T has several licensed childcare centres that offer priority to U of T parents.

Child Care, St. George
Child Care, UTSC
Family Care Office
Family Resource Centre

Health and Wellness

Services and advice to ensure the health and well-being of graduate students.

Counselling and Psychological Services (CAPS)
Dentistry Patient Clinic
Graduate Students’ Union - Health and Dental
St. George Health Service
University Health Insurance Plan (UHIP)
UTM Health Service
UTSC Health and Wellness Centre

Housing

Student housing is available on all three U of T campuses. Limited family housing is available near the St. George Campus and at the University of Toronto Mississauga.

Grad House
Knox College
St. George Family Housing
Student Housing Service
Temporary and Emergency Housing
UTM Family and Graduate Housing
Wycliffe College
UTM Residence Centre
UTSC Student Housing and Residence Life
Graduate Faculty

There are three categories of graduate faculty. This section contains a single alphabetical listing of full members and members emeriti; the home department is listed. Associate members, which form the third category, are listed in the graduate unit entries in which they hold an appointment.

For more details about each faculty member’s appointment category, degrees, honours, and chairs held, consult the graduate unit entry. Information is also available on the SGS Web site (www.sgs.utoronto.ca).

Full Members and Members Emeriti

A
Aarabi, Parham - Electrical & Computer Engineering
Aarts, Michelle Marie - Cell & Systems Biology
Abbatt, Jonathan - Chemistry
Abdelhaleem, Mohamed - Laboratory Medicine & Pathobiology
Abdelmessih, Abdo - Mechanical & Industrial Engineering
Abdelrahman, Tarek - Electrical & Computer Engineering
Abduhlai, Baher - Civil Engineering
Abel, Sharon - Medical Science
Abouhaidar, Mounir - Cell & Systems Biology
Abraham, Roberto - Astronomy & Astrophysics
Abramovitch, Rona - Psychology
Abrams, Peter - Ecology & Evolutionary Biology
Abray, L Jane - History
Accinelli, Robert - History
Acker, Sandra - Sociology & Equity Studies in Education
Ackerman, Alan - English
Adamowski, Thomas - English
Adams, Barry - Civil Engineering
Adamson, Susan - Physiology
Adeli, Khosrow - Laboratory Medicine & Pathobiology
Adler, Emanuel - Political Science
Adve, Raviraj - Electrical & Computer Engineering
Aggarwal, Pankaj - Management
Aggarwal, Pankaj - Management
Agrawal, Aneil - Ecology & Evolutionary Biology
Aguirregabiria, Victor - Economics
Agur, Anne - Medical Science
Aide, William - Music
Ainslie, Donald - Philosophy
Aird, Paul - Forestry
Airhart, Phyllis - Religion
Aitchison, J. Stewart - Electrical & Computer Engineering
Altken, Johan - Curriculum, Teaching & Learning
Alvazian, Varouj - Economics
Akbart, Suzanne - English
Akdogu, Mustafa - Mathematics
Akeani, Virginia - Near & Middle Eastern Civilizations
Allagia, Ramona - Social Work
Alain, Claude - Psychology
Alderson-Smith, Gavin - Anthropology
Aleman, Dionne - Mechanical & Industrial Engineering
Alexander, Mary (Jacqui) - Women & Gender Studies
Alexopoulos, Michelle - Economics
Allard, Johane - Medical Science
Allen, Christine - Pharmaceutical Sciences
Allen, D Grant - Chemical Engineering & Applied Chemistry
Allen, Derek - Philosophy
Allen, Donald - Mechanical & Industrial Engineering
Allen, Patrick - Curriculum, Teaching & Learning
Allen, Peter - English
Allison, Kenneth - Public Health Sciences
Alman, Benjamin - Medical Science
Ambros, Veronika - Slavic
Amburagey, Terry - Management
Amernic, Joel - Management
Amon, Cristina - Mechanical & Industrial Engineering
Graduate Faculty

Amrhein, Carl - Geography
Amza, Cristiana - Electrical & Computer Engineering
Andersen, Robert - Sociology
Anderson, Adam - Psychology
Anderson, Christy - Art
Anderson, Geoff - Health Policy, Management & Evaluation
Anderson, Gerald - Nutritional Sciences
Anderson, Gordon - Economics
Anderson, Gregor - Geology
Anderson, James - Cell & Systems Biology
Anderson, Jason Helge - Electrical & Computer Engineering
Anderson, Michele - Immunology
Anderson, Nicole - Psychology
Anderson, Stephen - Theory & Policy Studies in Education
Andrade, Maydianne - Ecology & Evolutionary Biology
Andrew, Edward - Political Science
Andrews, Brenda Jean - Molecular Genetics
Andrews, David - Statistics
Andrews, Robert - Civil Engineering
Andrews, Susan - Civil Engineering
Andrulis, Irene - Molecular Genetics
Angel, Omer - Mathematics
Angers, Stephane - Pharmaceutical Sciences
Angus, Janet - Nursing Science
Antone, Eileen - Adult Education & Counselling Psychology
Anwar, Rashid - Biochemistry
Archer, Michael - Nutritional Sciences
Archontitsis, Georgios - Geography
Argyropoulos, Stavros - Materials Science & Engineering
Arkhipov, Sergey - Mathematics
Armatage, Kay - Drama
Armstrong, Lawrin - Medieval Studies
Arnold, Mary Louise - Human Development & Applied Psychology
Arntzen, Sonja - East Asian Studies
Arrowsmith, Cheryl - Medical Biophysics
Arthur, James - Mathematics
Artyomowicz, Pawel - Astronomy & Astrophysics
Asa, Sylvia - Laboratory Medicine & Pathobiology
Asals, Frederick - English
Ashgriz, Nasser - Mechanical & Industrial Engineering
Ashley, Mary Jane - Public Health Sciences
Aster, Sidney - History
Aston, Janet - Human Development & Applied Psychology
Aston, John - Drama
Attigiano, Liliana - Biochemistry
Aubert, Isabelle - Laboratory Medicine & Pathobiology
Aubin, Jane - Molecular Genetics
Audet, Julie - Biomedical Engineering
Aust, Karl - Materials Science & Engineering
Auster, Henry - English
Austin, Robert - European, Russian, & Eurasian Studies
Austin, Zubin - Pharmaceutical Sciences
Averbakh, Igor - Management
Averill, Gage - Music
Awad, George - Medical Science
Axelrad, Arthur - Medical Biophysics

B
Bacchus, Fahiem - Computer Science
Backx, Peter - Medical Science
Bader, Gary - Molecular Genetics
Badescu, Andrei - Statistics
Badgley, Robin - Public Health Sciences
Badley, Elizabeth - Public Health Sciences
Baeecker, Ronald - Computer Science
Bagby, Michael - Medical Science
Bagli, Darius - Medical Science
Bai, Ruoyun - Comparative Literature
Baigrie, Brian - History & Philosophy of Science & Technology
Bailey, David - Physics
Bailey, Richard - Physics
Baines, Andrew - Laboratory Medicine & Pathobiology
Baines, Cornelia - Public Health Sciences
Baines, William - Mechanical & Industrial Engineering
Baird, George - Architecture, Landscape, & Design
Baird, John - English
Baker, Allan - Ecology & Evolutionary Biology
Baker, Andrew - Medical Science
Baker, G. Ross - Health Policy, Management & Evaluation
Baker, Michael - Economics
Baker, Robert - Biochemistry
Baker, Robert - Ecology & Evolutionary Biology
Balakrishnan, Ravin - Computer Science
Balantinecz, John - Forestry
Balcioglu, Ahmet Baris - Mechanical & Industrial Engineering
Baldu, Bernd - Sociology
Balke, Stephen - Chemical Engineering & Applied Chemistry
Balmain, Keith - Electrical & Computer Engineering
Balot, Ryan - Political Science
Bamford, Sandra - Anthropology
Bancherli, Salvatore - Italian
Banning, Edward - Anthropology
Bapat, Bharati - Laboratory Medicine & Pathobiology
Barbaree, Howard - Medical Science
Barbeau, Edward - History & Philosophy of Science & Technology
Barber, Brian - Immunology
Barber, Dwayne - Medical Biophysics
Bardakjian, Berj - Electrical & Computer Engineering
Barentse, Morgan - Psychology
Barker, Joshua - Anthropology
Bar-Natan, Dror - Mathematics
Barnes, Christopher - Slavic
Barnes, Timothy - Classics
Barnett Foster, Debora E - Dentistry
Barney, Rachel - Classics
Barnsley, Janet M - Health Policy, Management & Evaluation
Barr, Cathy - Medical Science
Barrett, F Michael - Cell & Systems Biology
Barrett, Spencer - Ecology & Evolutionary Biology
Bartel, Lee - Music
Bartlett, Kenneth - History
Barton, Bruce - Drama
Baruchel, Sylvain - Medical Science
Barzda, Virginijus - Physics
Bascia, Nina - Theory & Policy Studies in Education
Bashevkin, Sylvia - Political Science
Basiliko, Nathan - Geography
Bassett, Anne - Medical Science
Bassili, John - Psychology
Bast, Darrin - Laboratory Medicine & Pathobiology
Batey, Robert Alexander - Chemistry
Bathelt, Harald - Political Science
Baum, Joel - Management
Bawden, William - Civil Engineering
Bazett-Jones, David - Biochemistry
Bazinet, Richard - Nutritional Sciences
Bazylak, Aimy - Mechanical & Industrial Engineering
Beach, David - Music
Bear, Christine - Physiology
Beaton, George - Nutritional Sciences
Beattie, John - Criminology
Beaulieu, Paul-Alain - Near & Middle Eastern Civilizations
Beck, Clive - Curriculum, Teaching & Learning
Beck, J. Christopher - Mechanical & Industrial Engineering
Beck, Roger - Classics
Becker, Andrew - Molecular Genetics
Bedford, Charles - Slavic
Beghtol, Clare - Information Studies
Begun, David - Anthropology
Beiner, Ronald - Political Science
Beilstein, Joseph - Public Health Sciences
Bejarano, Ana Maria - Political Science
Belik, Jacques - Medical Science
Bellamy, Donald - Social Work
Belsham, Denise - Physiology
Ben Amara, Foued - Mechanical & Industrial Engineering
Ben Madr, Ridha - Mechanical & Industrial Engineering
Benatar, Solomon - Public Health Sciences
Benchimol, Samuel - Medical Biophysics
Bencze, Lawrence - Curriculum, Teaching & Learning
Ben-David, Yaakov - Medical Biophysics
Bendayan, Reina - Pharmaceutical Sciences
Bender, Daniel Eric - History
Bennett, Barrie - Curriculum, Teaching & Learning
Bennick, Anders - Dentistry
Benson, Peter - Law
Bentley (Jr), Gerald - English
Bentz, Evan - Civil Engineering
Berndahl, Jennifer - Management
Berg, Katherine - Physical Therapy
Bergen, Doris - History
Berger, Carl - History
Berger, Stuart - Immunology
Bergeron, Catherine - Laboratory Medicine & Pathobiology
Bergquist, Bridget - Geology
Bernstein, Neil - Immunology
Berkovitz, Joseph - History & Philosophy of Science & Technology
Berleth, Thomas - Cell & Systems Biology
Berman, Oded - Management
Berman, William - History
Bernstein, Alan - Molecular Genetics
Bernstein, Steven - Political Science
Berry, R Albert - Economics
Bersohn, Malcolm - Political Science
Bertoldi, Nancy - Political Science
Bertrand, Jacques - Political Science
Bertrand-Jennings, Chantal - French
Bewell, Alan - English
Bhatt, Parth - French
Bhavnani, Bhagu - Medical Science
Bickmore, Kathy - Curriculum, Teaching & Learning
Biemiller (Jr), Andrew - Human Development & Applied Psychology
Bierman, Arlene - Nursing Science
Bierstone, Edward - Mathematics
Bigelow, Philip - Public Health Sciences
Binder, Ilia - Mathematics
Binnick, Robert - Linguistics
Bird, Richard - Management
Birkemoe, Peter - Civil Engineering
Birla, Ritu - History
Birn, Anne-Emanuelle - Public Health Sciences
Birnbaum, Eleazar - Near & Middle Eastern Civilizations
Bisztary, George - Slavic
Bjerkes, Matthew - Medical Biophysics
Black, Deborah - Philosophy
Black, Sandra - Medical Science
Blackmore, Josiah - Spanish
Blake, Ian - Electrical & Computer Engineering
Blake, Terence - Forestry
Blanchard, Peter - History
Blanchard, Ray - Medical Science
Bland, John - Mathematics
Blankstein, Kirk - Psychology
Blencowe, Benjamin - Molecular Genetics
Bliss, J Michael - History
Blomer, Valentin - Mathematics
Bloom, Thomas - Mathematics
Blute, Marion - Sociology
Bocking, Alan - Medical Science
Boddy, Janice - Anthropology
Bodemann, Michal - Sociology
Bogdan, Deanne - Theory & Policy Studies in Education
Bogert, Ralph - Slavic
Boggs, Joan - Laboratory Medicine & Pathobiology
Bognar, Andrew - Molecular Genetics
Bogo, Marion - Social Work
Bogoch, Earl - Medical Science
Bohaker, Heidi - History
Boland, Alana - Geography
Boler, Megan - Theory & Policy Studies in Education
Bollmann, Jorg - Geology
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<td>Byer, Philip</td>
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<td>Caidi, Nadia</td>
<td>Information Studies</td>
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<td>Public Health Sciences</td>
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<td>Cameron, David</td>
<td>Political Science</td>
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<td>Curriculum, Teaching &amp; Learning</td>
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<td>Campolieti, Michele</td>
<td>Industrial Relations &amp; Human</td>
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<td>Canti, John</td>
<td>Philosophy</td>
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<td>Caniggia, Isabella</td>
<td>Physiology</td>
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</tbody>
</table>

60 Full Members and Members Emeriti
Capozzi, Rocco - Italian
Carens, Joseph - Political Science
Carlb erg, Raymond - Astronomy & Astrophysics
Carlen, Peter - Physiology
Carleton, Terence - Ecology & Evolutionary Biology
Carleton, Terence - Forestry
Carley, James - Medieval Studies
Carlyle, James - Immunology
Carnahan, Heather - Occupational Science & Occupational Therapy
Caron, Jean-Bernard - Ecology & Evolutionary Biology
Carr, Jack - Economics
Carstens, Peter - Anthropology
Carswell, Anne - Occupational Science & Occupational Therapy
Carter, Michael - Mechanical & Industrial Engineering
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Elsholtz, Harry - Laboratory Medicine & Pathobiology
El-Sohemy, Ahmed - Nutritional Sciences
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Spino, Michael - Pharmaceutical Sciences
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Bachelor of Science in Health Policy, Management & Evaluation
Stukel, Therese - Health Policy, Management & Evaluation
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Graduate Programs

This section contains a listing of graduate programs offered by the School of Graduate Studies at the University of Toronto. It is divided into three categories, by program type:
1. Degree programs by graduate unit
2. Collaborative programs
3. Joint programs

SGS comprises over 80 graduate units, over 40 collaborative (interdisciplinary) programs, and several joint programs.

Within each program type, graduate units are listed alphabetically with a descriptive overview, contact information, a list of degree programs offered, together with admission and program requirements and courses. The calendar entry concludes with a list of graduate faculty appointed to the graduate unit.

For further details about a program, visit the graduate unit's Web site, listed in the contact information.
Degree Programs by Graduate Unit

A diverse range of both research-oriented and professional programs are offered at both the master's and doctoral levels.
Adult Education and Counselling Psychology

Faculty Affiliation
Ontario Institute for Studies in Education

Degree Programs Offered
Adult Education and Community Development – MA, MEd, PhD
Counselling Psychology - MA, MEd, EdD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aboriginal Health
   • Adult Education and Community Development, MA, PhD
   • Counselling Psychology, MA, PhD
2. Addiction Studies
   • Counselling Psychology, MA, PhD
3. Aging, Palliative and Supportive Care Across the Life Course
   • Adult Education and Community Development, MA, MEd, PhD
   • Counselling Psychology, MA, MEd, EdD, PhD
4. Community Development
   • Adult Education and Community Development, MA, MEd
   • Counselling Psychology, MA, MEd
5. Comparative, International and Development Education
   • Adult Education and Community Development, MA, MEd
6. Environmental Studies
   • Adult Education and Community Development, MA, MEd, PhD
   • Counselling Psychology, MA, MEd, EdD, PhD
7. Sexual Diversity Studies
   • Counselling Psychology, MA, MEd, EdD, PhD
8. Women and Gender Studies
   • Adult Education and Community Development, MA, MEd, PhD
9. Workplace Learning and Social Change
   • Adult Education and Community Development, MA, MEd, PhD

Overview
The Department of Adult Education and Counselling Psychology is the second largest of the five departments within the Ontario Institute for Studies in Education OISE and offers a full range of graduate degrees - Master of Arts, Master of Education, Doctor of Education, and Doctor of Philosophy - in each of two major programs:
1. Adult Education and Community Development
2. Counselling Psychology

The Adult Education and Community Development (AECD) program provides a place to study and contribute to theory, practice, and policy concerning adult learning in organizations, communities, workplaces, and social movements in local, national, and international contexts. We are an interdisciplinary program which highlights critical social analysis, transformative learning, creative inquiry, and international/global awareness. Perspectives represented in the program include: aboriginal/indigenous; anti-racist/anti-colonial; feminist; environmental/ecological; socialist/Marxist.

The Adult Education and Community Development program faculty are involved in research in the following areas:
1. Aboriginal/Indigenous Education
2. Workplace Learning and Change
3. Creative Inquiry, Personal and Professional Learning

The Counselling Psychology program is designed to provide critical and scholarly skills in counselling and counsellor education and to train counsellors and psychologists in the general domain of human services. The Counselling Psychology program offers three fields of specialization:
1. Counselling Psychology for Psychology Specialists (MA, PhD)
2. Counselling Psychology for Community Settings (MEd, EdD)
3. Guidance and Counselling for Schools (MEd)

Contact and Address
Admission
For application information and forms, visit the Registrar's Office Web site: www.ro.oise.utoronto.ca

E-mail: gradstudy@oise.utoronto.ca
Telephone: (416) 978-1682

The Ontario Institute for Studies in Education (OISE) University of Toronto Registrar's Office Graduate Studies, Admissions Unit Room 4-485, 252 Bloor Street West Toronto, Ontario M5S 1V6 Canada

Admission enquiries should be made well in advance of the regular deadline for receipt of applications. Given the limited number of students the Department may accept into the majority of its programs, not all eligible applicants will be admitted.
Program
Web: aecp.oise.utoronto.ca
Fax: (416) 926-4749

Department of Adult Education and Counselling Psychology
The Ontario Institute for Studies in Education (OISE)
University of Toronto
Seventh Floor, 252 Bloor Street West
Toronto, Ontario M5S 1V6
Canada

Degree Programs

Adult Education and Community Development

Master of Arts
The MA is a research-based degree and can be taken on a full-time or part-time basis. During their program of study, MA students are expected to have exposure to both qualitative and quantitative approaches to research.

Minimum Admission Requirements
• A four-year University of Toronto bachelor's degree in a relevant discipline or professional program with a grade of B+ or better in the final year, or its equivalent from a recognized university.

Program Requirements
• 4.0 full-course equivalents (FCE) plus a thesis based on original research.
• The program normally requires more than one year.
• Course work taken is mainly at the 1000 level, of which at least 2.0 FCE must be from the Adult Education and Community Development program. Additional courses may be required of some students. Students must take AEC 1100H Outline of Adult Education and AEC 1183H Master's Thesis Seminar. 0.5 FCE in research methods is required.
• MA students complete a thesis which may lay the groundwork for doctoral research.

Master of Education
The MEd is a non-thesis degree program which can be taken on either a full-time or part-time basis.

Minimum Admission Requirements
• A four-year University of Toronto bachelor's degree in a relevant discipline or professional program with a grade of mid-B or better in the final year, or its equivalent from a recognized university.

Program Requirements
• Normally 5.0 full-course equivalents (FCE), usually at the 1000 level. At least half of the courses must be from the Adult Education and Community Development program. Students are required to take course AEC 1100H Outline of Adult Education as well as one research methods course.

Doctor of Philosophy
The PhD degree program is designed to provide opportunities for advanced study in the theoretical foundations of adult education and community development and in the application of such knowledge to practice. The Adult Education and Community Development program offers both a full-time and flexible-time PhD. Full-time PhD students must complete their degree within six years; flexible-time PhD students must complete their degree within eight years.

Minimum Admission Requirements
• A University of Toronto MA in Education, or its equivalent from a recognized university, in the same field of specialization at the doctoral level.
• A standing equivalent to a University of Toronto B+ or better in master's courses.

Program Requirements
• Full-time and flexible time PhD students begin as a cohort. Except for the time to completion, requirements for both programs are the same.
• It is recommended that students take course AEC 3102H Doctoral Thesis Course in Adult Education in the first session of their program.
• All students must complete 3.0 full-course equivalents (FCE), of which at least 2.0 FCE must be from the Adult Education and Community Development program. Students with little background in the field of Adult Education and Community Development will be required to do an additional 0.5 FCE providing such background. A minimum of 2.0 FCE must be at the doctoral/3000 level, normally including course AEC 3102H. Students also normally take at least 0.5 FCE specialized research methods course.
• All students are expected to complete a comprehensive requirement and a thesis.

Course List
Not all courses are given each year. Please consult the course schedules available from the Registrar's Office.

AEC 1100H Outline of Adult Education
AEC 1101H Program Planning in Adult Education
AEC 1102H Community Development: Innovative Models
AEC 1103H Introduction to Research Methods in Adult Education
AEC 1104H Community Education and Organizing
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC 1107H</td>
<td>Developing and Leading High Performing Teams: Theory and Practice</td>
</tr>
<tr>
<td>AEC 1108H</td>
<td>Adult Learning (Credit/No Credit)</td>
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<tr>
<td>AEC 1110H</td>
<td>Basic Processes in Teaching Adults</td>
</tr>
<tr>
<td>AEC 1113H</td>
<td>Gender and Hierarchy at Work</td>
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<tr>
<td>AEC 1114H</td>
<td>Comparative and International Perspectives in Adult Education</td>
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<tr>
<td>AEC 1117H</td>
<td>Consulting Skills for Adult Educators</td>
</tr>
<tr>
<td>AEC 1119H</td>
<td>Creating a Learning Organization</td>
</tr>
<tr>
<td>AEC 1122H</td>
<td>Practicum in Adult Education and Community Development (Credit/No Credit)</td>
</tr>
<tr>
<td>AEC 1131H</td>
<td>Special Topics in Adult Education (Master's)</td>
</tr>
<tr>
<td>AEC 1135H</td>
<td>Practicum in Organization Development (Credit/No Credit)</td>
</tr>
<tr>
<td>AEC 1141H</td>
<td>Organizations and the Adult Educator: Historical and Theoretical Perspectives on Organization Development</td>
</tr>
<tr>
<td>AEC 1143H</td>
<td>Introduction to Feminist Perspectives on Society and Education</td>
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<tr>
<td>AEC 1145H</td>
<td>Participatory Research in the Community and the Workplace</td>
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<tr>
<td>AEC 1146H</td>
<td>Women, War, and Learning</td>
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<tr>
<td>AEC 1148H</td>
<td>An Introduction to Workplace, Organizational, and Economic Democracy</td>
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<tr>
<td>AEC 1150H</td>
<td>Critical Perspectives on Organizational Theory, Development and Practice</td>
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<tr>
<td>AEC 1152H</td>
<td>Individual Reading and Research in Adult Education: Master's Level</td>
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<tr>
<td>AEC 1156H</td>
<td>Power and Difference in the Workplace</td>
</tr>
<tr>
<td>AEC 1160H</td>
<td>Introduction to Transformative Learning Studies</td>
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<tr>
<td>AEC 1170H</td>
<td>Practitioners' Experienced Knowledge</td>
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<tr>
<td>AEC 1171H</td>
<td>Treaty Rights and Aboriginal Education: Contemporary Policies and Programs</td>
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<tr>
<td>AEC 1173H</td>
<td>Creativity and Wellness: Learning to Thrive</td>
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<tr>
<td>AEC 1178H</td>
<td>Practitioner/Ecological Identity and Reflexive Inquiry</td>
</tr>
<tr>
<td>AEC 1180H</td>
<td>Aboriginal World Views: Implications for Education</td>
</tr>
<tr>
<td>AEC 1181H</td>
<td>Embodied Learning and Qi Gong</td>
</tr>
<tr>
<td>AEC 1182H</td>
<td>Teaching, Learning and Working in Non-profit and Public Sector Organizations</td>
</tr>
<tr>
<td>AEC 1183H</td>
<td>Master's Thesis Seminar (Credit/No Credit)</td>
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<tr>
<td>AEC 1184H</td>
<td>Aboriginal Knowledge: Implications for Education</td>
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<tr>
<td>AEC 1185H</td>
<td>Leadership in Organizations: Changing Perspectives</td>
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<tr>
<td>AEC 1186H</td>
<td>Perspectives On Organizational Change</td>
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<tr>
<td>AEC 1187H</td>
<td>Alternative Ways of Researching Aging, Illness and Health</td>
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<td>AEC 1188H</td>
<td>Understanding Research Traditions</td>
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<tr>
<td>AEC 1189H</td>
<td>Workplace Literacies: Theory, Policy and Practice</td>
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<tr>
<td>AEC 3102H</td>
<td>Doctoral Thesis Course in Adult Education (Credit/No Credit)</td>
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<tr>
<td>AEC 3103H</td>
<td>Teaching about Global and Social Issues</td>
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<tr>
<td>AEC 3104H</td>
<td>Political Economy of Adult Education in Global Perspectives</td>
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<tr>
<td>AEC 3113H</td>
<td>Adult Education and Public Policy</td>
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<tr>
<td>AEC 3119H</td>
<td>Global Perspectives on Feminist Education, Community Development, and Community Transformation</td>
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<tr>
<td>AEC 3126H</td>
<td>Transformative Education and the Global Community: Creativity and Social Change</td>
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<tr>
<td>AEC 3131H</td>
<td>Special Topics in Adult Education (Doctoral)</td>
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<tr>
<td>AEC 3132H</td>
<td>Special Topics in Women in Development and Community Transformation</td>
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<tr>
<td>AEC 3133H</td>
<td>Special Topics in Aboriginal Community Learning: Current Issues and Practices</td>
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<tr>
<td>AEC 3138H</td>
<td>Social Theories and Adult Education</td>
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<tr>
<td>AEC 3140H</td>
<td>Post-Colonial Relations and Transformative Education</td>
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<tr>
<td>AEC 3152H</td>
<td>Individual Reading and Research in Adult Education: Doctoral Level</td>
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<tr>
<td>AEC 3170H</td>
<td>Perspectives on Qualitative Research: Part I</td>
</tr>
<tr>
<td>AEC 3171H</td>
<td>Perspectives on Qualitative Research: Part II</td>
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<tr>
<td>AEC 3173H</td>
<td>Effecting Change: Creating Wellness</td>
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<tr>
<td>AEC 3176H</td>
<td>Sense of Place in Professional and Natural Contexts</td>
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<tr>
<td>AEC 3177H</td>
<td>Arts-InforMED Perspectives in Educational Research</td>
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<tr>
<td>AEC 3179H</td>
<td>Work, Technology and the Knowledge Economy</td>
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<tr>
<td>AEC 3180H</td>
<td>Global Governance and Educational Change: the Politics of International Cooperation in Education</td>
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<tr>
<td>AEC 3181H</td>
<td>Feminist Standpoints: Critical and Post-Structural Approaches</td>
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<tr>
<td>AEC 3182H</td>
<td>Citizenship Learning and Participatory Democracy</td>
</tr>
<tr>
<td>AEC 3183H</td>
<td>Mapping Social and Organizational Relations in Adult Education</td>
</tr>
<tr>
<td>CIE 1001H</td>
<td>Introduction to Comparative, International and Development Education</td>
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<tr>
<td>CIE 1002H</td>
<td>Practicum in Comparative, International and Development Education</td>
</tr>
<tr>
<td>WPL 1131H</td>
<td>Workplace Learning and Social Change – Master's</td>
</tr>
</tbody>
</table>

**Interprogram Courses**

The following courses are accepted for credit in the Adult Education program and will satisfy that program's specialization requirement. For descriptions, see the relevant programs.

- AEC 1400H Special Topics in Adult Education and Counselling Psychology
- AEC 1405H Introduction to Qualitative Research: Part I
- AEC 1406H Introduction to Qualitative Research: Part II
- AEC 1408H Working with Survivors of Trauma
- AEC 1409H Creative Empowerment Work with the Disenfranchised
- SES 1925H Indigenous Knowledge and Decolonization: Pedagogical Implications

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*+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.*
Degree Programs by Graduate Unit

SES 2942H  Education and Work
SES 2970H  Countering Myths about Aboriginal Peoples through Multiple Medias
SES 3951H  Canadian Political Economy and Education

Counselling Psychology

Field: Counselling Psychology for Psychology Specialists

Master of Arts
This MA program is designed for applicants interested in working as researchers or practitioners in a variety of psychological and educational settings. The program meets the basic academic and clinical requirements for registration with the College of Psychologists of Ontario as a Psychological Associate. It also meets the needs of students who plan to apply to the PhD program in Counselling Psychology for Psychology Specialists.

Minimum Admission Requirements
- A four-year University of Toronto bachelor’s degree in psychology or any four-year undergraduate degree which would contain the psychology requirement equivalent (defined as 6.0 full-course equivalents (FCE) in psychology, including 0.5 FCE in research methods, 0.5 FCE in statistics and at least 3.0 FCE at the third- and fourth-year level).
- A standing equivalent to a University of Toronto A- better in the final year.

Program Requirements
- The MA in Counselling Psychology for Psychology Specialists consists of 4.0 full-course equivalents (FCE)
- 500 hours of practicum
- A master’s thesis
- Every program of study includes courses in counselling theory, practice, assessment, ethics, personality and cognitive assessment skills, and research methodology, as well as a practicum placement.
- Full-time on-campus study is required from September to April, which represents the Fall and Winter Sessions; however, students may begin their program of study in the preceding Summer Session. Normally, 1.5 FCE are taken in each of the Fall and Winter Sessions and a maximum of 1.0 FCE in the Summer Session.
- It is expected that all degree requirements will be completed within two years.

Doctor of Philosophy
The principal emphasis of this degree program is the development of research and theoretical knowledge in counselling psychology, assessment skills, and knowledge and training in professional issues. Students are expected to conduct advanced research and to develop professional knowledge and skills in counselling psychology. Graduates will be prepared to assume a variety of positions in psychological practice and research in schools and universities, in community settings, in agencies offering psychological services, and in university or college counselling centres. The program of study must be taken on a full-time basis and progress in the program will be reviewed annually.

Please note that the Counselling Program is currently adjusting course requirements to conform to the guidelines and principles for the Canadian Psychological Association accreditation of programs in professional psychology.

Minimum Admission Requirements
- Students may be admitted to the PhD program via one of two routes:
  o from a bachelor’s degree: a four-year University of Toronto bachelor’s degree in psychology or any four-year undergraduate degree which would contain the psychology requirement equivalent (defined as 6.0 FCE in psychology, including 0.5 FCE in research methods, 0.5 FCE in statistics, and at least 3.0 FCE at the third- and fourth-year level). A standing equivalent to a University of Toronto A- better in the final year.
  o from a master’s degree: a University of Toronto M.A. degree with specialization in Counselling Psychology for Psychology Specialists with a grade of A- or better, or its equivalent.

Program Requirements
- The PhD program requires a minimum of 4.0 full-course equivalents (FCE) (including practicum AEC 3217Y and internship AEC 3268Y).
- Practicum. Complete a 500-hour practicum in conjunction with the doctoral practicum course AEC 3217Y
- Internship (AEC 3268Y). 2,000 hours of internship. All internship arrangements must be made in consultation with the Coordinator of Internship and Counselling Services.
- Comprehensive examination. In addition to normal course requirements, students will be examined systematically in general psychology and in professional psychology. The examination will normally be taken at the end of the second year of full-time study.
- Doctoral dissertation. All students must develop, complete, and defend in an oral examination, a doctoral dissertation supervised by a full-time member of the Counselling Psychology faculty. The content of such dissertation research may address theoretical issues applicable to 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 counselling psychology.
Field: Counselling Psychology for Community Settings

Master of Education

This degree program provides individuals with the opportunity to learn and develop counselling skills appropriate for a variety of work settings. Students are encouraged to develop their courses and practicum learning experiences to suit their own goals. Examples of the types of goals for which suitable programs of study could be developed are adult counselling, college and university counselling centres, career counselling, geriatrics counselling, multicultural counselling, and community mental health and family life centres. The program of study provides students with the basic preparation for certification as a Certified Canadian Counsellor (CCC) with the Canadian Counselling Association (CCA).

Minimum Admission Requirements

- A four-year University of Toronto bachelor's degree-of any background or discipline—with a grade of B+ or better in the final year, or its equivalent from a recognized university.
- At least one year of relevant experience.

Program Requirements

- The MEd in Counselling Psychology for Community and Educational Settings requires 5.0 full-course equivalents (FCE) plus a comprehensive examination.
- The 3.0 FCE required in Counselling Psychology include courses in counselling, group theory, ethics, and a practicum.
- Arrangements regarding a practicum placement must be made in consultation with the Coordinator of Internship and Counselling Services. MEd students can also pursue research in the area of Work and Career which is offered jointly by the Counselling Psychology program and the Adult Education and Community Development program.

Doctor of Education

Counsellor training in this degree program emphasizes the role of the counsellor in the educational system, the acquisition of effective supervisory and consultative skills, and the development and assessment of student counselling services in addition to the advanced study of counselling theory and practice. Graduates will be prepared to take leadership positions in the field of educational counselling; 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 personnel; and as providers of advanced levels of personal counselling to school, college, and related populations.

This option will be especially attractive to individuals who have demonstrated a career commitment to the provision of counselling services in an educational and community setting.

Minimum Admission Requirements

- Students may be admitted to the PhD program via one of two routes:
  - from a bachelor's degree: A four-year University of Toronto bachelor's degree--of any background or discipline--or its equivalent from a recognized university
  - from a master's degree: An MA or MEd degree in Counselling 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 as a counsellor in an educational setting or in a related position. Applicants who hold an MEd or other non-thesis master's degree must submit evidence of their ability to identify a research or development problem, to design and conduct a study or project, and to report the findings or results, all in a rigorous manner. This constitutes a Qualifying Research Paper (QRP).

Program Requirements

- All students are required to take courses related to the development of competence in counselling theory and practice and to the development of research skills.
- The EdD program requires a minimum of 4.0 full-course equivalents (FCE) (including practicum and internship) and a doctoral dissertation.
- 3.0 of the 4.0 FCE must be in Counselling Psychology.
- Each student must complete a minimum of one year of full-time, on-campus study.
- Practicum. Complete a 500-hour practicum in conjunction with the doctoral practicum course AEC 3217Y.
- Internship (AEC 3270H). Complete 500 hours of internship. All internship arrangements must be made in consultation with the Coordinator of Internship and Counselling Services.
- Thesis. All students must develop, complete, and defend in an oral examination, a doctoral dissertation. The content of such dissertation research may address theoretical issues applicable to 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 counselling psychology.

Field: Guidance and Counselling for Schools

Master of Education

This degree program helps meet the need for well-prepared practitioners in the field of guidance and counselling in the schools. Therefore, strong preference for admission to this degree program 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 Association (CCA). Students completing this MEd program may have their degree credited toward Parts I and II of the Ontario College of Teachers’ (OCT) Specialist Certificate in Guidance. Students may pursue the MEd degree on a full-time or part-time basis.

Minimum Admission Requirements
- An appropriate four-year University of Toronto bachelor’s degree with a grade of B+ or better in the final year, or its equivalent from a recognized university.
- Teacher certification.

Program Requirements
- 5.0 full-course equivalents (FCE) plus a comprehensive examination.
- The program of study, planned by the student in consultation with the faculty advisor, cannot be reduced because of guidance certificates held. Within the 3.0 FCE required in Counselling Psychology, every program of study must include counselling and group theory and a practicum experience.

Course List
Not all courses are given each year. Please consult the course schedules available from the Registrar’s Office.

AEC 1202H Theories and Techniques of Counselling
AEC 1203Y Practicum in Counselling
AEC 1207Y Counselling Topics in Sexual Orientation and Gender Identity Diversity
AEC 1214H Critical Multicultural Practice: Diversity Issues in Counselling
AEC 1219H Ethical Issues in Professional Practice in Psychology
AEC 1228H Individual and Group Psychotherapy: Family and Marital Counselling
AEC 1229H Individual and Group Psychotherapy for Counselling
AEC 1245H Brief Counselling Strategies
AEC 1247H Practicum in Adult Counselling
AEC 1252H Individual Reading and Research in Counselling Psychology: Master’s Level
AEC 1253H Feminist Issues in Counselling Psychology and Psychotherapy
AEC 1261H Group Work in Counselling
AEC 1262H Educational and Psychological Testing for Counselling
AEC 1263H Seminar in Research Methods for MA Students
AEC 1266H Career Counselling and Development: Transition from School to Work
AEC 1267Y Advanced Practicum in Counselling
AEC 1268H Career Counselling and Development: Transitions in Adulthood
AEC 1269H Use of Guided Imagery in Counselling and Psychotherapy
AEC 1275H Special Topics in Counselling Psychology (Master’s)
AEC 1278H Cognitive Therapy
AEC 1289H Community Mental Health
AEC 3211H Counselling and Researching in Context: Critical Perspectives on Counselling and Health Promotion Research
AEC 3215H Seminar in Counselling Psychology: Part I
AEC 3216H Seminar in Counselling Psychology: Part II
AEC 3217Y Practicum in Counselling Psychology
AEC 3218H Research Seminar in Counselling
AEC 3224H Individual Cognitive and Personality Assessment
AEC 3225H Assessment and Diagnosis of Personality and Psychopathology
AEC 3253H Individual Reading and Research in Counselling Psychology: Doctoral Level
AEC 3260H Psychopathology and Diagnosis
AEC 3267H Training for Counselling Supervision
AEC 3268Y PhD Internship
AEC 3269H Research Seminar in Critical Multicultural Counselling and Psychotherapy
AEC 3270H EdD Internship

Interprogram Courses
The following courses are accepted for credit in the Counselling Psychology program and will satisfy that program’s specialization requirements. For descriptions, see the relevant programs.

AEC 1173H Creativity and Wellness: Learning to Thrive
AEC 3173H Effecting Change: Creating Wellness
AEC 1400H Special Topics in Adult Education and Counselling Psychology
AEC 1405H Introduction to Qualitative Research: Part I
AEC 1406H Introduction to Qualitative Research: Part II
AEC 1408H Working with Survivors of Trauma
AEC 1409H Creative Empowerment Work with the Disenfranchised
HDP 1223H Depression in the Schools: Assessment, Prevention, and Intervention
HDP 3204H Contemporary History and Systems in Human Development and Applied Psychology

Graduate Faculty

Full Members
Antone, Eileen - AB, BE, MEd, EdD
Burstow, Bonnie - BA, MEd, MA, PhD
Chen, Charles - BA, MEd, MA, PhD
Cole, Ardra - BA, BEd, MEd, EdD
Gillis, Joseph - BSc, MA, PhD
Guttman, Mary Alice - BEd, MSc, PhD

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Degree Programs by Graduate Unit

Jackson, Nancy - BA, MA, PhD
Knowles, J Gary - MS, EdD
Laiken, Marilyn - BA, MA, PhD (Chair & Graduate Chair)
Miles, Angela - BA, MA, PhD
Mirchandani, Kiran - BA, MPH, PhD
Mojab, Shahrzad - BA, MEd, EdD
Moodley, Roy - BA, MA, PhD
Mundy, Karen - AB, MA, PhD
Ng, Roxana - BA, MA, PhD
Piran, Niva - BA, PhD (Associate Chair)
Quarter, Jack - PhD
Schneider, Margaret - BA, MA, PhD
Schugurensky, Daniel - BEd, MEd, EdD
Stermac, Lana - BSc, MA, PhD
Volpe, Richard - BA, MA, PhD
Watson, Jeanne - PhD

Members Emeriti
Gamlin, Peter - BA, MA, PhD
Miezitis, Solveiga - BA, MA, PhD
Sullivan, Edmund - MA, PhD

Associate Members
Akingbola, Olakunle - BSc, MIR, MA, PhD
Archer, Anne - DIPP
Armstrong, Ann - MBA, PhD
Bernstein, Lori - BA, MA, MPH, PhD
Blanchard, Ray - MA, PhD
Bodnar, Ana - DBA
Church, Kathryn - PhD
Connelly, Christine - BA, BEd, MEd, EdD
Courbasson, Christine - PhD
Goldstein, Abby - BA, MA, PhD
Jasper, Karin - BA, MA
Josefowitz, Nina - BA, MSc, PhD
Kwan, Kenneth - MEd
Langton, Calvin - PhD
Minsky, Sam - BSc, MA
Restoule, Jean-Paul - BA, MA, DPhil
Silver, Judith - BSc, PhD
Stewart, Suzanne - BA, MA
Stuckless, Noreen - PhD
Toner, Brenda - BA, MA, PhD
Aerospace Science and Engineering

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Aerospace Science and Engineering - MASc, MEng, PhD

Overview
UTIAS offers graduate programs leading to research intensive MASc and PhD degrees and a professionally oriented MEng degree. Faculty research areas include aircraft flight systems and control, flight simulation, computational fluid dynamics, combustion and propulsion, aerodynamic shape optimization, experimental fluid dynamics, flow control, structural mechanics, advanced composite materials, multidisciplinary optimization of aircraft, multifunctional systems, spacecraft dynamics and control, autonomous space robotics, microsatellites, space mechatronics, plasma-materials interactions, and materials for fusion reactors. Details of entrance regulations and courses of study are given in the calendar of the School of Graduate Studies and on the Web site www.utias.utoronto.ca.

Contact and Address:
Web: www.utias.utoronto.ca
Telephone: (416) 667-7714
Fax: (416) 667-7743

Graduate Department of Aerospace Science and Engineering
University of Toronto
Room 169, 4925 Dufferin Street
Toronto, Ontario M3H 5T6
Canada

Degree Programs
Aerospace Science and Engineering

Master of Engineering

Minimum Admission Requirements
• Applicants holding a University of Toronto Bachelor of Applied Science degree, or an equivalent four-year degree in engineering, are considered for admission under SGS general regulations.

Program Requirements
• Under the guidance of the graduate coordinator or a staff supervisor, a student selects a program of study that consists of at least 10 half-courses (5.0 full-course equivalents (FCE)). Individual programs will be arranged to make up for background deficiency. The program may be pursued on a full-time or part-time basis. On a full-time basis, completion is possible in three sessions. All students must complete the program within six calendar years.

Master of Applied Science

Minimum Admission Requirements
• Admitted under the SGS general regulations. Qualified graduates in engineering, mathematics, physics, or chemistry are encouraged to apply. Individual programs are arranged to make up for background deficiencies.

Program Requirements
• Minimum of 2.5 FCE of which 0.5 must be AER 1800H Research Seminar in Aerospace Science and Engineering. All required courses must be completed during the first year of the program.
• A thesis based on research or development, selected in consultation with the student’s supervisor.
• Research performance is assessed by a Research Assessment Committee (RAC), which includes the student’s supervisor.
• MASc students are anticipated to complete their degree requirements in 18 months.
• Students interested in pursuing a PhD degree, who have achieved excellent performance in an MASc program at UTIAS, are encouraged to transfer directly into a PhD program, under the same supervisor, at the end of their first year of MASc studies. Approval for transfer is based on the student’s research ability, research progress during the first year, and academic standing. Students transferring from an MASc to a PhD program shall be referred to as ‘transfer students’.

Doctor of Philosophy

Minimum Admission Requirements
• MASc degree in engineering, mathematics, physics, or chemistry and demonstrated ability to perform advanced research. Applicants with a bachelor’s degree who wish to pursue PhD studies at UTIAS will initially be admitted into the MASc program and will be considered for direct transfer into the PhD program.

Program Requirements
• Full-time continuous registration for every session, including the summer session, until all degree requirements are completed. PhD students starting with an
MASc or MEng degree must spend a minimum of two years in the program. Transfer students spend a minimum of three years in the program from the date of registration in the MASc program.

- Following acceptance into a PhD program, the student shall undertake a program of study under the guidance of a Doctoral Examination Committee (DEC) which includes the student's supervisor.
- Course work and a thesis which must be based on research conducted while registered for the PhD program. PhD students starting with an MASc or MEng degree require 2.0 FCE. Transfer students need 1.0 FCE in addition to the 2.5 FCE completed prior to the MASc to PhD transfer for a total of 3.5 FCE. All courses must be completed during the first two years in the PhD program.
- A student with a master's degree in a discipline appropriate to the field of PhD study is anticipated to complete the PhD program on a full-time basis in less than four years. The anticipated period for transfer students is less than five years from the date of registration in the MASc program. The DEC plays an important role in assisting students to meet this goal. The functions of the DEC are to:
  o Ascertain the suitability of the student for advanced research,
  o Assess the thesis topic,
  o Conduct formal reviews of the student's progress at least once a year (unsatisfactory progress may result in the termination of the student's candidacy), and
  o Provide first assessment of the completed thesis.
- Program Milestones:
  1. The first DEC meeting is held within six months of Ph.D. program start (or date of transfer for transfer students); the aim is to identify the topic and scope of the thesis.
  2. The second DEC meeting (approximately 1.5 years after PhD start) is the Qualifying Examination, which determines whether the student should continue in the program or whether his or her candidacy should be terminated.
  3. Subsequent DEC meetings are held at least once a year.
- Upon thesis completion, the student presents the thesis at a Departmental Doctoral Seminar before defending it at the Final Oral Examination as prescribed under the SGS degree regulations in this calendar.
- Prior to convocation, PhD students must prepare at least one formal manuscript, based on the thesis, for publication in refereed journals or refereed conference proceedings.

**Course List**

This list represents course offerings at the time of publication. Course descriptions are available on the UTIAS website.

**Aircraft Flight Systems**
- AER 0503H Aeroelasticity
- AER 1202H Advanced Flight Dynamics
- AER 1211H Human Control of Flight Systems
- AER 1214H Airplane Dynamics (Flight Laboratory)
- AER 1215H Aerodynamics and Flight Mechanics of Rotorcraft
- AER 1220H Remotely Piloted Flight Vehicles

**Aerodynamics, Fluid Dynamics and Propulsion**
- AER 0510H Aerospace Propulsion
- AER 1301H Kinetic Theory of Gases
- AER 1302H Viscous Flows and Boundary Layers
- AER 1304H Fundamentals of Combustion
- AER 1306H Special Topics in Reacting Flows
- AER 1310H Turbulence Modelling
- AER 1311H Unsteady Gasdynamics
- AER 1312H High Temperature Compressible Flows
- AER 1314H Dynamics of Dusty Gases (reading course)
- AER 1316H Fundamentals of Computational Fluid Dynamics
- AER 1318H Topics in Computational Fluid Dynamics
- AER 1319H Finite Volume Methods for Computational Fluid Dynamics
- AER 1320H Air-breathing Propulsion

**Structures and Multidisciplinary Optimization**
- AER 0501H Advanced Mechanics of Structures
- AER 1401H Introduction to Composite Materials
- AER 1402H The Finite Element Method and Applications
- AER 1411H Theory of Composite Materials
- AER 1415H Optimization Concepts and Applications

**Space Systems Engineering**
- AER 0506H Spacecraft Dynamics and Control I
- AER 0525H Robotics
- AER 1503H Spacecraft Dynamics and Control II
- AER 1512H Multibody Dynamics
- AER 1513H State Estimation for Aerospace Vehicles
- AER 1515H Intelligent Robotics
- AER 1520H Microsatellite Design I
- AER 1521H Microsatellite Design II

**Engineering Physics**
- AER 1705H Plasma Physics and Fusion Energy
- AER 1706H Fusion Reactor Systems
- AER 1716H Fusion Reactor Materials (reading course)
- AER 1717H Applied Plasma Physics I (reading course)
- AER 1720H Applied Plasma Physics II (reading course)
- AER 1730H Protection of Materials and Structures from Space Environmental Effects

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**Aerospace Science and Engineering** 95
Research Seminars and Professional Courses

AER 1800H Research Seminar in Aerospace Science and Engineering (for first-year MASc students only)

AER 1810H MEng Project (for MEng students only)

JDE 1000H 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.)

Graduate Faculty

Full Members

Damaren, Christopher - BASc, MASc, DPhil
D'Eleuterio, Gabriele - BASc, MASc, PhD
Ekmekci, Alis - BS, MS, PhD
Emami, M. Reza - BSc, MSc, PhD
Gottlieb, James - BSc, MSc, PhD
Grant, Peter - BASc, MASc, PhD
Groth, Clinton - BASc, MASc, DPhil
Guider, Omer - BSc, MSc, PhD
Haasz, Anthony - BASc, MASc, PhD
Hansen, Jorn - BASc, MASc, PhD
Lavoie, Philippe - BSc, MSc, PhD
Liu, Hugh - BSc, MASc, PhD (Interim Associate Director & Graduate Coordinator)
Martins, Joaquim - MEng, MSINAE, PhD
Sislian, Jean - MSc, PhD, PhD
Stangeby, Peter - BSc, MSc, PhD
Steeves, Craig - BA, BASc, PhD
Zee, Robert - BASc, MASc, PhD
Zingg, David - BASc, MASc, PhD (Director)

Members Emeriti

de Leeuw, Jacob - MS, PhD
DeLaurier, James - BS, MS, PhD
Hughes, Peter - BASc, MASc, PhD
Reid, Lloyd - BASc, MASc, PhD
Sullivan, Philip - DIC, BEng, MEng, PhD
Tennyson, Roderick - BASc, MASc, PhD

Associate Members

Davis, James - BASc, MASc, PhD
Kleiman, Jacob - BS, MS, PhD, PhD
Anthropology

Faculty Affiliation
Arts and Science

Degree Programs Offered
Anthropology - MA, MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aboriginal Health
   • Anthropology, MA, MSc, PhD
2. Addiction Studies
   • Anthropology, MA, MSc, PhD
3. Aging, Palliative and Supportive Care Across the Life Course
   • Anthropology, MA, MSc, PhD
4. Asia-Pacific Studies
   • Anthropology, MA
5. Dynamics of Global Change
   • Anthropology, PhD
6. Environmental Studies
   • Anthropology, MA, MSc, PhD
7. Ethnic and Pluralism Studies
   • Anthropology, MA, MSc, PhD
8. Global Health
   • Anthropology, PhD
9. International Relations
   • Anthropology, MA
10. Jewish Studies
    • Anthropology, MA, PhD
11. Sexual Diversity Studies
    • Anthropology, MA, MSc, PhD
12. South Asian Studies
    • Anthropology, MA, PhD
13. Women and Gender Studies
    • Anthropology, MA, PhD
14. Women's Health
    • Anthropology, MA, MSc, PhD

Overview
The Department of Anthropology offers research training and courses of instruction in five fields:
1. archaeology
2. biological anthropology
3. linguistic and semiotic anthropology
4. medical anthropology
5. socio-cultural anthropology

The Department offers a Master of Arts degree program in all five fields.

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.

Contact and Address
Web: www.anthropology.utoronto.ca
E-mail: anthropology.graduate@utoronto.ca
Telephone: (416) 978-5416
Fax: (416) 978-3217

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

Degree Programs
Anthropology

Master of Arts
Minimum Admission Requirements
• Applicants admitted under the general regulations of the School of Graduate Studies.
• 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
• Four full-course equivalents (FCE) which must include ANT 1000H and ANT 2000Y.
• Program normally extends over a 12-month period lasting from September to September. The MA program may also be taken on a part-time basis.

Master of Science
Minimum Admission Requirements
• Applicants admitted under the general regulations of the School of Graduate Studies.
• 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).
Degree Programs by Graduate Unit

Program Requirements

- Five full-course equivalents which must include ANT 1000H and ANT 2500Y. Of the remaining 3.5 full-course equivalents, 1.5 will normally be science courses in archaeology, biological anthropology, medical anthropology, or related disciplines depending on the student's program.
- The MSc is a two-year program that is normally completed by the summer of the second year. The MSc program may also be taken on a part-time basis.

Doctor of Philosophy

Minimum Admission Requirements

- Applicants are admitted under the general regulations of the School of Graduate Studies.
- Admission is offered primarily to excellent students who, by the time of enrollment, 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 encouraged 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 exceptionally strong backgrounds (i.e., with a cumulative GPA of 3.85 or above) and who have earned the equivalent of a four-year bachelor's degree with a concentration in anthropology may apply for direct entry to the PhD program.

Program Requirements

All PhD Students

- Before proceeding to full-time research, students must:
  - 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.
- 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.
- Depending on subfield or area of research, completion of the PhD may take longer than the indicated program length below. See Departmental Handbook for details.

Entry with a Master's Degree

- Minimum of 3.0 full-course equivalents (FCE).
- Attain at least an A- average in course work to continue in the PhD program in good standing.
- Submit research proposals by the end of the third session of the second year (e.g., August 31 for students who start in September).
- If admitted to the PhD program from a MA or MSc degree program, students are entering a four-year PhD program.

Direct Entry Students (entry with a bachelor’s degree)

- 5.0 full graduate course equivalents (FCE), of which 3.0 FCE will normally be taken in the first year. The remaining 2.0 FCE can be taken in the second year, 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 third session of the third year (e.g., August 31 for students who start in September).
- If admitted to the PhD program from a BA or BSc degree program, students are entering a five-year PhD program.

Course List

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

General

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 1000H</td>
<td>Anthropology: Theoretical Paradigms and Case Studies (Credit/No Credit)</td>
</tr>
<tr>
<td>ANT 1099H</td>
<td>Quantitative Methods II</td>
</tr>
<tr>
<td>ANT 1155H,Y</td>
<td>Research (or reading seminar)</td>
</tr>
<tr>
<td>ANT 1156H,Y</td>
<td>Research (or reading seminar)</td>
</tr>
<tr>
<td>ANT 1157H,Y</td>
<td>Research (or reading seminar)</td>
</tr>
<tr>
<td>ANT 1158H,Y</td>
<td>Research (or reading seminar)</td>
</tr>
<tr>
<td>ANT 2000Y</td>
<td>MA Research Paper</td>
</tr>
</tbody>
</table>

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Degree Programs by Graduate Unit

Anthropology

ANT 2500Y* MSc Research Paper
JAC 1001H Media, Mind, and Society
JTH 3000H Coordinating Seminar in Ethnic and Pluralism Studies (for students in the Ethnic and Pluralism Studies Collaborative Program)

Archaeology

JPA 1040Y Advanced Physics and Archaeology
ANT 4020H Archaeology Theory
ANT 4022H Culture Resource Management
ANT 4025H Archaeology of Eastern North America
ANT 4026H Arctic Archaeology
ANT 4029H Lithic Technology
ANT 4035H Far Eastern Culture History
ANT 4038H Archaeology of Urban Development
ANT 4039H Origin and Nature of Food Producing Societies
ANT 4040H Archaeology of Hunter-Gatherers
ANT 4041H Landscape Archaeology
ANT 4042H Archaeology of Complex Hunter-Gatherers
ANT 4043H Archaeology of Ritual, Religion, and Ideology
ANT 4044H Intercultural interaction in the Ancient World
ANT 4045H Mortuary Archaeology
ANT 4050H Zooarchaeology
ANT 4060H Specific Problems: Old World
ANT 4065H Specific Problems: New World
ANT 4066H Household Archaeology
ANT 4067H Historical, Industrial, and Ethnographic Archaeology: the Science of Documented Societies
ANT 4068H Archaeology of Technology

Biological Anthropology

ANT 3005H Advanced Topics in Paleoanthropology
ANT 3010H Human Osteology: Theory and Practice
ANT 3022H New Techniques for Biological Anthropology
ANT 3031H, Y Advanced Research Seminar I
ANT 3034H, Y Advanced Research Seminar IV
ANT 3041H Evolutionary Perspectives on Growth and Development
ANT 3042H Advanced Topics in Primate Ecology
ANT 3043H Comparative Methods in Biological Anthropology
ANT 3044H Current Topics in Primate Social Behaviour
ANT 3439H Advanced Seminar in Forensic Anthropology
ANT 3440H Molecular Anthropology: Theory and Practice

Linguistic Anthropology

JAL 1155H Language and Gender
ANT 5141H Critical Issues in Linguistic Anthropology
ANT 5142H Language in Anthropological Thought
ANT 5143Y Areal Studies in Linguistic Anthropology: Africa, East Asia, North America, Oceania
ANT 5143H Critical Issues in Linguistic Anthropology
ANT 5144H Foundations in Linguistic Anthropology
ANT 5145H Classic Texts in Cultural Studies
ANT 5146H Colonial and Postcolonial Discourses
ANT 5162H Ethnography of Communication
JSA 5147H Language, Nationalism and Post-Nationalism

Medical Anthropology

ANT 7001H Medical Anthropology I
ANT 7002H Medical Anthropology II

Social and Cultural

ANT 6003H Critical Issues in Ethnography I
ANT 6004H Critical Issues in Ethnography II
ANT 6011H Anthropology of the Modern State
ANT 6012H Metamorphosis of Citizenship
ANT 6013H Language and Publics in the Ethnography of Speaking
ANT 6014H Textuality and Technologies of Ethnography
ANT 6015H Global Health: Anthropological Perspectives
ANT 6020H The Political Economy of Global/Local Dialectics
ANT 6022H Symbolic Anthropology: Structuralism, Hermeneutics, and Poststructuralism
ANT 6023H Governmentality, Development and the Improvement of the World
ANT 6024H Contemporary Trends in Anthropological Theory
ANT 6025H Anthropology and Epistemology
ANT 6026H Anthropology of Identity and Subject Formation
ANT 6027H Anthropology of Violence
ANT 6028H Emerging Themes in Anthropology
ANT 6029H Anthropology of Capitalism
ANT 6030H Anthropology and the Ethical Imagination
ANT 6031H, Y Advanced Research Seminar I
ANT 6033H, Y Advanced Research Seminar III
ANT 6034H, Y Advanced Research Seminar IV
ANT 6037H, Y Advanced Research Seminar VII
ANT 6038H, Y Advanced Research Seminar VIII
ANT 6040H Approaches to Fieldwork I
ANT 6041H Approaches to Fieldwork II
EAS 1603H Anthropology of South Korea
JAR 6053H Aboriginal Religion in Comparative Experience

* Courses which may continue over a program. The course is graded when completed.
+ Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Graduate Faculty

**Full Members**
- Alderson-Smith, Gavin - BA, MA, DPhil
- Bamford, Sandra - BA, MA, MPA, SCD
- Banning, Edward - BA, MA, PhD
- Barker, Joshua - BA, MA, PhD
- Begun, David - PhD
- Boddy, Janice - BA, MA, PhD (Chair & Graduate Chair)
- Chazan, Michael - BA, BA, MA, PhD
- Cody, Francis - PhD
- Coupland, Gary - BA, MA, PhD
- Crawford, Gary - BSc, MA, PhD
- Cunningham, Hilary - PhD
- Danesi, Marcel - BA, MA, PhD
- Daswani, Girish - BA, BSc, MS, PhD
- Del, George JS - BA, MA, PhD
- Evison, Martin Paul - PhD
- Friesen, T Max - BA, MA, PhD
- Gillison, Gillian - BA, PhD
- Heller, Monica - BA, MA, PhD
- Kalmar, Ivan - BA, MA, PhD, PhD
- Lambek, Michael - BA, MA, PhD
- Latta, Martha - BA, MA, DPhil
- Lehman, Shawn - PhD
- Levin, Michael - BA, MA, PhD
- Li, Tania - BA, PhD
- Luong, Hy Van - BA, PhD
- McElhinny, Bonnie - PhD
- Miller, Heather - BA, MA, SM, PhD (Coordinator of Graduate Studies)
- Muhlebach, Andrea - PhD
- Napolitano, Valentina - BSc, PhD
- Parra, Esteban - BSc, MS, PhD
- Pfeiffer, Susan - AB, AM, PhD
- Rogers, Tracy - AB, MPA, DPhil
- Sanders, Todd - AB, AM, MSc, PhD
- Satsuma, Shiko - BA, BA, MA, PhD
- Sawchuk, Lawrence - BA, MA, PhD
- Schillaci, Michael - BA, MA, PhD
- Sellen, Daniel - BA, AM, PhD
- Sidnell, Jack - BA, MA, PhD
- Sieciechowicz, Krystyna - BA, MA, PhD
- Sigmon, Becky - BA, MS, PhD
- Smith, David - AB, MA, PhD
- Song, Je Sook - BA, PhD
- Swenson, Edward - BA, MA, PhD
- Turner, David - BA, PhD
- Wardlow, Holly - BA, PhD

**Members Emeriti**
- Burton, Frances - BSc, MA, PhD
- Carstens, Peter - BA, PhD
- Drewitt, Robert - BA, PhD
- Kleindienst, Maxine - BA, MA, PhD
- Lee, Richard - BA, MA, PhD
- Mavalwala, Jamshed D - MS, PhD
- Nagata, Shuichi - BS, MA, PhD
- Philpott, Stuart - BA, MA, PhD
- Ray, Ajit - BSc, MSc, PhD
- Rogers, Henry - BA, MA, PhD
- Samarain, William - BA, PhD
- Shirley, Robert - BA, MA, PhD
- Vanderburgh, Rosamond - BA, MA

**Associate Members**
- Cummings, Maggie Irene - BA, MA
- Dave, Prakruti - BA, MA, PhD
- Forni, Silvia - BA, MA, PhD
- Gilbert, Andrew - PhD
- Glencross, Bonnie - BSc, MA, PhD
- Jackson, Jennifer - BA, MPH, PhD
- Jennings, Justin - PhD
- Klassen, Pamela - BA, MA, PhD
- Parga, Joyce - BSc, MA, PhD
- Shen, Chen - BA, PhD
- Sung, Wen Ching - MA, MS, PhD
Architecture, Landscape, and Design

Faculty Affiliation
Architecture, Landscape, and Design

Degree Programs Offered
Architecture - MArch
Landscape Architecture - MLA
Urban Design - MUD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Knowledge Media Design
   • Architecture, MArch
   • Landscape Architecture, MLA
   • Urban Design, MUD

Overview
The Faculty of Architecture, Landscape, and Design offers three graduate programs.

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.

The Master of Landscape Architecture (MLA) is a professional program which focuses on urban landscape architecture, design, and theory within a challenging studio-based curriculum. Integrated courses in history, technology, and the environment, as well as options for free electives, provide a comprehensive professional landscape architecture education.

The Master of Urban Design (MUD) is a post-professional program which 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 the post-metropolis, 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.

Contact and Address:
Web: www.daniels.utoronto.ca
E-mail: enquiry@daniels.utoronto.ca
Telephone: (416) 978-5038
Fax: (416) 971-2094

John H. Daniels Faculty of Architecture, Landscape, and Design
University of Toronto
230 College Street
Toronto, Ontario M5T 1R2
Canada

Degree Programs

Architecture

Master of Architecture

Minimum Admission Requirements

3.5-year program
- Four-year bachelor's degree (BA, BSc, BASc) with a final year grade point average of at least mid-B, and showing leadership potential in the field.
- Required: courses in secondary calculus, secondary physics, and university architectural history (0.5 full-course equivalent).
- Recommended: preparation in the visual arts, such as drawing, sculpture, graphics, photography, film, or new media, as well as computing and advanced writing skills.

Second Year Advanced Standing Option in MArch – 2.5-year program
- Four-year non-professional bachelor's degree in architectural studies, environmental design, or comparable degree focusing on the built environment.
- 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. Each MArch applicant with a suitable undergraduate degree will be evaluated for this option during the admissions process.
- Required: minimum previous completion of three design studio courses, two courses in visual communications or representation, two courses in architecture history and theory (one in twentieth-century), and two courses in architectural technology and ecology.
Post-Professional Advanced Standing Option in MArch – 1.5-year program

- 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 professional degree from a recognized university.
- Students enter the third-year of the MArch program.
- The Post-Professional Advanced Standing Option does not grant a professionally accredited degree.

General Program Requirements

- The course of study is rigorous and comprehensive, preparing 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. A B- grade in two design studio courses or a B- grade 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 language requirement other than proficiency in English. Writing support is integrated into the program in order to develop specialized skills in writing which are essential to effective learning and communication in the design fields.

Specific Program Requirements

3.5-year program

- Students must take a total of 17.5 full-course equivalents (FCE) as follows:
  - 10.0 FCE core courses
    - 2.0 FCE design studios
    - 2.0 FCE option design studios
    - 0.5 FCE thesis preparation and research course
    - 1.5 FCE design thesis
    - 0.5 FCE computer modelling course
    - 2.5 FCE technics and planning courses
    - 1.0 FCE professional practice course
    - 2.5 FCE elective courses of which 1.0 FCE must be in the History and Theory stream
  - 4.0 FCE core courses
  - 2.0 FCE option design studios
  - 0.5 FCE thesis preparation and research course
  - 1.5 FCE design or research thesis
  - 3.0 FCE elective courses

- The program is normally completed in 7 sessions (3.5 years) of full-time study; the time limit to complete degree requirements is 6 years.

Second Year Advanced Standing Option – 2.5-year program

- Students must take a total of 12.5 full-course equivalents (FCE) as follows:
  - 4.5 FCE core courses
  - 2.0 FCE option design studios
  - 0.5 FCE proseminar course
  - 0.5 FCE thesis preparation and research course
  - 1.5 FCE design or research thesis
  - 3.0 FCE elective courses

- The program is completed in 3 sessions (1.5 years) of full-time study, the maximum time limit to complete degree requirements is 4 years.

Course List

Core Courses

Design
ARC 1011Y Architectural Design Studio 1: Design
ARC 1012Y Architectural Design Studio 2: Site, Building, Tectonics
ARC 2013Y Architectural Design Studio 3: Culture and the Metropolis
ARC 2014Y Architectural Design Studio 4: Comprehensive Building Project
ARC 3015Y Architectural Design Studio 5: Option Studios
ARC 3016Y Architectural Design Studio 6: Option Studios
ARC 3017H Thesis Research and Preparation
ARC 4018Y Architectural Design Studio 7: Thesis

Computer Modelling
ARC 2023H Intermediate Computer Applications in Architecture

Visual Communication
ARC 1021H Visual Communication 1
ARC 1022H Visual Communication 2
History and Theory
- ARC 1031H Historical Perspectives on Topics in Architecture 1
- ARC 1032H Historical Perspectives on Topics in Architecture 2

Technics and Planning
- ARC 1041H Architecture in its Technological-Ecological Context
- ARC 1042H Site Engineering and Ecology
- ARC 2043H Building Science, Materials and Construction 1
- ARC 2044H Structures 1
- ARC 2045H Building Science, Materials and Construction 2
- ARC 2046H Structures 2
- ARC 2047H Environmental Systems

Proseminar
- ALA 3031H Proseminar

Professional Practice
- ARC 3052Y Professional Practice

Elective Courses
Not all elective courses are offered every year. Please check the timetable available from the program office in August.

Design
- ARC 1013H Graphic Design
- ARC 1014H Furniture Design
- ARC 1016H Selected Topics in Industrial Design
- ARC 2015H Global Architecture: Urban Analysis and Documentation

Computer Modelling
- ARC 3024H Advanced Computer Applications in Architecture

History and Theory
- ARC 1033H Architecture, Media and Communications
- ARC 1034H Architecture, Philosophy, Art
- ARC 1035H Toronto Architecture and Urban Form
- ARC 1037H Topics in Architecture and Cultural Difference
- ARC 2031H (Re)Constructing Domesticity: Ideas and Techniques of Construction in Mid-Century North American Houses

Second Year Advanced Standing Option in MLA – 2-year program
- Four-year or five-year bachelor's degree in architecture, architectural studies, environmental design, or comparable degree focusing on the design of 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 MLA admissions committee. Each applicant with a suitable undergraduate degree will be evaluated for this option during the admissions process.
- Required: minimum previous completion of three design studio courses, two courses in visual communications or representation, two courses in architectural history and theory (one in twentieth-century), and two courses in architectural technology and/or ecology.

Post-Professional Advanced Standing Option in MLA – 1-year program
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 from a recognized university.
- Students enter the third-year of the MLA program.
- The Post-Professional Advanced Standing Option does not grant a professionally accredited degree.
General Program Requirements

- Students study full-time, taking all required courses in each given session. A B- grade in two design studio courses or a B- grade 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 language requirement other than proficiency in English. Writing support is integrated into the program in order to develop specialized skills in writing which are essential to effective learning and communication in the design fields.

Specific Program Requirements

3-year program

- Students must take a total of 15.5 full-course equivalents (FCE) as follows:
  - 14.0 FCE in core courses
    - 4.0 FCE design studios
    - 1.0 FCE option design studio
    - 0.5 FCE thesis preparation and research course
    - 1.5 FCE design thesis
    - 0.5 FCE environment field courses
    - 1.5 FCE history theory courses
    - 1.5 FCE visual communication courses
    - 0.5 FCE computation course
    - 1.5 FCE technology courses
    - 1.0 FCE environment courses
    - 0.5 FCE professional practice course
  - 4.0 FCE design studios
  - 1.0 FCE option design studio
  - 0.5 FCE thesis preparation and research course
  - 1.5 FCE design thesis
  - 0.5 FCE computation course
  - 0.5 FCE technology course
  - 0.5 FCE professional practice course

- The program is normally completed in 6 sessions (3 years) of full-time study; the maximum time limit to complete degree requirements is 6 years.

2-year program - Second Year Advanced Standing Option in MLA

- Students must take a total of 10.5 full-course equivalents (FCE) as follows:
  - 10.5 FCE in core courses
    - 5.0 FCE design studios
    - 1.0 FCE option design studio
    - 0.5 FCE thesis preparation and research course
    - 2.0 FCE design studios
    - 0.5 FCE environment field courses
    - 1.5 FCE history theory courses
    - 1.5 FCE visual communication courses
    - 0.5 FCE computation course
    - 1.0 FCE technology courses
    - 1.0 FCE environment courses
    - 0.5 FCE professional practice course
  - 1.0 FCE option design studio
  - 0.5 FCE proseminar course
  - 0.5 FCE thesis preparation and research course
  - 1.5 FCE design thesis
  - 0.5 FCE computation course
  - 0.5 FCE technology course
  - 0.5 FCE professional practice course

- The program normally is completed in 4 sessions (2 years) of full-time study; the maximum time limit to complete degree requirements is 5 years.

1-year program - Post-Professional Advanced Standing Option in MLA

- Students must take a total of 5.0 full-course equivalents (FCE) as follows:
  - 5.0 FCE in core courses
    - 1.0 FCE option design studio
    - 0.5 FCE proseminar course
    - 0.5 FCE thesis preparation and research course
    - 1.5 FCE design thesis
    - 0.5 FCE computation course
    - 0.5 FCE technology course
    - 0.5 FCE professional practice course

- The program normally is completed in 2 sessions (1 year) of full-time study; the maximum time limit to complete degree requirements is 4 years.

Course List

Core Courses

Design
LAN 1011Y Design Studio 1
LAN 1012Y Design Studio 2
LAN 2013Y Design Studio 3
LAN 3015H Thesis Research and Preparation
LAN 3016Y Design Studio Options
LAN 3017Y Design Studio Thesis

Computation
LAN 3025H Advanced Computation in Landscape Architecture

Visual Communication
LAN 1021H Visual Communication 1
LAN 1022H Visual Communication 2
LAN 2023H Intermediate Digital Visual Communications in Landscape

History and Theory
LAN 1031H History Theory Criticism 1
LAN 1032H History Theory Criticism 2
LAN 2018H Contemporary Issues in Urban Landscape Design

Technology
LAN 1045H Site Engineering and Ecology
LAN 2042H Urban Site Technologies 1
LAN 3045H Urban Site Technologies 2

Environment
LAN 1041H Urban Plant Ecosystems 1 (field course)
LAN 1043H Urban Plant Ecosystems 2 (field course)
LAN 2043H Integrated Ecological Studies
LAN 2044H Urban Environmental Systems

Proseminar
ALA 3031H Proseminar
### Professional Practice
LAN 3051H Professional Practice

### Elective Courses
Not all elective courses are offered every year. Please check the timetable available from the program office in August.

#### Design
- **LAN 1033H** Urban Landscape Architecture and Community
- **LAN 2033H** Landscape and Urban Form
- **LAN 2035H** Landscape Design Research Methods

#### Computation
- **LAN 2034H** Landscape Architecture and Digital Communications

#### History and Theory
- **LAN 1036H** The Historic Basis for the Contemporary Use of Plants in Landscape Design
- **LAN 2036H** Topics in Landscape History and Theory
- **LAN 2038H** Landscape Conservation and Restoration
- **LAN 2039H** Independent Study in Landscape Architecture
- **LAN 3031H** Mass-Urbanization in the Twenty-First Century

#### Environment
- **LAN 2037H** Selected Topics in Landscape Architecture, Technology and Ecology

### Urban Design

### Master of Urban Design

#### Minimum Admission Requirements
2-year program
- 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 their studies included a design specialization or if they have professional design experience.
- All applicants must submit a portfolio of design work for review. Applicants with a planning background may also satisfy the design requirement by taking a preliminary make-up year in design in the Faculty of Architecture, Landscape, and Design.

#### General Program Requirements
- Students study full-time, taking all required courses in each given session. A B- grade in two design studio courses or a B- grade in any three courses will normally result in a recommendation to the School of Graduate Studies to terminate the student’s candidacy for the degree program.
- There is no language requirement other than proficiency in English. Writing support is integrated into the program in order to develop specialized skills in writing which are essential to effective learning and communication in the design fields.

#### Specific Program Requirements
- Students must take a total of 10.0 full-course equivalents (FCE) as follows:
  - 7.0 FCE in core courses
    - 1.0 FCE design studio
    - 2.0 FCE option design studio
    - 0.5 FCE thesis preparation and research course
    - 1.5 FCE design thesis
    - 0.5 FCE history, theory, criticism course
    - 1.5 FCE other courses
  - 3.0 FCE in electives of which 1.0 FCE must be selected from offerings in the History, Theory, and Criticism category.
- The program normally is completed in 4 sessions (2 years) of full-time study; the maximum time limit to complete degree requirements is 5 years.

### Course List

#### Core Courses
- **URD 1011Y** Urban Design Studio
- **URD 1012Y** Urban Design Studio Options
- **URD 2012Y** Independent Studio in Urban Design (may be undertaken in lieu of an option studio)
- **URD 2014H** Thesis Research and Preparation
- **URD 2013Y** Urban Design Studio Options
- **URD 2015Y** Urban Design Studio Thesis

#### History, Theory, Criticism
- **URD 1031H** Urban History, Theory, Criticism

#### Other
- **URD 1021H** Urban Design Computation
- **URD 1044H** Urban Design and Development
- **URD 2014H** Thesis Research and Preparation
- **URD 2041H** Business and Land Use Planning in Real Estate Development

#### Elective Courses
Not all elective courses are offered every year. Please check the timetable available from the program office in August.

- **URD 1032H** Urban Design in the History of the Post-Industrial World
- **URD 1033H** Urban Design Culture and Media
- **URD 1035H** Selected Topics in Urban Design
Other
URD 1022H  Topics in Computer-Aided Urban Design
URD 1042H  Urban Design and Environmental Systems
URD 1043H  Independent Study in Urban Design

Graduate Faculty

Full Members
Baird, George - BArch
El-Khoury, Rodolphe - BFA, BArch, BArch, MArch, MA, PhD
Richards, Larry - BArch, MArch
Sommer, Richard - BFA, BArch, MArch (Dean)

Members Emeriti
van Ginkel, Blanche - BArch, MCP

Associate Members
Belanger, Pierre - BLA, MLA
Bessai, Tom - BArch, AB, MArch
Blackwell, Adrian - BArch, BES, MArch UD
Bowick, David - BEng
Carter, David - AB, MArch, AM
Chaouni, Aziza - BSCCE, MArch
Comay, Rebecca - BA, MA, PhD
Danahy, John - BLA, MRP
Fife, Edward - BArch, MLA
Fong, Steven - BArch, MArch
Hess, Paul - BA, MA, PhD
Hutton, Jane - BS, MLA
Jones, Andrew - BArch, MA
Kesik, Ted - BSc, MArch, DPhil
Levit, Robert - BA, MArch
Lieberman, David - DiplIngARCH, BFA
Liu, An Te - BA, MArch
Lobsinger, Mary Lou - BArch, BES, BA, MES, PhD
Marcopoulos, Christos - BArch
Moukheiber, Carol Leila - BArch, BA
Nash, Diarmuid - BES, MArch
North, Alissa - BLA, MLA
North, Peter - BLA, MLA
Payne, Andrew - BA, MA, PhD
Petricone, Pina - MArch
Roche, James - BA, MLA
Sampson, Barry - BArch
Shelley, Elise - BSc, MArch, MLA
Shim, Brigitte - BES, BAR
Shnier, John - BArch, BES
Sugden, Kevin - BSc, BES, BArch
Waldheim, Charles - MArch
White, Mason - BArch, MArch
Williamson, Shane Robert - BSc, MArch
Wright, Robert - BSc, MLA
Zimmerman, Peter - BA, MES
Art

Faculty Affiliation
Arts and Science

Degree Programs Offered

History of Art – MA, PhD
- Fields: Ancient; Medieval; Renaissance & Baroque; Modern

Visual Studies – MVS
- Fields: Studio; Curatorial Studies

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Book History and Print Culture
   - History of Art, MA, PhD
   - Visual Studies, MVS
2. Jewish Studies
   - History of Art, MA, PhD
3. Knowledge Media Design
   - Visual Studies, MVS
4. Sexual Diversity Studies
   - History of Art, MA, PhD
   - Visual Studies, MVS

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

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

The Master of Visual Studies is a two-year, full-time professional program with two fields: Studio (which prepares students to further their visual art practice) and Curatorial Studies (which prepares students for a contemporary curatorial practice in the visual arts).

Contact and Address
Web: www.art.utoronto.ca
E-mail: Gaby Sparks at gaby.binette@utoronto.ca
Telephone: (416) 946-3960
Fax: (416) 978-1491

Graduate Department of Art
University of Toronto
Room 6037A, Sidney Smith Hall
Toronto, Ontario M5S 3G3
Canada

Degree Programs

History of Art

Master of Arts

Minimum Admission Requirements
- Strong overall grade average in history of art and closely related subjects, with at least B+ average in recent senior art history courses. Outstanding applicants with other backgrounds may be considered.

Program Requirements
- 3.0 graduate full-course equivalents (FCE); coursework must be chosen from at least three of four areas: Ancient, Medieval, Renaissance/Baroque, Modern/Contemporary. No more than 2.0 FCE may be taken in any one of these areas. The equivalent of 1.0 FCE may be taken in another graduate department (e.g., Medieval Studies, Near and Middle Eastern Civilizations), subject to the approval of the Department of Art and the other department concerned.
- Reading knowledge of French, German, or Italian; tested in the first session.
- Orientation to Art Historical Research Methods must be taken in first year.
- Program normally completed in one year.

Doctor of Philosophy

Minimum Admission Requirements
- Minimum A- average in MA
- Direct-entry from BA with exceptionally strong academic record; minimum grade average of A- in art history and humanities courses in last two years.
- Reading knowledge of French, German, or Italian; tested in the first session.
- One or more additional language(s) may be required; students unable to meet language requirements for particular courses may be refused admission to courses; enrolment in all courses is limited and subject to instructor’s approval.
- Students without a MA in Art from U of T may be required to complete at least 1.0 additional full-course equivalent (FCE).
- Acceptance limited to students who propose theses corresponding to research expertise of faculty. See faculty research profiles at www.art.utoronto.ca/people/art-history/graduate-faculty/index_html

Program Requirements
- Students with MA take at least 2.0 full-course equivalent (FCE) graduate courses. MA and PhD courses combined should be in three of the following four areas: Ancient, Medieval, Renaissance/Baroque,
Modern/Contemporary. Courses crossing boundaries will count as one area only.

- **Students with four-year BA** must take a minimum of 4.5 FCE in art history and maintain an average grade of at least an A-.
- Orientation to Art Historical Research Methods must be taken in first year.
- FAH1001H *Methods of Art History*, a departmental methodology course, must be taken in first year. With departmental approval, credit may be given for a research methodology course taken previously at U of T or elsewhere.
- At the end of the first and second years, 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 languages (German, French, or Italian) by the end of second year, if not already done so in the MA. Students focusing on Ancient, Medieval, and Renaissance/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 Graduate Coordinator, and additional languages may be required depending on the research needs of the student's dissertation topic. Language requirements must be completed prior to taking the comprehensive exams.
- Within the first two years for students entering with an MA, or three years for students entering with a BA, students are required to take two comprehensive examinations, the first focusing on one of the four areas and the second on the dissertation field. Upon the completion of all course work and language requirements, 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 – and chaired by the Graduate Coordinator or designate) in order to define the areas of the examination, the length of study, and such readings and special topics as deemed to be appropriate.
- Immediately following successful completion of comprehensive examinations, students must formally establish their PhD Advisory Committee. This will include the faculty member acting as the dissertation supervisor, and two other members of the graduate faculty. These arrangements must be approved by the Department's Graduate Program Committee.
- Working with the PhD Advisory Committee, the student will develop a detailed proposal for their research. The length and specific nature of the proposal will be determined by the Advisory Committee and the PhD student. The drafted proposal must be approved, first by the Advisory Committee, and then by the Department's Graduate Program Committee.
- At some point during the dissertation stage, students will present their work to the faculty and students in an appropriate format and at a time to be determined by the supervisor in consultation with the Graduate Coordinator.

**Course List**

Not all courses are offered each year. Check departmental Web site for course availability.

**Methods**

FAH 1001H *Methods of Art History*

**Ancient**

FAH 2006H Art and Archaeology of the Prehistoric Aegean
FAH 2017H Art and Archaeology of the Everyday
FAH 2033H Triumphal Forms
FAH 2034H Topics in Roman Imperial Art
FAH 2039H The Roman Reception of Greek Art: Image Transfer and Cultural Translation
FAH 2055H The Art of Late Antiquity

**Medieval**

FAH 1120H Problems in Patronage
FAH 1121H Twelfth-Century Renaissance?
FAH 1123H The Art of the Medieval Book
FAH 1124H Byzantine Church Decoration
FAH 1125H Problems in Medieval Pilgrimage
FAH 1126H Exceptional Cities of the Middle Ages
FAH 1127H Early Medieval Art
FAH 1128H Byzantine Art and the West
FAH 1130Y The Classical Tradition in Western Medieval Art
FAH 1131H Profane Medieval Art
FAH 1134H Communal Painting and Propaganda in Italy During the Thirteenth and Fourteenth Centuries
FAH 1135H Naples in the Later Middle Ages
FAH 1141H Words and Images in Medieval Art
FAH 1142H Multicultural Middle Ages
FAH 1171H Beginning of Modernism: From Images to Pictures
FAH 1200H Crusader Art

**Renaissance and Baroque**

FAH 1121H Inside the Painter's Studio
FAH 1226H Architecture and Alchemy Before Modernism
FAH 1240H Art Biography
FAH 1243H The Economic Lives of Renaissance and Baroque Artists
FAH 1245H Pieter Bruegel and Netherlandish Sixteenth-Century Painting
FAH 1246H Renaissance Gothic
FAH 1248H Renaissance Sculpture of Northern Europe
FAH 1249H Margaret of Austria and the Renaissance in the Netherlands
FAH 1285H The Art and Architecture of the Counter Reformation
FAH 1288H Gianlorenzo Bernini
FAH 1290H The Jesuit Baroque
FAH 1291H Architecture, Language, and Literature
FAH 1292H Devotional Spaces in Early Modern Europe
FAH 1293H Architecture of the English Renaissance and Baroque

Modern/Contemporary
FAH 1305H Administrations, Collectors, and Dealers in France, 1648-1824
FAH 1410H Artwriting, Past and Present
FAH 1420H Theories of the Sublime in Art
FAH 1455H The Paris Salon, 1784-1900
FAH 1465H Orientalism
FAH 1474H Avant-Garde, Neo-Avant-Garde
FAH 1475H Picasso
FAH 1476H Surrealism and Post-World War II Art in Europe, the United States, and Canada
FAH 1477H Psychoanalysis and the Visual
FAH 1478H Art and Animation
FAH 1479H Art Before and After Modernity
FAH 1490H Art and Intersubjectivity
FAH 1492H Retreating the Aesthetic
FAH 1493H Queer Sexuality, Visuality & Theory
FAH 1494H The Archive: Logics, Limits, Remains
FAH 1495H The Circuit of Architectural Knowledge
FAH 1500H James Wilson Morrice
FAH 1501H Portrait in Canada, 1760-1860: Painting into Photography
FAH 1502H Recent Canadian Art in International Perspective
FAH 1503H Tom Thomson
FAH 1504H Contemporary Art of South Asia and Its Diaspora
FAH 1505H Primitivism to Globalism: Theories of Otherness in Modern and Contemporary Arts
FAH 1506H GeoAesthetics: Nature, Landscape and the Earth in Recent Art and Theory
FAH 1507H Modernist Exiles in Postcolonial Perspective
FAH 1508H Icon, Artwork, Fetish
FAH 1509H Issues in the History of Contemporary Art after 1960
FAH 1510H Contemporary Art: Theory and Criticism
FAH 1511H Canadian Artists: Michael Snow
FAH 1512H From Steppe to City: Art of the Mongols in China
FAH 1513H Chinoiserie: China and Her Arts in the European Imagination
FAH 1514H Mimesis, Perspective, Vanguardism, Text, and Other Strategies of Seeing Through Chinese Painting
FAH 1515H Decoding Chinese Painting
FAH 1516H The Art of Confrontation: Chinese Visual Culture in the Twentieth and Twenty-first Centuries

Exhibitions, Collections, and Museums
FAH 3004H Special Studies in Collections

Reading Courses
FAH 3000H Special Studies in History of Art (Only one full-course equivalent with this prefix is permitted in any one degree program.)
FAH 3011H Readings in Ancient Art (Credit/No Credit)
FAH 3012H Readings in Medieval Art (Credit/No Credit)
FAH 3013H Readings in Renaissance and Baroque Art (Credit/No Credit)
FAH 3014H Readings in Modern and Contemporary Art (Credit/No Credit)

Research Paper
FAH 4000Y Research Paper

Undergraduate/Graduate Courses
Periodically, the Department may offer fourth-year undergraduate courses that have been recognized for graduate credit. Please visit the departmental Web Site and discuss with the Graduate Coordinator.

Relevant Courses in Other Departments
EAS 1229H Topics in Chinese Aesthetics
EAS 1339H Topics in Chinese Art Theories
MSL 2240H The Photographic Record
NMC 2500Y Introduction to Islamic Art and Architecture
NMC 2520H Western Medieval Islamic Architecture
NMC 2521H The Taj Mahal and Its Origins: Medieval Islamic Architecture in Iran, Central Asia, and India
NMC 2526H Islamic Painting
NMC 2527H Islamic Decorative Arts

Visual Studies

Master of Visual Studies

Minimum Admission Requirements
- Four-year U of T bachelor's degree (BA, BSc) with significant course work in humanities and cultural theory, or an equivalent degree from another recognized university, or a four-year BFA degree from a recognized university.
- Overall average of at least a B+.
- Applications must include:
  o artist's statement that includes a description of the proposed body of work to be undertaken during the two-year program,
  o full curriculum vitae with details of exhibition, professional activity, and education,
  o documentation of recent studio or curatorial work,
  o three letters of recommendation.
- Exceptional portfolio (comprising artworks or curatorial projects and/or critical writing) from an undergraduate program or a substantial exhibition record that accompanies their portfolio.
• Applicants to the MVS Studio program must present a portfolio with documentation of their artworks (video on VHS or DVD) and/or up to 20 slides or images on CD, and/or video documentation of performance or installation. 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), circumstances of display (in the case of installations works and performance works). Details are available on the program’s Web site.

• Facility in 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 primary language of instruction and examination was not English.

Program Requirements
• Full-time program normally extends over two years and begins in September.
• MVS Studio: 4.5 full-course equivalents (FCE) in MVS and 1.5 FCE in outside electives.
• MVS Curatorial Studies: 3.5 FCE in MVS and 2.5 FCE in outside electives.
• Student supervised by an Advisory Panel made up of the Director of the MVS program, a studio faculty member of the MVS program who is considered the student’s Principal Advisor, a second MVS studio faculty member, and possibly another member of the graduate faculty (not necessarily a member of the MVS program).
• MVS Proseminar, a non-credit course that normally meets bi-weekly.

MVS Studio Courses
Required 4.5 FCE
VIS 1001H Interdisciplinary Studio Practicum/Critiques I
VIS 1003H Interdisciplinary Studio Practicum/Critiques II
VIS 1004H Internship
VIS 1010H Contemporary Art Since 1960
VIS 1020H Contemporary Art: Theory and Criticism
VIS 2001H Studio Practicum/Critiques III
VIS 2002H MVS Contemporary Art Issues
VIS 2003Y MVS Project

MVS Curatorial Studies Courses
Required 3.5 FCE
VIS 1101H Paradigmatic Exhibitions: History, Theory, Criticism
VIS 1010H Contemporary Art Since 1960
VIS 1020H Contemporary Art: Theory and Criticism
VIS 1102H Curatorial Studies Collaborative Project
VIS 1004H Internship
VIS 2101Y MVS Curatorial Studies Exhibition Project

Graduate Faculty

Full Members
Anderson, Christy - BA, MA, PhD
Caskey, Jill - AB, MA, MPH, PhD (Director of Graduate Studies & Associate Chair)
Cheetham, Mark - BPhil, MA, PhD
Cohen, Adam - PhD
Ewald, Bjorn - AM, PhD
Harney, Elizabeth - AB, MA, PhD
Hawkwen, George - BA
Jain, Kajri - PhD
Kaplan, Louis - AB, AM, DPhil
Katsougiannopoulou, Christina - PhD
Kvaler, Ethan Matt - PhD
Legge, Elizabeth Mm - BA, BA, MA, PhD (Chair & Graduate Chair)
Levy, Evonne - MFA, PhD
Lloyd, Sue - BA, MFA
Purtle, Jennifer - BLit
Reid, Dennis - BA, MA
Ricco, John - BA, MA, PhD
Safran, Linda - PhD
Sohm, Philip - BA, MA, PhD
Syme, Alison - PhD
Wollesen, Jens - PhD

Members Emeriti
Eleen, Luba - BA, MA, PhD
Richardson, Douglas - BA, MA, PhD
Scavizzi, Giuseppe - PhD
Shaw, Joseph - BA, MAT, PhD
Shaw, Maria - PhD
Winter, Frederick - BA, PhD

Associate Members
Abray, L Jane - BA, MA, MPH, PhD
Bartlett, Kenneth - BA, MA, PhD
Fischer, Barbara - BFA, MA
Hlynsky, David - BFA
Kwan, Will - BA, MFA
Astronomy and Astrophysics

Faculty Affiliation
Arts and Science

Degree Programs Offered
Astronomy and Astrophysics - MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Astronomy and Astrophysics, MSc

Overview
The 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), located in the same building. This association enables our students to consult with leading theorists associated with CITA.

The David Dunlap Observatory (DDO) houses a 1.88-m telescope, the largest in Canada, which is equipped with efficient CCD spectroscopic instruments. Faculty and students enjoy access to the Du Pont 2.5-m telescope at Las Campanas under an instrument development collaboration with the Carnegie Observatories. We have an active experimental program using telescopes on long-duration stratospheric balloons, telescopes for cosmological and Galactic research.

We also 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.

There are approximately 100 faculty, post-doctoral fellows, graduate students, and staff in the Department of Astronomy and Astrophysics and in CITA. 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
E-mail: grad.sec@astro.utoronto.ca
Telephone: (416) 978-2016
Fax: (416) 971-2026

Degree Programs
Astronomy and Astrophysics

Master of Science

Minimum Admission Requirements
- Students are accepted under the general regulations of the School of Graduate Studies. Applicants educated outside Canada should pay particular attention to the English language competency requirements.
- Because many universities do not offer extensive undergraduate training in astronomy and astrophysics, preparation in physics and mathematics is an acceptable background.
- Students are strongly advised to take the verbal, quantitative, and advanced physics tests of the Graduate Record Examination administered by the Educational Testing Service, Princeton.

Program Requirements
- 2.0 required full-course equivalents (FCE): AST 1501Y and AST 1500Y, 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. AST 1501Y is normally completed during the fall/winter of the first year, and AST 1500Y is completed in the following summer.
- Minimum of 1.0 FCE (two half-courses) from the AST preparatory, Elective, or Specialized Courses, subject to the approval of the instructor, the student's MSc program committee, and the Department.
- More courses may be taken for credit or audited as appropriate.

Doctor of Philosophy

Minimum Admission Requirements
- Students are accepted under the general regulations of the School of Graduate Studies. Applicants educated outside Canada should pay particular attention to the English language competency requirements.
- Because many universities do not offer extensive undergraduate training in astronomy and astrophysics, preparation in physics and mathematics is an acceptable background.
- Students are strongly advised to take the verbal, quantitative, and advanced physics tests of the
Program Requirements

• Normally, the degree program is completed in five years (15 sessions). Students are normally expected to be on campus full time for the duration of the program.
• Students with a MSc degree in astronomy and astrophysics from the University of Toronto, or a MSc degree in another appropriate discipline or from elsewhere deemed equivalent by the Department, may apply for admission to the four-year PhD program. Requirements for the four-year PhD program are identical to those for the five-year program, except for the courses. There is no minimum course requirement in the four-year program except for courses deemed necessary by the student's PhD committee.
• 2.0 full-course equivalents (FCE): AST 1501Y and AST 1500Y, with different supervisors. Students are immediately engaged in original research throughout these two required research courses. AST 1501Y is normally completed during the fall/winter of the first year, and AST 1500Y is completed in the following summer. An oral exam by committee is held for each.
• 400*Y (in sequence of the last digit: 2, 3, etc.) Students register each year, beginning in the second year, in the research course AST 400*Y.
• Written PhD thesis proposal, defended in an oral examination conducted by a panel of faculty members. The intention of this “qualifying examination” is to assess the student's ability and readiness to carry forward and successfully complete independent PhD-level research. This assessment is based on the student's graduate record to date, including graduate lecture courses and research performed, together with the presentation and defense of the proposed PhD thesis. The qualifying examination is taken after four and within five sessions of beginning the program.
• A minimum of 2.0 FCE from the AST Preparatory, Elective, or Specialized courses, and courses of equivalent levels from a cognate department, subject to the approval of the student's Program/PhD Committees, the instructor, and the Department. More courses may be taken for credit or audited as appropriate.
• 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.

Course List

Preparatory Courses
AST 1410H Stars
AST 1420H Galactic Structure and Dynamics

Research Courses
AST 1430H Cosmology
AST 1440H Radiation Processes and Gas Dynamics

Elective Courses
AST 2010H Physics of Stellar Atmospheres
AST 2020H Physics of Stellar Interiors
AST 2030H Interstellar Medium and Star Formation
AST 2040H Extragalactic Astronomy
AST 2050H Observational Techniques
AST 2060H General Relativity I: Theory
AST 2070H General Relativity II: Applications and Cosmology

Specialized Courses
AST 3010H Advanced Topics in Stellar and Galactic Astronomy I
AST 3011H Advanced Topics in Stellar and Galactic Astronomy II
AST 3020H Advanced Topics in Interstellar Matter and Star Formation I
AST 3021H Advanced Topics in Interstellar Matter and Star Formation II
AST 3030H Advanced Topics in Extragalactic Astronomy and Cosmology I
AST 3031H Advanced Topics in Extragalactic Astronomy and Cosmology II
AST 3050H Theoretical Cosmology
AST 3100H Lecture Series in Specialized Topics (mini courses)

Supplementary Research for PhD Students
AST 3500H Non-Thesis Research Project in Astronomy/Astrophysics

Graduate Faculty

Full Members
Abraham, Roberto - BSc, PhD (Associate Chair, Graduate)
Artymowicz, Pawel - MS, PhD
Bond, J Richard - BSc, MS, PhD
Carlberg, Raymond - BSc, MS, PhD
Dyer, Charles - BS, MSc, PhD
Jayawardhana, Ray - BS, PhD
Kofman, Lev - PhD
Lester, John - BA, MS, PhD
Lowman, Julian - BSc, MS, DPhil
Martin, Peter - BSc, MSc, PhD (Chair & Graduate Chair)
Matzner, Christopher - BA, MA, PhD
Mochnacki, Stefan - BSc, MSc, PhD
Moon, Dae-Sik - PhD
Murray, Norman - BSc, PhD
Netterfield, C. Barth - BSc, PhD
Pen, Ue-Li - BSc, PhD
Percy, John - BSc, MA, PhD
Srinivasan, Gopalan - BSc, MSc, PhD
Stanley, Sabine - BSc, PhD
Thompson, Christopher - BSc, PhD
van Kerkwijk, Marten - MA, PhD
Yee, Howard - BASc, PhD

Members Emeriti
Clement, Christine - BSc, MA, PhD
Clement, Maurice - BSc, MSc, PhD
Fernie, John - BSc, MSc, PhD
Garrison, Robert - BA, PhD
Seaquist, Ernest - BASc, MA, PhD

Associate Members
Dubinski, John - BSc, MSc, PhD
Rucinski, Slavek - MS, PhD, DSc
Wu, Yanqin - PhD
Biochemistry

Faculty Affiliation
Medicine

Degree Programs Offered
Biochemistry - MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomedical Engineering
   • Biochemistry, MSc, PhD
2. Biomolecular Structure
   • Biochemistry, PhD
3. Developmental Biology
   • Biochemistry, PhD
4. Genome Biology and Bioinformatics
   • Biochemistry, PhD
5. 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 offers modern facilities for research leading to the MSc and PhD degrees in a wide variety of areas including the relationship between structure and biological function in proteins, nucleic acids, and lipids as well as complex multi-component systems such as membranes and subcellular organelles.

Contact and Address
Web: biochemistry.utoronto.ca
E-mail: biochemistry@utoronto.ca
Telephone: (416) 978-2702
Fax: (416) 946-8228

Department of Biochemistry
University of Toronto
Room 5205, Medical Sciences Building
Toronto, Ontario M5S 1A8
Canada

Degree Programs

Biochemistry

Master of Science

Minimum Admission Requirements
- Normally, minimum B+ average in last two years of study in Honours/Specialist BSc program in Biochemistry/Molecular Biology. Students with strong academic credentials in Honours/Specialist programs in disciplines related to Biochemistry/Molecular Biology also considered.
- Applicant arranges for personal reference forms from three individuals familiar with academic performance.
- Applicants who obtained a degree outside Canada are generally required to have an MSc degree in biochemistry or in a closely related subject area and must arrange for general and biochemistry GRE examination results to be sent to the Department.
- Applicants from outside Canada whose primary language is not English and who graduated from a university where the language of instruction was not English must provide TOEFL (Test of English as a Foreign Language) and TWE (Essay Writing) scores.
  - Paper-based TOEFL: minimum 580 score and 5 on the TWE.
  - Computer-based TOEFL: minimum 237 score and 5 on the essay rating component.
  - Internet-based TOEFL: minimum 93/120 score and 22/30 on the writing and speaking sections.
  - In the absence of TOEFL results, an IELTS score of at least 7 is also acceptable.

Program Requirements
- Complete any courses that were a condition of acceptance
- Complete BCH 2021H Selected Topics in Biochemistry (0.5 FCE) or BCH 2024H* Focused Topics in Biochemistry (0.5 FCE).
- Participate in BCH 2020Y* Master’s Seminar Course in Biochemistry.
- Thesis and successful completion of an oral examination on his or her 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.

Courses which may continue over a program. The course is graded when completed.
Degree Programs by Graduate Unit

Doctor of Philosophy

Minimum Admission Requirements
• Applicant arranges for personal reference forms from three individuals familiar with academic performance.
• Applicants who obtained a degree outside Canada are generally required to have an MSc degree in biochemistry or in a closely related subject area and must arrange for general and biochemistry GRE examination results to be sent to the Department.
• Applicants from outside Canada whose primary language is not English and who graduated from a university where the language of instruction was not English must provide TOEFL (Test of English as a Foreign Language) and TWE (Essay Writing) scores.
  o Paper-based TOEFL: minimum 580 score and 5 on the TWE.
  o Computer-based TOEFL: minimum 93/120 score and 22/30 on the writing and speaking sections.
  o Internet-based TOEFL: minimum 20/30 score and 8 on the writing and speaking sections.
• Students accepted into the PhD program through one of three routes:
  1. via reclassification from the MSc program;
  2. on completion of an MSc degree in biochemistry or a cognate discipline;
  3. directly from a BSc if, in the opinion of the Biochemistry Graduate Committee, the student has an outstanding academic record.
• The latter two categories require the student to successfully complete a qualifying examination within the first 18 months.

Program Requirements
• Complete any courses that were a condition of acceptance.
• Complete 1.5 internal or external (from cognate departments) graduate-level courses, including at least BCH 2021H Selected Topics in Biochemistry (0.5 FCE), or BCH 2024H Focused Topics in Biochemistry (0.5 FCE). Students may take both as part of the 1.5 FCE required courses.
• Participate in BCH 2022Y Doctoral Seminar Course in Biochemistry.
• Submit a thesis and defend it at a School of Graduate Studies 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.

Course List

For course details and availability, consult the Department’s Web site.

BCH 1371H Laboratory Course in Biochemistry (BCH 371)∗
BCH 1422H Membrane Proteins: Structure and Function—Lectures (BCH 422H)*
BCH 1426H Regulation of Signalling Pathways—Lectures (BCH 426H)*
BCH 1440H Protein Biosynthesis—Lectures (BCH 440H)*
BCH 1441H Bioinformatics (BCH 441H)*
BCH 1471Y Advanced Biochemistry—Laboratory (BCH 471Y)—prerequisite is BCH 371∗ or equivalent

BCH 2020Y Master’s Seminar Course in Biochemistry (Credit/No Credit)
BCH 2021H Selected Topics in Biochemistry: Advanced lectures to supplement the above lower-numbered courses in Biochemistry
Fall 2009: Molecular Machines, Biosensors and Nanotechnology
Spring 2010: Protein Interactions: From Principles of Recognition to Drug Design

BCH 2022Y Doctoral Seminar Course in Biochemistry (Credit/No Credit)
BCH 2024H Focused Topics in Biochemistry
JBB 1425H Structural Biology: Principles and Practice—Lectures (BCH 425H)*
JBB 2025H Protein Crystallography—Lectures
JBB 2026H Protein Structure, Folding and Design
JBI 1428H Molecular Immunology—Lectures (JBI 428H)*
JBL 1507H Biochemistry of Inherited Disease
JNP 1017H Molecular and Biochemical Basis of Toxicology
JNP 1018H Current Topics in Molecular and Biochemical Toxicology
JNR 1444Y Fundamentals of Neuroscience: Cellular and Molecular—Lectures (PSL 444Y)*
JTB 2010H Proteomics and Functional Genomics
JTB 2020H Applied Bioinformatics

Graduate Faculty

Full Members
Adeli, Khosrow - DIPCHEM, MSc, PhD
Atisano, Liliana - BSc, PhD
Baker, Robert - BSc, PhD
Bazett-Jones, David - BSc, MSc, PhD
Bear, Christine - BSc, MSc, PhD
Brown, Grant - BSc, PhD
Callahan, John - BSc, MSc
Chakrabarty, Avijit - BSc, MSc, PhD
Chan, Hue Sun - BSc, MA, PhD
Clarke, David - PhD
Davidson, Alan Richard - BSc, PhD

* Arts and Science undergraduate course
+ Courses which may continue over a program. The course is graded when completed.
+ Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Deber, Charles - BSc, PhD
Forman-Kay, Julie - BSc, PhD
Glover, John - BSc, MSc, PhD
Grinstein, Sergio - BSc, PhD
Houry, Wald - BS, MS, PhD
Howell, Lynne - BSc, PhD
Ingles, C James - BSc, PhD
Isenman, David - BSc, BSc, PhD
Jorgensen, Annelise - MSc, PhD
Kay, Lewis - PhD
Keeley, Frederick - BSc, PhD
Klip, Amira - SCD
Lewis, Peter - BSc, PhD
Lingwood, Clifford - BSc, PhD
Lukacs, Gergely - MD, PhD
Maclennan, David - BSc, MSc, PhD
Manolson, Morris - PhD
McQuibban, Angus - BSc, MSc, PhD
Moran, Laurence - BSc, PhD
Pai, Emil - PhD
Parkinson, John - BS, PhD
Pomes, Regis - PhD
Prive, Gil - BSc, PhD
Pulleyblank, David - BSc, PhD
Rand, Margaret - BSc, PhD
Reithmeier, Reinhart - BSc, PhD *(Chair & Graduate Chair)*
Rini, James - BSc, PhD *(Coordinator of Graduate Studies)*
Robinson, Brian - BSc, PhD
Rotin, Daniela - BSc, MSc, PhD
Rubinstein, John - BSc, PhD
Segall, Jacqueline - BSc, PhD
Sharpe, Simon J - BSc, PhD
Siu, Chi-Hung - BA, PhD
Smibert, Craig - BSc, PhD
Stagljar, Igor - BS, PhD
Steipe, Boris - MD, PhD
Trimble, William - BSc, PhD
Volchuk, Allen - BSc, PhD
Williams, David - BSc, MSc, PhD
Wodak, Shoshana - LICSCCHEM, PhD
Yip, Christopher - BSc, PhD

Members Emeriti
Anwar, Rashid - BSc, MSc, PhD
Bennick, Anders - DipPerio, MSc, DDS, PhD
Gurd, James - BA, PhD
Lane, Byron - BA, PhD
Marks, Alexander - MD, PhD
Moscarello, Mario - BA, MD, PhD
Murray, Robert - MS, MD, MB, PhD
Packham, Marian - PhD
Painter, Robert - BSc, PhD
Sarkar, Bibudhendra - BPHM, MPharm, PhD
Schachter, Harry - BA, MD, PhD
Williams, George - BSc, DSc, DSc
Biomedical Engineering

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Biomedical Engineering - MASc, PhD
Clinical Biomedical Engineering – MHSc

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Biomedical Engineering, MASc, PhD
2. Cardiovascular Sciences
   • Biomedical Engineering, MASc, PhD
3. Genome Biology and Bioinformatics
   • Biomedical Engineering, PhD
4. Health Care, Technology and Place
   • Biomedical Engineering, PhD
5. Neuroscience
   • Biomedical Engineering, MASc, PhD

Overview
The Institute of Biomaterials and Biomedical Engineering (IBBME) offers facilities for research in biomedical engineering and for three educational programs leading to master’s and doctoral degrees. Students may be registered in the Biomedical Engineering Program or in the Clinical Biomedical Engineering Program through the Institute. Students interested in the Collaborative Program in Biomedical Engineering may register through one of the collaborating graduate units.

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.

Research themes include diagnostic and therapeutic engineering, technology for health, and cellular and molecular bioengineering. Specific interests include neural and sensory systems engineering, molecular imaging, nanotechnology and microtechnology, biomaterials, rehabilitation engineering, cellular and tissue engineering, regenerative medicine proteomics and bioinformatics.

Contact and Address
Web: www.ibbme.utoronto.ca

Institute of Biomaterials and Biomedical Engineering (IBBME) Graduate Office
E-mail: admissions.ibbme@utoronto.ca
Telephone: (416) 978-4841
Fax: (416) 978-4317

Institute of Biomaterials and Biomedical Engineering
University of Toronto
Room 407, Rosebrugh Building
164 College Street
Toronto, Ontario M5S 3G9
Canada

Clinical Biomedical Engineering Office
E-mail: clinicaleng.ibbme@utoronto.ca
Telephone: (416) 978-6102
Fax: (416) 978-4317

Institute of Biomaterials and Biomedical Engineering
University of Toronto
Room 407, Rosebrugh Building
164 College Street
Toronto, Ontario M5S 3G9
Canada

Degree Programs

Biomedical Engineering

Master of Applied Science

Minimum Admission Requirements
• Graduate in dentistry, engineering, medicine, or one of the physical or biological sciences

Program Requirements
• Program normally comprises at least 2.0 full-course equivalents (FCE), including BME 1450H and an appropriate life science or engineering course. Engineering and physical science students take a life sciences course, such as JPB 1022H (or an equivalent); while life science students take a physical sciences course, such as JPB 1055H (or an equivalent).
• Students participate in two seminar courses: one of BME 1010H or BME 1011H Graduate Seminar series, and JDE 1000H Ethics in Research.
• Successful completion of a thesis in the biomedical engineering field.
• Students normally complete all degree requirements within 18-24 months.
Degree Programs by Graduate Unit

Doctor of Philosophy

Minimum Admission Requirements

- Graduate in dentistry, engineering, medicine, or one of the physical or biological sciences with an appropriate master’s degree.
- Direct admission may be considered in exceptional cases.

Program Requirements

- Normally at least 1.0 full-course equivalent (FCE) and successful completion of a thesis, representing an original investigation in biomedical engineering.
- Within 12 months of registration, students must pass a qualifying examination covering the broad field of biomedical engineering appropriate to their background.
- 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 University of Toronto Final Oral Examination.
- Engineering and physical science students are required to take a life sciences course, such as JPB 1022H (or an equivalent); while life science students are required to take a physical sciences course, such as JPB 1055H (or an equivalent).
- Students pursue a thesis topic relevant to Biomedical Engineering and are expected to take BME 1450H Bioengineering Science.
- Students participate in two seminar courses: one of BME 1010H or BME 1011H Graduate Seminar series, and JDE 1000H Ethics in Research.

Clinical Biomedical Engineering

Master of Health Science

At press time, program requirements for the MHSc program were pending final approval.

Minimum Admission Requirements

- Selected students who hold the degree of Bachelor of Applied Science of this University or an equivalent degree in engineering.

Program Requirements

- Normally 4.0 FCE, including BME1450H, a life science equivalent and 1.0 FCE of internships in health care facilities, the medical device industry, or health care consulting firms. All students are required to take a life sciences course, such as JPB 1022H (or an equivalent).
- Students participate in two seminar courses: one of BME 1010H or BME 1011H Graduate Seminar series, and JDE 1000H Ethics in Research.
- Successful completion of a thesis in the clinical engineering field.
- Program requirements are normally completed in two years of full-time study. All degree requirements must be completed within three years.

Course List

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

BME 1010H Graduate Seminar
BME 1011H Graduate Seminar
BME 1405H Clinical Engineering Instrumentation I
BME 1430H Mathematical Theory of Tracer Kinetics
BME 1436H Clinical Engineering Surgery
BME 1439H Clinical Engineering Instrumentation II
BME 1445H Special Topics in Clinical Engineering
BME 1446H Transduction of Physiological Events
BME 1450H Bioengineering Science
BME 1452H Signal Processing for Bioengineering
BME 1453H Cell and Tissue Engineering
BME 1454H Regenerative Medicine: Fundamentals and Applications
BME 1456H Changing Health Care Technologies, People, and Places
BME 1457H Biomedical Nanotechnology
BME 1458H Pattern Discovery Methods for Biomedical Engineering
BME 1459H Protein Engineering
BME 4444Y Practice in Clinical Engineering
JCB 1349H Molecular Assemblies: Structure/Function/Properties
JDE 1000H Ethics in Research
JEB 1365H Ultrasound: Theory and Applications in Biology and Medicine
JEB 1375H Practical Optimization
JEB 1433H Medical Imaging
JEB 1444H Neural Engineering
JEB 1447H Sensory Communications
JEB 1451H Neural Bioelectricity
JPB 1022H Human Physiology as Related to Biomedical Engineering
JPB 1055H Bioengineering for Life Scientists
JTC 1331H Biomatertials Science
MBP 1007H Fundamentals in Molecular and Cell Biology I
MBP 1008H Fundamentals in Molecular and Cell Biology II
MBP 1022H Advanced Cell Biology for Physical Scientists
PSL 1052H Fundamentals of Ion Channel Function
ZOO 1002H Advanced Research and Reading Course
HAD 5010H Canada’s Health System and Health Policy: Part I
Graduate Faculty

Full Members
Adamson, Susan - BSc, MSc, MD, PhD
Amon, Cristina - BASc, MSc, SCD
Aubin, Jane - BSc, PhD
Audet, Julie - MASc, PhD
Bardakjian, Berj - BSc, BED, MASc, PhD
Benhabib, Bensiyon - BSc, MSc, PhD
Bogoich, Earl - BA, MSc, MD
Cafazzo, Joseph - DPhil
Caldarone, Christopher - BSc, MD
Carlen, Peter - MD
Chan, Warren - BSc, PhD
Chau, Tom - PhD
Cheng, Yu-Ling - SB, PhD
Cheyne, Douglas - BSc, MA, PhD
Coates, Allan - BEng, MDCM, MDCCH
Courtman, David - BSc, MSc, PhD
Davies, John - BSc, BDSC, PhD, DSc
Easty, Anthony - PhD
Eizeman, Moshe - BASc, MASc, PhD
Ethier, C Ross - BSc, MMath, SM, PhD
Fernie, Geoffrey - BSc, PhD
Frecker, Richard - BSc, MD, PhD
Ginges, Howard - BSc, LRPC, MD, PhD
Gross, Allan - MD
Grynpas, Marc - MSc, PhD
Harrison, Robert - PhD, DSc
Johnston, K. Wayne - MD
Joy, Michael - BSc, MASc, PhD
Kandel, Rita - MD
Keating, Armand - BSc, MD
Kelley, Shana - BA, PhD
Keshavjee, Shafique - BA, MSc, LMCC, MD
Levi, Ofer - PhD
Mandelis, Andreas - BSc, MA, MSc, PhD
Norwich, Kenneth - MSc, PhD
Popovic, Milos - Dipling, PhD
Pritzker, Kenneth - BSc, MD
Radisic, Milica - BEng, PhD
Reid, Denise - BSc(OT), Med, PhD
Rocheleau, Jonathan - BSc, PhD
Ryu, William - AB, PhD
Santerre, Paul - BSc, MSc, PhD (Director)
Selton, Michael - BASc, SCD
Shoichet, Molly - PhD
Siewerdsen, Jeffrey - BA, MS, PhD
Silverman, Melvin - BSc, MDCCH
Simmons, Craig - BSc, MSc, PhD
Skinner, Frances - PhD
Slutsky, Arthur - BASc, MASc, MD
Stanford, William - BA, PhD
Strass, Bradley - MD
Sun, Yu - BS, MS, MS, PhD
Thompson, Michael - BSc, PhD, DSc
Thorpe, Steven - BASc, MASc, PhD
Truong, Kien (Kevin) - BASc, PhD
Wang, Paul - BSc, PhD
Wong, Willy - BSc, MSc, PhD
Wright, Graham - BSc, MSc, PhD

Members Emeriti
Cobbold, Richard - PhD
Dolan, Alf - BSc, MSc
Kunov, Hans - MSc, PhD
Pilliar, Robert - BASc, PhD
Watson, Philip - DDS, BDSC, MScD

Associate Members
Allen, Christine - BSc, PhD, PhD
Biddiss, Elaine Alisa - MASc, PhD
Gemmell, Cynthia - PhD
Howarth, David - LMCC, MD
Islam, Mohammad - PhD
Kilkenny Rocheleau, Dawn - PhD
Lapinsky, Stephen - MSc, MBChB
Maki, Brian - BASc, MASc, PhD
McConville, Kristiina - PhD
Michaels, Howard - PhD
Nagai, Mary - PhD
Shojania, Kaveh - BSc, MD
Sodhi, Rana - BSc, MSc, PhD
Sone, Eli - BSc, MS, PhD
Steele, Catriona - BA, MHSc, PhD
Steinman, David - BASc, MASc, PhD
Tibovich, Patricia L - PhD
van Lieshout, Pascal - MA, MA, PhD
Woodhouse, Kimberly Ann - BEng, PhD

Yip, Christopher - BASc, PhD (Associate Director & Graduate Coordinator)
You, Lidan - BS, MS, PhD
Zandstra, Peter - BEng, PhD
Cell and Systems Biology

Faculty Affiliation
Arts and Science

Degree Programs Offered
Cell and Systems Biology – MSc, PhD

Programs Closed to Admission
Plant and Microbial Biology – MSc, PhD
Zoology – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Developmental Biology
   • Cell and Systems Biology, PhD
2. Genome Biology and Bioinformatics
   • Cell and Systems Biology, PhD
3. Neuroscience
   • Cell and Systems Biology, MSc, PhD

Overview
Cell and Systems Biology (CSB) offers a master's program leading to the degree of Master of Science and a doctoral program leading to the degree of Doctor of Philosophy in the fields of Cell, Molecular, and Systems Biology. Students undertaking graduate programs in CSB 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: www.csb.utoronto.ca
E-mail: sue.taylor@utoronto.ca
Telephone: (416) 978-3477
Fax: (416) 946-5765

Department of Cell and Systems Biology
University of Toronto
Ramsay Wright Building
Room 424, 25 Harbord Street
Toronto, Ontario M5S 3G5
Canada

Degree Programs

Cell and Systems Biology

Master of Science

Minimum Admission Requirements
• School of Graduate Studies general admission requirements.
• Minimum equivalent of a University of Toronto B+ average in the last year of an honours BSc program, plus a minimum mid-B overall average in the previous year of study.

Program Requirements
• The MSc program is normally completed within 24 months (6 sessions).
• Complete CSB 1000H (0.5 FCE).
• Complete the CSB 1010Y MSc seminar series (credit only, 24 seminars per year, plus attendance at two CSB PhD Proposal/Transfer Days 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.

Doctor of Philosophy

Minimum Admission Requirements
PhD degree students are generally accepted by one of three routes:
• following completion of a MSc degree, or its equivalent from a recognized university, with a minimum A- average in all work completed in the master's program,
• by transferring from the MSc program: Students may reclassify from the MSc program after 12 months of study.
• by direct entry, that is, after completing an honours BSc program with an exceptional record with a minimum University of Toronto A- average or equivalent.

Program Requirements
• Complete CSB 1000H (0.5 FCE) and one additional CSB 100XH (0.5 FCE) or equivalent.
• Complete the CSB 1011Y PhD seminar series (credit only, 24 seminars per year, plus attendance at two CSB PhD Proposal/Transfer Days per year).
• Complete a thesis on a research project, give a public presentation of the thesis research, and defend the thesis at the final oral examination.
• Students who have completed a MSc degree are expected to complete the PhD program within 4 years.
• Students transferring from the MSc program are expected to complete the PhD program within 5 years from the start date of enrolment in the MSc program.
All PhD students (including MSc students wishing to reclassify as PhD students) must successfully
complete a PhD Proposal/Transfer Examination. The PhD Proposal/Transfer Examination involves three components:
1. preparation of a written research proposal;
2. presentation to the department and questioning by the public at the Departmental PhD Proposal/Transfer Day; and
3. in camera questioning by a PhD Proposal Examination Committee within 2 weeks of the public presentation.

There are two dates available for the Proposal/Transfer process per year, one in October and the other in February. Students must successfully complete their Proposal/Transfer Examination at either one of these dates, at 13 months or 17 months after the start date of enrolment in their graduate program. Students who transfer from the CSB MSc program to the PhD program may apply course credits earned as CSB MSc students toward their PhD course requirements.

- Direct-entry students from a BSc program are expected to complete the PhD program within 5 years.
- PhD candidates make an oral presentation of their thesis for evaluation to the Department as a whole and to a departmental evaluation committee before proceeding to the School of Graduate Studies' Final Oral Examination.

Course List

CSB 1000H+ Topics in Cell and Systems Biology 1
Consists of two modules. Detailed information on modules can be found on the Department of Cell and Systems Biology Web site.

CSB 1001H+ Topics in Cell and Systems Biology 2

CSB 1002H+ Topics in Cell and Systems Biology 3

CSB 1010Y* MSc Seminar Series

CSB 1011Y* PhD Seminar Series

JBZ 1472H Computational Genomics and Bioinformatics

Graduate Faculty

Full Members

Aarts, Michelle Marie - BS, MS, PhD
AbouHaidar, Mounir - DipdESup, BSc, PhD
Anderson, James - BA, PhD
Barrett, F Michael - BSc, MSc, PhD
Berleth, Thomas - BSc, MSc, PhD
Boonstra, Rudy - BSc, PhD
Brown, Ian - BSc, PhD
Bruce, Ashley - BA, PhD
Buck, Leslie - BSc, PhD (Associate Chair for Graduate Studies)
Campbell, Malcolm - DPhil
Chang, Belinda - AB, PhD
Christendat, Dinesh - PhD
Coleman, John - BSc, PhD
Cutter, Asher - PhD
Desveaux, Darrell - BSc, MSc, PhD
Edwards, Elizabeth - BEng, PhD
Espie, George - PhD
Fullard, James - BSc, MSc, PhD
Fulthorpe, Roberta - BSc, MSc, PhD
Gazzarrini, Sonia - BA, PhD
Gerlai, Robert - MSc, PhD
Godt, Dorothea - MS, DRRERNAT
Goring, Daphne - PhD
Guttman, David - BS, PhD
Harrison, Rene - BS, MS, PhD
Hasenkampf, Clare - BSc, MS, PhD
Horgen, Paul - BA, MS, PhD
Kohn, Linda - BS, PhD
Kronzucker, Herbert - PhD
Lange, Angela - BSc, PhD
Larsen, Ellen - BSc, MSc, PhD
Levine, Joel - BA, PhD
Lovejoy, David - PhD
Lovejoy, Nathan Richard - BSc, MS, PhD
Mason, Andrew - MS, PhD
Master, Emma - BSc, PhD
McCourt, Peter - PhD
Moncalvo, Jean-Marc - PhD
Moses, Alan - BA, PhD
Nambara, Eiji - MS, PhD
Nash, Joanne - BS, MSc, PhD
O'Day, Danton - BSc, MSc, PhD
Orchard, Ian - BSc, PhD, DSc
Peever, John - MSc, PhD
Provart, Nicholas - PhD
Reid, Stephen - BS, PhD
Riggs, Charles - BS, PhD
Ringuette, Maurice - BSc, PhD
Romans, Patricia - BSc, MSc, PhD
Ryu, William - AB, PhD
Smith, J.J. Berry - BA, MA, PhD
Sokolowski, Marla - PhD
Stephenson, Gregory - BSc, PhD
Stewart, Bryan - BSc, MS, DPhil
Stinchcombe, John - BA, PhD
Tepass, Ulrich - MSc, PhD
Terebiznik, Mauricio - BSc, PhD
Tobe, Stephen - BSc, MSc, PhD
Tropepe, Vince - BSc, PhD
Vanlerberghe, Greg - BSc, MSc, PhD
Varmuza, Susannah - BSc, MSc, PhD
Westwood, J. Timothy - PhD
Winklbauer, Rudolf - MSc, PhD
Woodin, Melanie - MSc, PhD
Yeomans, John - BA, PhD
Yoshioka, Keiko - PhD

*Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
*Courses which may continue over a program. The course is graded when completed.
Members Emeriti
Desser, Sherwin - BSc, MSc, PhD
Mrosovsky, Nicholas - BA, PhD
Youson, John - BA, MSc, PhD

Associate Members
Revers, Leigh - PhD
Chemical Engineering and Applied Chemistry

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Chemical Engineering and Applied Chemistry – MASc, MEng, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomedical Engineering
   • Chemical Engineering and Applied Chemistry, MASc, PhD
2. Environmental Engineering
   • Chemical Engineering and Applied Chemistry, MASc, MEng, PhD
3. Environmental Studies
   • Chemical Engineering and Applied Chemistry, MASc, MEng, PhD
4. Genome Biology and Bioinformatics
   • 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. Graduate programs lead to the degrees of Master of Applied Science (MASc), Master of Engineering (MEng), and Doctor of Philosophy (PhD). 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 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:
1. Biomolecular and Biomedical Engineering
2. Bioprocess Engineering
3. Advanced Inorganic Molecular Systems
4. Engineering Informatics
5. Environmental Science and Engineering
6. Pulp and Paper
7. Surface and Interface Engineering
8. Sustainable Energy

A more complete and up-to-date description of graduate research programs and enrolment procedures appears on www.chem-eng.utoronto.ca.

Contact and Address
Web: www.chem-eng.utoronto.ca/
E-mail:
Admissions: admisgrad.chemeng@utoronto.ca
General: gradassist.chemeng@utoronto.ca
Telephone: (416) 976-3987
Fax: (416) 978-1376

Department of Chemical Engineering and Applied Chemistry
University of Toronto
Room 212, Wallberg Building
200 College Street
Toronto, Ontario M5S 3E5
Canada

Degree Programs
Chemical Engineering and Applied Chemistry

Master of Applied Science

Minimum Admission Requirements
• Students are admitted under general SGS regulations.

Program Requirements
• Thesis on a research topic.
• At least three graduate courses, one of which normally must be selected from Category A - Fundamental (see courses below), and at least one of which must be selected in an area outside the student's field of research specialization. Furthermore, only one 500-level course may be taken for credit towards the degree program. Students are also required to complete CHE 2222H, CHE 3000Y, and JDE 1000H. Students are required to take a graduate student seminar course two times in their program, once in the first year and once in the second year of study.
• Each candidate should discuss possible research projects with several members of the Department before selecting a research area and a supervisor.
• The program requires a minimum full-time residence of two sessions (8 months).
Master of Engineering

Minimum Admission Requirements
• Students are admitted under general SGS regulations.

Program Requirements
• The program normally requires completion of a total of 5.0 full-course equivalents (FCE) or 3.5 FCE plus a 1.5 FCE project supervised by a faculty member. The project must be defended at an oral examination.
• There is no minimum period of residency. The MEng program can be completed either through full-time or part-time studies. The full-time program is designed to be completed within 12 months, including the summer session. The part-time program is intended primarily for engineers in full-time professional practice; the degree must be completed within six calendar years.

Doctor of Philosophy

Minimum Admission Requirements
• Applicants may enter the program via one of three routes:
  1. following completion of the MASc program with a minimum B+ average and exceptional all-round scientific and intellectual ability as evidenced from theoretical or experimental research, academic standing, initiative, and publication record
  2. transferring from the MASc program after completing one year. Such students must successfully complete a “bypass” examination.
  3. direct entry after completing a bachelor's degree may also be considered in exceptional cases.
• International applicants with a master's degree in their country of residence may be asked to register in the MASc program and follow entry route 2.

Program Requirements
• Thesis on a research topic.
• Students with completed MASc degree: at least 2.0 full-course equivalents (FCE).
• Transfer students: 3.0 FCE for students without a master's degree 2.0 FCE for students with a completed master's degree. Transfer students do not have to take a separate PhD qualifying examination.
• Direct-entry students: at least 3.0 FCE.
• 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 minor 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. Students are also required to complete CHE 3000Y and, if not already completed, CHE 2222H and JDE 1000H. Students are required to take a graduate student seminar course two times in their program, once in the first year and once in the third year of study.
• Within 9 to 12 months of starting the PhD program, students must pass a qualifying examination. Students normally remain in residence (full time, on campus) until the departmental recommendation for the Final Oral Examination is made, unless special permission to do so has otherwise been granted by the Departmental Graduate Studies Committee.

Course List
A course schedule is available on the departmental Web site at the beginning of each session listing the time and room location for each course. Not all courses are given every year. Students in the MASc and PhD programs are required to take CHE 3000Y Seminars in Chemical Engineering and Applied Chemistry in each session of full-time registration. All students wishing to undertake research and teaching in the Department of Chemical Engineering and Applied Chemistry must successfully complete a two-day intensive occupational health and safety training workshop, CHE 2222H 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 WHMIS refresher workshop. Students registered in a graduate degree program involving research are required to participate in the non-credit seminar course JDE 1000H Ethics in Research during their first or second session of registration.

Category A - Fundamental Courses
CHE 1107H Applied Mathematics
CHE 1140H Topics in Process Identification and Control
CHE 1141H Advanced Chemical Reaction Engineering
CHE 1142H Applied Chemical Thermodynamics
CHE 1143H Transport Phenomena
CHE 1144H Separation Processes
CHE 1147H Data Mining in Engineering
CHE 1149H Electrolyte Thermodynamics
JTC 1135H Applied Surface Chemistry
CHE 1180H Advanced Topics in Chemical Engineering
CHE 1310H Chemical Properties of Polymers
JCI 1503H Advanced Topics in Computing and Information Systems
CHE 1800Y MEng Project
CHE 2504H Industrial Pollution Prevention

Category B - Specialized Courses
CHE 1118H Industrial Catalysis
CHE 1134H Advances in Bioengineering
CHE 1213H Corrosion
CHE 1314H The Structure and Properties of Fibrous Materials
CHE 1331H Biomaterials Science
JCB 1349H Molecular Assemblies: Structure/Function/Properties
CHE 1400H Environmental Nuclear Science
CHE 1533H Nuclear Chemical Engineering
CHE 1541H Two-Phase Flow and Heat Transfer
JCC 1313H Environmental Microbiology
JCI 1321H Wood Engineering
JNC 2503H Environmental Pathways

**Engineering Management Courses**
APS 501H Leadership and Leading in Groups and Organizations
APS 1001H Project Management
APS 1002H Financial Engineering
APS 1003H Professional Education and Instruction
APS 1004H Human Resource Management - An Engineering Perspective
APS 1005H Operations Research for Engineering Management
APS 1088H Entrepreneurship and Business for Engineers
APS 1201H Topics in Engineering and Public Policy

**500-level (undergraduate/graduate) Courses**
CHE 507H Process Modelling and Simulation
CHE 553H Electrochemistry
CHE 561H Risk Based Safety Management
CHE 564H Pulp and Paper Processes
CHE 565H Aqueous Process Engineering
CHE 566H Nuclear Engineering
CHE 575H Mechanical Properties of Bio-Composites and Biomaterials

**Seminar Courses**
CHE 1211H Pulp and Paper Seminars (Credit/No Credit)
CHE 2011H Graduate Student Seminars (Credit/No Credit)
CHE 3000Y Seminars in Chemical Engineering and Applied Chemistry (Credit/No Credit)

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.

**Graduate Faculty**

**Full Members**
Allen, D Grant - BASc, MASc, PhD
Audet, Julie - MASc, PhD
Cheng, Yu-Ling - SB, PhD
Cluett, William - BSc, PhD
Cooper, Paul - BEd, BSc, MSc, PhD
Cormack, Donald - BASc, MASc, PhD
Coyle, Thomas - BS, BA, SCD
Diamond, Miriam - MSc, MSc, PhD
Diosady, Levente - BASc, MASc, PhD
Edwards, Elizabeth - BEng, PhD
Evans, Gregory - PhD
Farnood, Ramin - BASc, MASc, PhD
Fulthorpe, Roberta - BSc, MSc, PhD
Jia, Charles - BEng, MEng, PhD
Kawaji, Masahiro - BASc, MSc, PhD
Kirk, Donald - BASc, MASc, PhD
Kortschot, Mark - BASc, MASc, PhD
Kumacheva, Eugenia - MSc, PhD
Lawryshyn, Yuri - Diploma, BASc, MASc, PhD
Mims, Charles - PhD
Newman, Roger Charles - BA, PhD, DSc
Papangelakis, Vladimir - MEng, PhD (Associate Chair)
Radisic, Milica - BEng, PhD
Reeve, Douglas - BSc, MASc, PhD (Chair & Graduate Chair)
Sain, Mohini - PhD
Saville, Bradley - BSc, PhD
Selton, Michael - BASc, SCD
Shoichet, Molly - PhD
Stanford, William - BA, PhD
Thomson, Murray - BSc, PhD
Thorpe, Steven - BASc, MASc, PhD
Tran, Honghi - PhD
Yan, Ning - BSc, PhD
Yip, Christopher - BSc, PhD

**Members Emeriti**
Balke, Stephen - BEng, PhD
Boocock, David - BSc, PhD
Chaffey, Charles - BSc, PhD
Charles, Michael - BSc, MSc, PhD
Foulkes, Frank - BASc, MASc, PhD
James, David - BSc, MS, MA, PhD
Jervis, Robert - BA, MA, PhD
Lus, Rein - BASc, MASc, AM, PhD
Mackay, Donald - BSc, PhD
Paradi, Joseph - BSc, PhD
Phillips, Mary - BASc, BASc, MA, PhD
Smith, James - BASc, MASc, PhD
Trass, Olev - BSE, SCD

**Associate Members**
Bidleman, Terry - BSc, PhD
Goodfellow, Howard - BASc, MASc, PhD
Grace, Thomas Michael - BS, PhD
Liss, Steven - BSc, MSc, PhD
Mckague, Bruce - BSc, PhD
Oshinowo, Olatokunbo - BASc, MASc, PhD
Sayad, Saed - MD, PhD
Szabo, Paul - BEng, MEng
Woodhouse, Kimberly Ann - BEng, PhD

Chemical Engineering and Applied Chemistry 125
Chemistry

Faculty Affiliation
Arts and Science

Degree Programs Offered
Chemistry – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomolecular Structure
   • Chemistry, PhD
2. Environmental Studies
   • Chemistry, MSc, PhD

Overview
Modern facilities are available for research leading to the Master of Science and Doctor of Philosophy degrees. 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.chem.utoronto.ca
E-mail: grad@chem.utoronto.ca
Telephone: (416) 978-3605
Fax: (416) 978-1631

Department of Chemistry
University of Toronto
Room 153, Lash Miller Building
80 St. George Street
Toronto, Ontario M5S 3H6
Canada

Degree Programs
Chemistry

Master of Science
Minimum Admission Requirements
• Appropriate four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, with an average of at least B+.

Program Requirements
• Submission of a thesis, the successful completion of 1.0 graduate full-course equivalent (FCE), and participation in a seminar program.

Doctor of Philosophy
Minimum Admission Requirements
• Appropriate University of Toronto master's degree, or its equivalent from a recognized university, with a minimum B+ average.
• An exceptional student with an appropriate BSc degree may be admitted directly to the PhD program. Alternatively, transfer to the PhD program may be considered after a one-year MSc residency period.

Program Requirements
• The main requirement for the PhD program is the execution of an original investigation that is presented in a thesis. Each program requires successful completion of an oral examination in the area of the major field, as well as participation in a seminar program.
• Students select one of the following as a major field:
  o Analytical Chemistry
  o Environmental Chemistry
  o Inorganic Chemistry
  o Organic and Biological Chemistry
  o Experimental Physical Chemistry
  o Theoretical Physical Chemistry
  o Polymers and Materials Chemistry

Combinations within these fields, or with other disciplines, are permitted under the category of an interdisciplinary program. With the exception of Theoretical Physical Chemistry, each program requires a minimum of 1.0 to 2.0 full-course equivalents (FCE) from approved graduate courses offered in the School of Graduate Studies, depending on the student's academic background. The number of courses required will be determined in consultation with the supervisor and Graduate Studies Committee. Up to 1.0 FCE taken for credit in the master's program may be used to partially fulfill the PhD requirements.

Specific requirements for each field are as follows:

Analytical Chemistry
• 0.5 FCE in analytical chemistry in each of the areas of spectroscopy and separation science/electrochemistry, plus one other 0.5 FCE to support the research program. Students must also participate in the Analytical Chemistry seminar program.

Environmental Chemistry
• At least 2.0 FCE to include CHM 1401H, at least one other course in environmental chemistry (ENV 1410H, CHM 1415H, CHM 1425H, CHM 1550H), and 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. Presentation of two seminars
(normally in second and fourth years of study) and participation in the Environmental Chemistry seminar and colloquia program. A written research proposal, defended orally, on a topic other than the primary research topic delivered prior to the end of the second year of graduate study. Successful completion of an oral examination in the area of Environmental Chemistry, normally completed following course work and before the end of the second year of graduate study.

Inorganic Chemistry
• 2.0 FCE including one core half-course (either CHM 1261H or CHM 1270H that are offered in alternating years) plus the presentation of one seminar each year starting in their second year (to a total of three) in the Inorganic Chemistry seminar program including one on an original research proposal.

Organic and Biological Chemistry
• At least 2.0 FCE to include at least two Organic Chemistry graduate half-courses selected from CHM 1040H to CHM 1068H (inclusive). Students may take graduate courses from other chemistry fields or cognate departments. All students are expected to be at the level of the fourth year undergraduate courses offered in physical organic, synthetic organic, and biological chemistry, and if necessary the cross-listed Arts and Science courses may be taken. Courses will be selected in consultation with the supervisor and confirmed by the Graduate Studies Committee field representative. Students must also pass seven cumulative exams and present two seminars as a component of their participation in the Organic Chemistry seminar program (normally in the second and fourth years of study). Upon completion of course work and cumulative exams, students will take an oral exam in the area of Organic and Biological Chemistry.

Experimental Physical Chemistry
• 2.0 FCE 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. Attendance and participation in the Physical Chemistry seminar program are mandatory.

Theoretical Physical Chemistry
• 3.0 FCE, including two core half-courses. Specifics are to be determined by the research director and the student. Attendance and participation in the Physical Chemistry seminar program are mandatory.

Polymers and Materials Chemistry
• 2.0 FCE, to include at least two of the three core courses. A list of other courses considered appropriate to the Polymers and Materials Chemistry research area is available from the department. Presentation of at least two seminars (the first will be an independent research proposal, the second a presentation on research) and participation in the Polymers and Materials Chemistry seminar program. Successful performance in an oral examination in the area of Polymers and Materials Chemistry following the completion of course work.

Interdisciplinary PhD Program
• 2.0 FCE, including one core half-course from the above fields, and participation in one of the field seminar programs. Acceptance into this program requires a research topic of a truly interdisciplinary nature; a written request must be submitted to the graduate coordinator.

Depending upon the area of research, students may also be required to show an adequate ability to translate scientific text in one or two of the following languages: French, German, and Russian.

A student whose major subject is in another department may consult the Department of Chemistry regarding the selection of a minor in Chemistry.

Course List
Not all courses are offered every year. Please consult the Department each session as to course availability.

Analytical Chemistry
CHM 1102H Bionsensors and Chemical Sensors
CHM 1103H Advanced Topics in Analytical Chemistry
CHM 1104H Separation Science
CHM 1105H Separations, Chromatography, and Microfluidics
CHM 1106H Instrumentation for Chemists
CHM 1108H Mass Spectrometry Fundamentals and Instrumentation
CHM 1150H Advances in Electroanalytical Chemistry and Electrochemical Sensors
CHM 1152H Chemical Sensors
CHM 1157H Applications of Chemometrics
CHM 1190Y Analytical Chemistry Seminar (Credit/No Credit)
CHM 2014H Research in Analytical Chemistry
BME 1452H Signal Processing for Bioengineering
CHE 1144H Separation Processes
CHM 1401H Analytical Environmental Chemistry
PHY 1406H Microprocessor Interfacing Techniques

Environmental Chemistry
CHM 1401H Transport and Fate of Chemical Species in the Environment (core course)
CHM 1404H Molecular Analysis of Natural Systems
CHM 1415H Atmospheric Chemistry
CHM 1420H Environmental Chemistry of Soil
CHM 1425H Modelling the Fate of Organic Chemicals in The Environment
CHM 1430H Advanced Topics in Atmospheric Chemistry
CHM 1550H Topics in Environmental Chemistry
CHM 1580Y Environmental Chemistry Seminar (Credit/No Credit)
Inorganic Chemistry
CHM 1204H Organometallic Chemistry
CHM 1205H Inorganic Reaction Mechanisms
CHM 1206H Solid State Chemistry: Structure-Property Relations
CHM 1209H Structural Methods in Inorganic Chemistry
CHM 1258H Reactions of Coordinated Ligands
CHM 1261H Topics in Inorganic Chemistry I (core course)
CHM 1263H Bio-inorganic Chemistry
CHM 1268H X-Ray Crystallography
CHM 1269H Nanochemistry: A Chemistry Approach to Nanomaterials
CHM 1270H Frontiers in Inorganic Chemistry (core course)
CHM 1290Y Inorganic Chemistry Seminar (Credit/No Credit)
CHM 2034H Research in Inorganic Chemistry

Organic and Biological Chemistry
CHM 1003H Physical Organic Chemistry II
CHM 1004H Synthetic Organic Chemistry
CHM 1005H Applications of Spectroscopy in Organic Structure Determination
CHM 1006H Bioorganic Chemistry
CHM 1008H Biological Chemistry
CHM 1040H Modern Organic Synthesis
CHM 1045H Modern Physical Organic Chemistry
CHM 1054H Topics in Bioorganic Chemistry
CHM 1055Y Organic Chemistry Proposal Writing
CHM 1060H Advanced Topics in Synthetic Organic Chemistry
CHM 1068H Topics in Biological and Medicinal Chemistry
CHM 1090Y Organic Chemistry Seminar (Credit/No Credit)
CHM 2044H Research in Organic Chemistry
JRX 1124H Structured-Based Drug Design

Physical and Theoretical Chemistry
CHM 1441H Mathematical Methods
CHM 1442H Current Directions in Experimental Physical Chemistry
CHM 1443H Intermediate Quantum Mechanics
CHM 1444H Statistical Mechanics of Condensed Phases
CHM 1445H Coherent Control of Molecular Processes
CHM 1446H Quantum Computation and Information Theory
CHM 1447H Biophysical Chemistry
CHM 1448H Modelling of Biochemical Systems
CHM 1455H NMR Spectroscopy I: Introduction to Theory and Application
CHM 1456H NMR Spectroscopy II: Advanced Theory and Application
CHM 1458H Topics in Reaction Kinetics I
CHM 1464H Topics in Statistical Mechanics
CHM 1476H Modern Topics in Statistical Mechanics
CHM 1478H Quantum Mechanics for Physical Chemists (core course)
CHM 1479H Thermodynamics (core course)
CHM 1480H Basic Statistical Mechanics (core course)
CHM 1481H Reaction Kinetics and Dynamics (core course)
CHM 1483H Group Theory and Quantum Mechanics
CHM 1485H Molecular Dynamics and Chemical Dynamics in Liquids
CHM 1486H Modern Molecular Spectroscopy
CHM 1487H Modern Topics in Colloid Chemistry
CHM 1488H Advanced Experimental Methods in Physical Sciences
CHM 1490Y Physical Chemistry Seminar (Credit/No Credit)
CHM 2024H Research in Physical Chemistry

Polymers and Materials Chemistry
CHM 1301H Organic and Inorganic Polymer Synthesis (core course)
CHM 1302H Physical Chemistry of Polymers (core course)
CHM 1303H Solids as Advanced Polymer Materials
CHM 1310H Polymer Chemistry
CHM 1390Y Polymer and Materials Chemistry Seminar (Credit/No Credit)
CHM 2304H Research in Polymer and Materials Chemistry

Graduate Faculty
Full Members
Abbatt, Jonathan - BSc, PhD
Allen, Christine - BSc, PhD, PhD
Batey, Robert Alexander - BA, PhD
Bender, Timothy - PhD
Brumer, Paul - BSc, PhD
Chin, Jik - MS, PhD
Dhirani, Al-Amin - MSc, PhD
Donaldson, D. James - PhD (Associate Chair, Graduate Studies)
Dong, Vy - BCH, MC, DCHEM
Fekl, Ulrich - MSc, PhD
Fraser, Simon John - BA, PhD
Georges, Michael - BS, PhD
Goh, M Cynthia - PhD
Gunning, Patrick - BS, PhD
Jockusch, Rebecca - BA, PhD
Kanelis, Voula - PhD
Kapral, Raymond - BSc, PhD
Kay, Lewis - PhD
Kelley, Shana - BA, PhD
Kerman, Kagan - BScPhm, MSc, SCD
Kluger, Ronald - AB, AM, PhD
Krull, Ulrich - BSc, MSc, PhD
Kumacheva, Eugenia - MSc, PhD
Lautens, Mark - BSc, PhD
Mabury, Scott - BS, PhD
Macdonald, Peter - BS, MS, PhD
McMillen, David - BSc, MS, PhD
Miller, R J Dwayne - BSc, PhD
Morris, Robert - BSc, PhD (Interim Chair & Interim Graduate Chair)
Murphy, Jennifer - BCH, DCHEM
Nitz, Mark - BSc, PhD
Ozin, Geoffrey - BSc, PhD
Polanyi, John - MSc, PhD, DSc
Powell, John - BSc, PhD
Prosper, Scott - BSc, MSc, DPhil
Schofield, Jeremy - PhD, PhD
Scholes, Greg - MSc, PhD
Segal, Dvira - BSc, DSc
Shin, Jumi - AB, DPhil
Shoichet, Molly - PhD
Simpson, Andre - BSc, PhD
Simpson, Myrna - BS, DPhil
Song, Datong - BSc, PhD
Stephan, Douglas - BSc, PhD
Taylor, Mark - BSc, DSc
Thompson, Michael - BSc, PhD, DSc
Walker, Gilbert - BCH, PhD
Wania, Frank - MPH, PhD
Wheeler, Aaron - BS, PhD
Whittington, Stuart - BA, MA, PhD
Winnik, Mitchell - BA, PhD
Woolley, G Andrew - PhD
Yudin, Andrei - MSc, MSc, PhD
Zamble, Deborah - BSc, PhD

Members Emeriti
Bersohn, Malcolm - BSc, MS, PhD
Brook, Adrian - BA, PhD
Harrison, Alexander - MSc, PhD
Jones, J Bryan - BSc, PhD, DPhil
Kresge, Alexander - BA, PhD
McClelland, Robert - BSc, PhD
McLean, Stewart - BSc, PhD
Menzinger, Michael - MS, PhD
Poe, Anthony - DIC, BA, BSc, MA, MA, PhD
Tidwell, Thomas - BS, AM, PhD

Associate Members
Baranov, Vladimir - PhD
Reiner, Eric - BSc, MSc, PhD
Tanner, Scott - BSc, PhD
Cinema Studies

Faculty Affiliation
Arts and Science

Degree Programs Offered
Cinema Studies – MA

Overview
The Cinema Studies Institute offers a program leading to the Master of Arts degree in Cinema Studies. Our faculty have expertise in several areas, including film history, film theory, and film and culture.

Contact and Address
Web: www.utoronto.ca/cinema
E-mail: 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

Degree Programs
Cinema Studies

Master of Arts

Minimum Admission Requirements
• 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 courses.
• Successful completion of a minimum of 6.0 full-course equivalents (FCE) 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, and an academic writing sample of no more than 3,000 words.

Program Requirements
• The MA is a course-work only program and therefore does not require a thesis.
• 4.0 FCEs over the course of an academic year, normally extending from September until August. Of the 4.0 FCEs:
  o 1.5 FCEs will be mandatory, core courses under the CIN rubric.
  o 1.0 FCE will be devoted to either the writing of a major research paper or pursuing an internship. The internship option also entails writing a paper based on the learning or research experience gained from the internship.
  o 1.5 FCEs may be completed in the following way: 0.5 to 1.0 may be 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); the remaining 0.5 to 1.0 may be chosen from film-based courses offered by other units (non-CIN designator) but approved as relevant to the Cinema Studies master's program curriculum.
• All students complete CIN 1000H, CIN 1001H, and CIN 1002H.
• Additional requirements for students choosing the major research paper option:
  o CIN 1006Y
  o 0.5 to 1.0 FCE derived from elective CIN courses
  o 0.5 to 1.0 FCE derived from approved graduate-level courses offered outside CIN.
• Additional requirements for students choosing the internship option:
  o CIN 1007Y
  o 0.5 to 1.0 FCE derived from elective CIN courses
  o 0.5 to 1.0 FCE derived from approved graduate-level courses offered outside CIN.

Elective Courses (subject to change)
CIN 1003H Women’s Cinema and Women’s Film Festivals
CIN 1004H Models of Film Analysis
CIN 1425H British Social Realism and Cinema
CIN 1515H The Emergence of Mass Culture: Movies, Vaudeville and Public Amusements in Turn-of-the-Century America
CIN 1539H Film Comedy and Popular Culture
CIN 1772H The Politics of Non-Fiction Film
CIN 5968H Actuality, Documentary, Reality
CIN 6153H Race and Cinema
CIN 6156H  Dark Passages: Film and the Geometry of Racial Imagination
CIN 6197H  Eyes Looking, Lips Moving: Theories of Viewing Subject
CIN 6803H  Intertextuality in Feminist Cinema: The Counter-Cinematic Impulse
CIN 6817H  Text, Context, Intertext: The Touch of Evil Project

Graduate Faculty

**Full Members**
Aramago, Kay - BA, MA, PhD *(Coordinator of Graduate Studies)*
Fenner, Angelica - BA, MA, PhD
Keil, Charles - BA, MA, PhD *(Director)*
King, Robert - AB, MA, PhD

**Associate Members**
Columpar, Corinn - BA, PhD
Sammond, Nicholas - BA, MA, PhD
Testa, Bart - BA, MA
Civil Engineering

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Civil Engineering – MASc, MEng, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Environmental Engineering
   • Civil Engineering, MEng, MASc, PhD

Overview
The Department of Civil Engineering offers graduate programs leading to the Master of Applied Science, the Master of Engineering, and the Doctor of Philosophy. Qualified students are accepted for advanced studies in one of the following fields: building engineering, environmental engineering, structural engineering, transportation engineering, and engineering geoscience.

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.

Contact and Address
Admission
Web: www.civil.engineering.utoronto.ca
E-mail: graduateadmissions@civ.utoronto.ca
Telephone: (416) 978-5905
Fax: (416) 978-6813

Program
Web: www.civil.engineering.utoronto.ca
E-mail: graduateprograms@civ.utoronto.ca
Telephone: (416) 978-5904
Fax: (416) 978-6813

Department of Civil Engineering
University of Toronto
Galbraith Building
35 St. George Street
Toronto, Ontario M5S 1A4
Canada
Program Requirements

- A major and 2 minor fields of study, normally consisting of a minimum of 4.5 FCE (nine half-courses) in total beyond the bachelor's degree. More FCE may be required depending on the student's background preparation. It is normally expected that at least one of the minor fields will be taken outside of the Department.
- PhD students with a MASc degree (or equivalent in the same field) must take a minimum of 2.0 FCE (four half-courses) beyond the MASc degree.
- Students enrolled in the MASc degree program who transfer to the PhD program without submitting a MASc thesis must complete a total of 4.5 FCE (nine half-courses) beyond the bachelor's degree program.
- Students with a MEng degree may use up to 3.0 FCE (six graduate half-courses) from the MEng program towards the PhD course requirements.
- Comprehensive examination after completing most of the course work 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 Examination and Degree Committee.
- 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 Examination and Degree Committee during the student's first session.
- Supervisors are required to establish a supervisory committee for their PhD students by the end of the second year of the student's program. This committee must include the supervisor and at least two graduate faculty members. Membership approval is not required.

Course List

Not all courses are given every year. Some courses may require a prerequisite. Please consult the Department.

General Interest

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CIV 1001H</td>
<td>M.Eng. Project I</td>
</tr>
<tr>
<td>CIV 1002Y</td>
<td>M.Eng. Project II</td>
</tr>
<tr>
<td>CIV 1099H</td>
<td>Special Studies in Civil Engineering</td>
</tr>
<tr>
<td>CIV 1307H</td>
<td>Evaluating the Sustainability of Engineering Activities</td>
</tr>
<tr>
<td>CIV 1310H</td>
<td>Infrastructure Economics</td>
</tr>
<tr>
<td>CIV 1337H</td>
<td>Simulation in Civil Engineering</td>
</tr>
<tr>
<td>CIV 1504H</td>
<td>Applied Probability and Statistics for Civil Engineering</td>
</tr>
<tr>
<td>CIV 1539H</td>
<td>Evaluation of Civil Engineering Systems</td>
</tr>
<tr>
<td>CIV 1600H</td>
<td>Readings in Technology and Modern Society I</td>
</tr>
<tr>
<td>CIV 1601H</td>
<td>Readings in Technology and Modern Society II</td>
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</table>

Building Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>CIV 514H</td>
<td>Concrete Technology</td>
</tr>
<tr>
<td>CIV 575H</td>
<td>Building Science</td>
</tr>
<tr>
<td>CIV 1201H</td>
<td>Concrete Technology and Non-Destructive Testing Principles</td>
</tr>
<tr>
<td>CIV 1250H</td>
<td>Instrumentation Techniques in Concrete Technology</td>
</tr>
<tr>
<td>CIV 1252H</td>
<td>Repair and Maintenance of Concrete Structures</td>
</tr>
<tr>
<td>CIV 1277H</td>
<td>Construction Estimating and Finance</td>
</tr>
<tr>
<td>CIV 1278H</td>
<td>Pre-Project Planning and Constructability Analysis</td>
</tr>
<tr>
<td>CIV 1279H</td>
<td>Construction Contract Documents</td>
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<tr>
<td>CIV 1280H</td>
<td>Building Envelope Design</td>
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<tr>
<td>CIV 1281H</td>
<td>Management of Building Projects</td>
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<tr>
<td>CIV 1282H</td>
<td>Case Studies in Building Science</td>
</tr>
<tr>
<td>CIV 1283H</td>
<td>Civil Informatics</td>
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<tr>
<td>CIV 1299H</td>
<td>Special Studies in Civil Engineering</td>
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Environmental Engineering

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<th>Course Code</th>
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<tbody>
<tr>
<td>CIV 540H</td>
<td>Treatment Processes</td>
</tr>
<tr>
<td>CIV 549H</td>
<td>Groundwater Flow and Contamination</td>
</tr>
<tr>
<td>CIV 550H</td>
<td>Water Resources Engineering</td>
</tr>
<tr>
<td>CIV 1303H</td>
<td>Water Resources Systems Modelling</td>
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<tr>
<td>CIV 1305H</td>
<td>Water Resources Systems Analysis</td>
</tr>
<tr>
<td>CIV 1308H</td>
<td>Physical and Chemical Treatment Processes</td>
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<tr>
<td>CIV 1309H</td>
<td>Biological Treatment Processes</td>
</tr>
<tr>
<td>CIV 1319H</td>
<td>Chemistry and Analysis of Water and Wastes</td>
</tr>
<tr>
<td>CIV 1335H</td>
<td>Advanced Hydrogeology</td>
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<tr>
<td>CIV 1399H</td>
<td>Special Studies in Civil Engineering</td>
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Geoscience

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<tr>
<td>CIV 523H</td>
<td>Geotechnical Design</td>
</tr>
<tr>
<td>CIV 529H</td>
<td>Rock Engineering</td>
</tr>
<tr>
<td>CIV 1404H</td>
<td>Material Fracture Dynamics: Experimental Methods</td>
</tr>
<tr>
<td>CIV 1410H</td>
<td>Satellite Positioning and Remote Sensing</td>
</tr>
<tr>
<td>CIV 1419H</td>
<td>Rock Dynamics</td>
</tr>
<tr>
<td>CIV 1420H</td>
<td>Soil Properties and Behaviour</td>
</tr>
<tr>
<td>CIV 1421H</td>
<td>Continuum Mechanics of Fluids and Solids</td>
</tr>
<tr>
<td>CIV 1446H</td>
<td>Slopes and Earthworks</td>
</tr>
<tr>
<td>CIV 1499H</td>
<td>Special Studies in Civil Engineering</td>
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</tbody>
</table>

Structural Engineering

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<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CIV 510H</td>
<td>Solid Mechanics II</td>
</tr>
<tr>
<td>CIV 513H</td>
<td>Collaborative Engineering and Architectural Design Studio</td>
</tr>
<tr>
<td>CIV 517H</td>
<td>Prestressed Concrete Structures</td>
</tr>
<tr>
<td>CIV 518H</td>
<td>Behaviour and Design of Steel Structures</td>
</tr>
<tr>
<td>CIV 519H</td>
<td>Structural Analysis II</td>
</tr>
<tr>
<td>CIV 1163H</td>
<td>Mechanics of Reinforced Concrete</td>
</tr>
<tr>
<td>CIV 1164H</td>
<td>Bridge Engineering</td>
</tr>
<tr>
<td>CIV 1169H</td>
<td>Advanced Topics in Building Design</td>
</tr>
<tr>
<td>CIV 1167H</td>
<td>Structural Dynamics and Earthquake Engineering</td>
</tr>
</tbody>
</table>
Degree Programs by Graduate Unit

CIV 1174H  Finite Element Methods in Structural Mechanics
CIV 1175H  Design of Tubular Steel Structures
CIV 1199H  Special Studies in Civil Engineering
CIV 1361H  Reinforced and Prestressed Concrete Structures

Transportation Engineering and Planning
CIV 531H  Transport III—Planning
CIV 533H  Transport Operations
CIV 1505H  Transportation Research Seminar
CIV 1506H  Freight Transportation and ITS Applications
CIV 1507H  Public Transport
CIV 1508H  Airport Planning and Engineering
CIV 1535H  Transportation and Development
CIV 1532H  Fundamentals of ITS and Traffic Management
CIV 1538H  Transportation Demand Analysis
CIV 1540H  Urban Transportation Networks
CIV 1599H  Special Studies in Civil Engineering

Graduate Faculty

Full Members
Abdulhai, Baher - BEng, MEng, PhD
Adams, Barry - BSc, MS, PhD
Andrews, Robert - BASc, MASc, PhD
Andrews, Susan - BSc, MSc, PhD
Bawden, William - BSc, MSc, PhD
Bentz, Evan - BASc, PhD
Byer, Philip - BS, MS, PhD
Christopoulos, Constanttin - BE, MASc, PhD
Collins, Michael - BE, PhD
Crawford, Adrian - BE, MASc, PhD
El-Diraby, Tamer - PhD
Fotopoulos, Georgia - BSc, MSc, PhD
Gauvreau, Douglas Paul - BSc, MSc, PhD
Grabinsky, Murray - BASc, MASc, PhD
Grassielli, Giovanni - PhD
Hadjigeorgiou, Ioannis (John) - DIPLGEO, BASc, ME, DPhil
Hofmann, Ronald - BEng, MASc, PhD
Hooton, R Douglas - BASc, MASc, PhD
Karney, Bryan - BSc, MEng, PhD
Kennedy, Christopher - BEng, MEC, MBA, MASc, PhD
MacLean, Heather - BASc, MASc, MBA, PhD
McCabe, Brenda - BSc, PhD (Chair & Graduate Chair)
Miller, Eric - BASc, MASc, PhD
Packer, Jeffrey - BE, MSc, DSc, PhD (Associate Chair, Graduate Studies)
Panesar, Daman - BE, ME, PhD
Pressnail, Kim - BASc, PhD
Roorda, Matthew - BEng, MASc, PhD
Shalaby, Amer - BSc, MASc, PhD
Sheikh, Shamim - BSE, MASc, PhD
Sleep, Brent - BSc, MASc, PhD
Vanderburg, Willem - BASc, MASc, PhD
Vecchio, Frank - BASc, MEng, PhD

Members Emeriti
Birkemoe, Peter - BS, MSc, PhD
Curran, John - BASc, MEng, PhD
Ganczarczyk, Jerzy - MSc, DSc, DRHAB
Hauer, Ezra - BSc, MSc, PhD
Hurdle, Vanolin - BS, MEng, PhD
Mohanty, Bibhuti - BSc, MA, MTech, PhD
Selby, Kenneth - BSc, MBA, PhD
Soberman, Richard - BSc, SM, PhD
Steuart, Gerald - BSc, MSc, PhD
Timusk, John - BASc, MASc, PhD
Will, George - BASc, MASc

Associate Members
Bagley, David - BS, MS, PhD
Haider, Murtaza - MASc, PhD
Joshi, Satish - DiplIng, BTech, PhD
Keith, David - BSc, PhD
Liss, Steven - BSc, MSc, PhD
Salvini, Paul - BM, MASc, MBA, PhD
Seica, Michael - DiplIng, PhD
Classics

Faculty Affiliation
Arts and Science

Degree Programs Offered
Classics – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Ancient and Medieval Philosophy
   • Classics, PhD
2. Ancient Greek and Roman History
   • Classics, PhD
3. Editing Medieval Texts
   • Classics, PhD
4. Sexual Diversity Studies
   • Classics, MA, PhD
5. Women and Gender Studies
   • Classics, MA, PhD

Overview
The Department of Classics provides advanced training leading to the Master of Arts and Doctor of Philosophy degrees in Classics, in a wide range of fields: Ancient (Greek & Roman) Philosophy & Science, Greek & Latin Literature, and Greek & Roman History. Collaborative Programs, listed above, are available to students enrolled in the specified participating degree programs. In addition, the Joint Collaborative Program in Ancient Greek and Roman History (see separate entry in this calendar) provides for interdisciplinary study with faculty from the Graduate Program in History at York University.

Information about admission, application procedures and funding is available from the Department.

Contact and Address
Web: www.chass.utoronto.ca/classics/
E-mail: grad.classics@utoronto.ca
Telephone: (416) 978-5513
Fax: (416) 978-7307

Department of Classics
University of Toronto
125 Queen's Park
Toronto, Ontario M5S 2C7
Canada

Degree Programs

Classics

Master of Arts

Minimum Admission Requirements
• Successful completion of an undergraduate program in Classics with a B+ average in the final year and the equivalent of at least three and preferably four full years of training in each of Latin and Greek.
• Applicants may be admitted to either the one-year or the two-year MA program, depending on their level of preparation.
• Students who are otherwise qualified but who lack the required amount of training in Greek and Latin should consult with the Department about further preparation.

Program Requirements
Depending on their prior preparation, students complete the MA program in either one year or two years. All students must satisfy the following requirements:
• Satisfactory completion of the required courses in Greek and Latin Literature (GRK 2000H, GRK 2100H, LAT 2000H, LAT 2100H). Students may also be required to take advanced language courses in Greek and Latin (GRK 1000H and LAT 1000H).
These courses are graded on a credit/no credit basis.
• Completion of the MA examinations with at least B- in each component:
  o Sight translation examination in Greek
  o Sight translation examination in Latin
  o Reading list examination in Greek Prose
  o Reading list examination in Greek Verse
  o Reading list examination in Latin Prose
  o Reading list examination in Latin Verse
• The MA Special Essay: Each student is assigned to a faculty advisor for CLA 2000H, the MA special essay, and works independently on the preparation of a research paper (about 8000 words in length). The special essay is assessed by a committee of two faculty members, including the advisor, and must receive a grade of B or better.

Two-year Master of Arts
• Year 1 - GRK 1000H and LAT 1000H (intensive advanced language skills) and a selection of other courses approved by the Department. Students may be exempted from either 1000H course if they have satisfactorily completed comparable work in their undergraduate program. A standing of at least B+ must be earned in each undergraduate course. 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 - 2.0 FCE (four half-courses): Classics of Greek Literature (GRK 2000H, GRK 2100H) and Classics of Latin Literature (LAT 2000H, LAT 2100H).
• Satisfactory completion of the MA Examination cycle with at least a B- grade on each component.
• Completion of an acceptable MA Special Essay, with a grade of at least B.

One-year Master of Arts
• 2.0 FCE (four half-courses): Classics of Greek Literature (GRK 2000H, GRK 2100H) and Classics of Latin Literature (LAT 2000H, LAT 2100H).
• Students may be required to take GRK 1000H and/or or LAT 1000H to help them prepare for the MA examinations.
• Satisfactory completion of the MA Examination cycle with at least a B- grade on each component.
• Completion of an acceptable MA Special Essay, with a grade of at least B.

Doctor of Philosophy

Minimum Admission Requirements
• Standard conditions - successful completion of either a strong undergraduate program in Classics (with at least an A- average in the final year), or a strong MA program in Classics (with at least a B+ average overall and at least one A-). All students must have the equivalent of at least four years of training in each of Latin and Greek and a broad preparation in the reading of ancient texts in the original languages.
• Advanced standing - applicants may be admitted with advanced standing if they have completed the revised MA program at the University of Toronto (having graduated in the year 2000 or later) with grades of at least B+ in all components, and a grade of at least A- on the Special Essay. Applicants must have reading knowledge of one of the modern languages required for the PhD.

Program Requirements
Students admitted under the standard conditions described above must:
• satisfactorily complete required courses (GRK 1000H, GRK 2000H, GRK 2100H and LAT 1000H, LAT 2000H, LAT 2100H). In exceptional circumstances and at the Department’s discretion, students who require additional preparation for the reading lists may be required to take a selection of courses approved by the Department during their first year 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.
• For students in the PhD program, the MA Examination Cycle and the MA Special Essay are referred to as the Qualifying Examinations and Qualifying Essay. PhD students must pass all components of these examinations with grades of at least B+ and earn a grade of at least A- on the essay.
• Doctoral students who complete the Qualifying Examinations and Essay at a lower standard which nevertheless satisfies the MA requirement will be granted the MA. However, they may be required either to withdraw from the doctoral program or to retake examinations. Students admitted with advanced standing are exempt from the Qualifying Examinations and Qualifying Essay.

Whether admitted under standard conditions or with advanced standing, all doctoral students must:
• Demonstrate adequate reading knowledge of two languages of research, other than English, one of which will normally be German. By the end of year one, students are expected to have passed one modern language examination. By the end of year two, students should have completed the other modern language examination.
• In the second year (first year for students admitted with advanced standing) students take CLA 3000H Research Techniques in Classics and at least three of the required total of five research seminars.
• Minor field (CLA 3500H°). The minor field is established at the end of second year (first year for students admitted with advanced standing) and must be clearly distinct from the major field. The field is prepared under the supervision of two faculty advisors. The examination in the minor field is conducted by a committee composed of the two faculty advisors and the graduate coordinator.
• Major field (CLA 4000Y°). The major field defines a broad area within which the dissertation topic falls. It is normally established by the third year of the program (second year for students admitted with advanced standing) and is directed by the supervisory committee. Preparation for the examination includes the completion of a satisfactory research essay. The 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.
• By the end of the third year (second year for students admitted with advanced standing) students should have completed their minor field examination and the rest of their required research seminars.
• The major field examination should be completed by the middle of fourth year (third year for students admitted with advanced standing).
• The dissertation should be completed by the end of the fifth year (fourth year for students admitted with advanced standing).

Course List
GRK 1000H Advanced Studies in Greek Language  
(Credit/No Credit)
GRK 2000H Classics of Greek Verse (Credit/No Credit)
GRK 2100H Classics of Greek Prose (Credit/No Credit)

° Courses which may continue over a program. The course is graded when completed.
GRK 2500Y* Greek Verse Exam  
GRK 2501Y* Greek Prose Exam  
GRK 2505Y* Greek Sight Exam  
LAT 1000H Advanced Studies in Latin Language  
(Credit/No Credit)  
LAT 2000H Classics of Latin Verse (Credit/No Credit)  
LAT 2100H Classics of Latin Prose (Credit/No Credit)  
LAT 2501Y* Latin Prose Exam  
LAT 2505Y* Latin Sight Exam  
CLA 2000H MA Special Essay  
CLA 3000H Research Techniques in Classics  
CLA 3020H Research Methods in Ancient History  
CLA 3200Y Work in Progress in Ancient History  
CLA 3500H* Minor Field  
CLA 4000Y* Major Field  

Research Seminars  
The following courses are open to students in other departments with the permission of the instructor and the Department. See the departmental brochure or Web site for language requirements. Not all courses are offered every year. See the departmental brochure or Web site for offerings in the current year.

CLA 5000H Early Greek Epic  
CLA 5001H Early Greek Poetry  
CLA 5002H Studies in Greek Drama I  
CLA 5003H Studies in Greek Drama II  
CLA 5004H Studies in Greek Poetry  
CLA 5007H Criticism of Latin Poetry  
CLA 5008H Roman Comedy  
CLA 5009H Literature of the Roman Republic  
CLA 5010H Virgil  
CLA 5011H Satire and Satirical Writing  
CLA 5012H Studies in Ancient Philosophy I  
CLA 5013H Studies in Ancient Science  
CLA 5014H The Ancient Novel  
CLA 5015H Latin Poetry of the Empire  
CLA 5016H Topics in Greek and Hellenistic History  
CLA 5017H Latin Legal Texts and the History of Late Roman Institutions  
CLA 5018H Topics in Roman History  
CLA 5019H Topics in Later Roman History  
CLA 5020H Studies in Ancient Philosophy II  
CLA 5021H Topics in the Study of Greek and Hellenistic Literature and Culture  
CLA 5022H Topics in the Study of Greek and Hellenistic Society  
CLA 5023H Topics in the Study of Roman Literature and Culture  
CLA 5024H Topics in the Study of Roman Society  
CLA 5025H Topics in Greek and Hellenistic History II  
CLA 5026H Topics in Graeco-Roman Historiography I  
CLA 5027H Topics in Graeco-Roman Historiography II  
CLA 5028H Topics in Graeco-Roman History I  
CLA 5029H Topics in Graeco-Roman History II  

*Courses which may continue over a program. The course is graded when completed.

JMT 1000H Andronicus of Rhodes and the Early Peripatos  
JMT 1001H Topics in Ancient Philosophical Commentators  
JMT 1002H Augustine: Soliloquia  

Directed Reading  
CLA 1300Y Studies in Classical Antiquity  
CLA 1301H Studies in Classical Antiquity  
CLA 1302Y Studies in Classical Antiquity  
CLA 1303H Studies in Classical Antiquity  
CLA 1306H Studies in Greek Literature I  
CLA 1307H Studies in Greek Literature II  
CLA 1308H Studies in Latin Literature I  
CLA 1309H Studies in Latin Literature II  

Graduate Faculty  

Full Members  
Barney, Rachel - BA, PhD  
Bruun, Christer - BA, MA, PhD  
Burgess, Jonathan - BA, MA, PhD  
Dewar, Michael - BA, MA, DPhil  
Fantham, Rosamund - BA, MA, PhD  
Gunderson, Erik - BA, MA, PhD  
Inwood, Brad - BA, MA, PhD  
Jones, Alexander - BA, PhD  
Keith, Alison - BA, MA, PhD  (Chair & Graduate Chair)  
Magee, John - BA, MA, PhD  
Mason, Hugh - BA, AM, PhD  
Revermann, Martin - PhD  
Rubincam, Catherine - BA, BA, PhD  
Wohl, Victoria - BA, MA, PhD  (Coordinator of Graduate Studies)  

Members Emeriti  
Barnes, Timothy - BA, MA, DPhil  
Beck, Roger - BA, MA, PhD  
Grant, John - BA, MA, PhD  
Irwin, Marjorie - BA, PhD, PhD  
McDonough, Christopher - BA, MA, PhD  
Rist, John - MA  
Robbins, Emmet - BA, PhD  
Traill, John - BA, MA, PhD  
Wallace, Malcolm - BA, MA, PhD  

Associate Members  
Akrigg, Benjamin - BA, PhD  
Bendlin, Andreas - PhD  
Cottier, Michel - BA, DPhil  
Edmondson, Jonathan - PhD  
Hoeschele, Regina - MA, PhD  
Lytle, Thomas - BA, PhD  
Nakassis, Dimitri - BA, MA, PhD
Comparative Literature

Faculty Affiliation
Arts and Science

Degree Programs
Comparative Literature – MA, PhD

Overview
Applicants interested in graduate study at the Centre for Comparative Literature at the University of Toronto should consult the Centre’s Web site www.chass.utoronto.ca/complit. It provides updated information about requirements, graduate programs, course offerings, and academic profiles of graduate faculty.

The Centre offers Master of Arts and Doctor of Philosophy degree programs to students qualified to pursue literary studies involving several languages. If the language and other requirements of the Centre are satisfied, students may pursue theoretical issues that cross traditional disciplines.

Admissions are selective; therefore, applicants with the minimum qualifications cannot be guaranteed admission.

Applicants, including those from the University of Toronto, must arrange for recommendations from two referees; must submit a statement of purpose not exceeding 500 words; and must submit a sample of written work, preferably a short essay on a literary topic. Admission to all programs for higher degrees will be based upon the applicant’s undergraduate and graduate records and upon the evidence of the references and statement. The deadline for receiving applications to both the MA and PhD programs is February 1.

All incoming students will meet with the Graduate Coordinator to discuss their program and to decide on their course of study before beginning classes.

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

1. Book History and Print Culture
   • Comparative Literature, MA, PhD
2. Jewish Studies
   • Comparative Literature, MA
3. Women and Gender Studies
   • Comparative Literature, MA, PhD

Contact and Address
Web: www.chass.utoronto.ca/complit
E-mail: complit@chass.utoronto.ca
Telephone: (416) 813-4041
Fax: (416) 813-4040

Centre for Comparative Literature
University of Toronto
Isabel Bader Theatre
Third Floor
93 Charles Street West
Toronto, Ontario M5S 1K9
Canada

Degree Programs
Comparative Literature

Master of Arts

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.
• Four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, that includes courses in literature and languages with an average grade of at least B+ in the applicant's overall program.
• Demonstrated experience in the study of two literatures at the undergraduate level and an ability to work at the graduate level in at least one language other than English.
• Students may be admitted to either a one-year or a two-year degree depending upon their academic background. Those who have sufficient training in at least two literatures in the original languages may be admitted to a one-year program.
• All applicants must register as full-time students.

Program Requirements
• Students admitted to the one-year program must complete at least 4 full-course equivalents (FCE) including at least 2.5 FCE in COL courses, one of which must be COL 1000H.
• Students admitted to the two-year program must complete at least 6.0 FCE including at least 3.5 FCE in COL courses, one of which must be COL 1000H.
• 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.

Courses which may continue over a program. The course is graded when completed.
A plan of study defined by each MA student through consultation with the graduate coordinator 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.

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.

**Doctor of Philosophy**

**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.
- University of Toronto master’s degree, or its equivalent, from a recognized university, with an average grade of at least A-. Normally, the master’s degree will be in Comparative Literature; however, students with a master’s degree in a humanities discipline involving literary studies, especially specific language and literature programs, will also be considered.
- Demonstrated ability to do advanced research in two languages and literatures other than English.
- A plan of study defined by each student as part of the application for admission to the PhD program in Comparative Literature should be completed in four years.
- A full-time student must be physically 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. Ideally, the PhD program in Comparative Literature should be completed in four years.

**Program Requirements**

- A student with an MA in Comparative Literature, or its equivalent, must take at least 5.0 full-course equivalents (FCE), of which 3.0 FCE 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 up to 8.0 FCE, of which at least 4.0 FCE 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/Coordinator of Graduate Studies.
- Students define the scope and approach of their plan of study in consultation with the Graduate Coordinator and other faculty. During the first two years of the program, students complete course work, language requirements, and prepare for the field examination. Course work 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 the second year of PhD study. The field examination is taken no later than the end of the first session of the third year.
- The Centre for Comparative Literature is not obligated to provide supervision in areas which fall outside the competency, interests, or availability of its graduate faculty.
- Students must demonstrate an ability to work at the graduate level in two languages and literatures other than English. An adequate reading knowledge of a third language other than English must be demonstrated before taking the field examination. Certification of graduate level competence and reading knowledge is given to all students who qualify.
- Students are expected to achieve a thorough command of at least two literatures and must do work at the graduate level in another literature. This means that students must include courses in three literatures in their program or show evidence of extensive independent research under the supervision of members of the graduate faculty. Students who intend to specialize in comparative French-Canadian and English-Canadian literature may fulfill their other literature requirements through graduate-level work in continental French and British literature.
- 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.
- All PhD students are required to enrol in COL 4000Y, a credit/non-credit course, in addition to the agreed upon number of FCEs in their individual program. Normally students enrol in COL 4000Y after completing their course work. The course has no specific content, but it recognizes the work done in preparation for the field examination.
- 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.
- 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. Ideally, the PhD program in Comparative Literature should be completed in four years.

**Course List**

Students should consult the Comparative Literature handbook as well as the handbooks of other departments for courses that may be taken for credit. Information about course availability is also contained in the handbooks.
Core Program
COL 1000H Faculty Seminar: Theories of Literature and Criticism
COL 5027H Memory, Trauma, and History
COL 5029H Reading Cervantes
COL 5047Y The Two Avant-Gardes
COL 5055Y How to Slam the Door - Intercultural approaches to Ibsen
COL 5056H Autobiography, Photography, Narrativity
COL 5059H Nature and Civilization in the New World
COL 5064H Medieval Literary Theory
COL 5077H Representation of the State: Corruption and Justice in Chinese Popular Media
COL 5078H Construals of the Self: Autobiography in Africa and the Diaspora
COL 5079H Lacan and Psychoanalytic Thought
COL 5081H Benjamin's Arcades Project
COL 5082H Postcolonial Literature and the World on Paper
COL 5083Y Redefining Security Through Art
JLA 1456H Japan as Seen by?: Reference, Apparatus, Operation

Associate Members
Akbari, Suzanne - BA, MA, MPH, PhD
Barnes, Christopher - BA, MA, PhD
Blackmore, Josiah - PhD
Brown, Russell - BA, MA, PhD
Capozzi, Rocco - BA, MA, PhD
Clark, Cary - BMus, MA, PhD
Cozea, Angela - BA, MA, PhD
Goetschel, Willi - PhD
Guenther, Sebastian - MA, PhD
Hewitt, Marsha - BA, MA, PhD
Inwood, Brad - BA, MA, PhD
Jackson, Heather - BA, MA, PhD
Keith, Alison - BA, MA, PhD
Kippen, James - BA, PhD
Legge, Elizabeth Mm - BA, MA, PhD
Leonard, Garry - BA, MA, PhD
Marker, Frederick - AB, DFA
Matus, Jill - BA, MA, PhD
Motsch, Andreas - PhD
Noyes, John - BA, MA, PhD
Paterson, Janet - BA, MA, PhD
Patrick, Julian - PhD
Perron, Paul - PhD
Pietropaolo, Domenico - BSc, MA, PhD
Pugliese, Olga - BA, MA, PhD
Sakaki, Atsuko - PhD
Sarabia, Rosa - BA, PhD
Somigli, Luca - PhD
Sternberg, Ricardo - BA, MA, PhD
Trojanowska, Tamara - MA, PhD
Xie, Ming - PhD

Graduate Faculty

Full Members
Ambros, Veronika - MA, PhD
Bai, Ruoyun - BA, MA, PhD
Budde, Antje - PhD
Cazdyn, Eric - BA, MA, PhD
Chamberlin, J Edward - BA, PhD
Comay, Rebecca - BA, MA, PhD
Esonwanne, Uzoma - BA, MA, PhD
Fleming, John - BA, MA, PhD (Coordinator of Graduate Studies)
Havercroft, Barbara - BA, MA, PhD
Hutcheon, Linda - BA, MA, PhD
Jagoe, Eva-Lynn - BA, MA, PhD
Kleber, Pia - BA, MA, MA, PhD
Komaromi, Ann - MA, DPhil
Lahusen, Thomas - MA, PhD
Le Huenen, Roland - DESL (Director)
LeBlanc, Julie - BA, PhD
Li, Victor - BA, MA, PhD
Meng, Yue - BA, MA, PhD
Ross, Jill - MA, PhD
Rupp, Stephen - BA, MA, MPH, MA, PhD
Zilcosky, John - BA, MA, MA, PhD

Members Emeriti
Bisztray, George - PhD
Davis, Natalie - BA, MA, PhD
Dolezel, Lubomir - BA, PhD
Desseloth, Peter - BA, MA, PhD
Percival, Anthony - BA, MA, PhD
Stock, Brian - AB, PhD
Valdes, Mario - BA, MA, PhD

Comparative Literature
Computer Science

Faculty Affiliation
Arts and Science

Degree Programs Offered
Computer Science – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Genome Biology and Bioinformatics
   • Computer Science, PhD
2. Knowledge Media Design
   • Computer Science, MSc, PhD

Overview
The Department of Computer Science offers a graduate program leading to two degrees: Master of Science and Doctor of Philosophy. The graduate program consists of courses and research. Research is conducted under the supervision of a faculty member.

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, financial computation, data structures, algorithm design and analysis, computational complexity, cryptography, combinatorics, graph theory, artificial intelligence, neural networks, knowledge representation, computational linguistics, 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, also available at www.cs.utoronto.ca/DCS/Grad/index.html.

Contact and Address
Web: www.cs.toronto.edu
Email: gradprograms@cs.toronto.edu
Telephone: (416) 978-8762
Fax: (416) 946-7132

Department of Computer Science
Graduate Office
University of Toronto
Room 4242, Bahen Centre for Information Technology
40 St. George Street
Toronto, Ontario M5S 2E4
Canada

Degree Programs

Computer Science

Master of Science

Minimum Admission Requirements
• Successful completion of an undergraduate degree equivalent to a four-year program at the University of Toronto with a standing equivalent to at least B+.
• Preference given to applicants who have studied computer science or a closely related discipline.

Program Requirements
• 1.5 to 2.5 graduate full-course equivalents (FCE) in computer science. The courses must satisfy a breadth requirement to ensure a broad and well-balanced knowledge of computer science. The number of FCE required will be determined in consultation with the supervisor and the graduate coordinator.
• A major research paper (2.0 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.
• This degree is offered on either a full-time or part-time basis.

Doctor of Philosophy

Minimum Admission Requirements
• Successful completion of a master’s degree with a standing equivalent to at least 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 TOEFL score of at least 580 on the paper-based test and 4 on the TWE; 237 on the computer-based test and 4 on the essay rating component; 93/120 on the internet-based test and 22/30 on the writing and speaking sections.
Program Requirements
- Students entering the PhD program with a computer science master’s degree will require 1.5 to 3.0 full-course equivalents (FCE) and a thesis. Other students will require 3.0 to 4.5 FCE and a thesis. The number of courses required will be determined in consultation with the supervisor and the graduate coordinator. The courses must satisfy a breadth requirement to ensure a broad and well-balanced knowledge of computer science.
- The most important part of doctoral work is original research conducted under the direction of a faculty member. This research must constitute a significant and original contribution to computer science. The results must be presented in a thesis and defended at department and graduate school oral examinations.

Course List

Programming Languages and Methodology
CSC 2104H Formal Methods of Program Design
CSC 2106H Requirements Engineering
CSC 2107H Compilers and Interpreters
CSC 2108H Automated Verification
CSC 2122H Language and Compiler Design
CSC 2123H Managing the Software Organization
CSC 2124H Topics in Programming Languages
CSC 2125H Algorithmic Program Verification
CSC 2130H Empirical Research Methods in Software Engineering

Computer Systems: Hardware and Software
CSC 2204H Operating Systems
CSC 2205H Performance in Distributed Operating Systems
CSC 2206H Computer Systems Modelling
CSC 2207H Topics in Computer Organization
CSC 2208H Advanced Operating Systems
CSC 2209H Computer Networks
CSC 2221H Introduction to Distributed Computing
CSC 2225H Structure and Correctness in Operating Systems
CSC 2227H Topics in the Design and Implementation of Operating Systems
CSC 2228H Topics in Mobile and Pervasive Computing
CSC 2229H Topics in Multiple Access Communications Networks
CSC 2231H Topics in Computer Systems
CSC 2232H Topics in Computer System Performance and Reliability

Numerical Analysis and Scientific Computation
CSC 2301H Numerical Solution of Initial Value Problems for Ordinary Differential Equations
CSC 2305H Numerical Methods for Optimization Problems
CSC 2306H High Performance Scientific Computing
CSC 2307H Numerical Software
CSC 2308H Numerical Methods for Nonlinear Equations
CSC 2310H Computational Methods for Partial Differential Equations
CSC 2312H The Design and Assessment of Numerical Algorithms
CSC 2321H Matrix Calculations
CSC 2322H Boundary Problems for Ordinary Differential Equations
CSC 2324H Advanced Methods for Partial Differential Equations
CSC 2326H Topics in Numerical Analysis

Computational Complexity
CSC 2401H Introduction to Computational Complexity
CSC 2404H Computability and Logic
CSC 2405H Automata Theory
CSC 2411H Linear Programming and Combinatorial Optimization
CSC 2415H Advanced Topics in Distributed Computing
CSC 2416H Machine Learning Theory
CSC 2423H Finite Model Theory and Descriptive Complexity
CSC 2426H Fundamentals of Cryptography
CSC 2428H Logic and Automata
CSC 2429H Topics in the Theory of Computation
MAT 1750H Computational Mathematics

Applied Discrete Mathematics
CSC 2406H Triple Systems
CSC 2410H Introduction to Graph Theory
CSC 2412H Computer Algebra
CSC 2413H Combinatorial Methods and Designs
CSC 2414H Topics in Applied Discrete Mathematics
CSC 2418H Computational Structural Biology
CSC 2421H Algebraic and Combinatorial Techniques in Complexity Theory
CSC 2422H Reasoning About Knowledge
CSC 2427H Topics in Graph Theory

Artificial Intelligence
CSC 2501H Computational Linguistics
CSC 2502H Knowledge Representation and Reasoning
CSC 2503H Foundations of Computer Vision
CSC 2506H Probabilistic Learning and Reasoning
CSC 2511H Natural Language Computing
CSC 2512H Constraint Satisfaction Problems
CSC 2515H Introduction to Machine Learning
CSC 2517H Discrete Mathematical Models of Sentence Structure
CSC 2518H  Spoken Language Processing
CSC 2519H  Natural Language Semantics
CSC 2520H  The Computational Lexicon
CSC 2523H  Object Modelling and Recognition
CSC 2528H  Advanced Computational Linguistics
CSC 2530H  Computer Vision for Advanced Digital Photography
CSC 2532H  Dynamical Systems and Artificial Intelligence
CSC 2533H  Foundations of Knowledge Representation
CSC 2534H  Decision Making Under Uncertainty
CSC 2535H  Learning Algorithms for Neural Networks
CSC 2539H  Topics in Computer Vision
CSC 2540H  Special Topics in Computational Linguistics
CSC 2542H  Topics in Knowledge Representation and Reasoning
CSC 2544H  Web Searching and Mining
JST 4501Y  Belief Functions and the Assessment of Uncertainty

Computer Graphics and Human-Computer Interaction
CSC 2504H  Computer Graphics
CSC 2505H  Geometric Representations for Computer Graphics
CSC 2514H  Human-Computer Interaction
CSC 2521H  Topics in Computer Graphics
CSC 2522H  Advanced Image Synthesis
CSC 2524H  Topics in Interactive Computing
CSC 2529H  Computer Animation
CSC 2536H  Computer Supported Cooperative Work
KMD 1001H  Fundamental Concepts in Knowledge Media Design

Information Systems
CSC 2231H  Packet Switch and Network Architectures
CSC 2417H  Algorithms for Genome Sequence Analysis
CSC 2431H  Topics in Computational Molecular Biology
CSC 2507H  Conceptual Modelling
CSC 2508H  Advanced Management Systems
CSC 2509H  Data Management Systems
CSC 2510H  Topics in Information Systems
CSC 2525H  Research Topics in Database Management
CSC 2526H  HCI: Topics in Ubiquitous Computing
CSC 2527H  The Business of Software
CSC 2531H  Advanced Topics in Data Management Systems
CSC 2538H  Topics in Foundations of Databases
CSC 2543H  Research Topics in XML Retrieval

Special Courses
CSC 2199H  Special Reading Course in Programming
CSC 2299H  Special Reading Course in Computer Systems
CSC 2399H  Special Reading Course in Numerical Computation
CSC 2499H  Special Reading Course in Theoretical Aspects of Computer Science
CSC 2599H  Special Reading Course in Computer Applications
CSC 2600H  Topics in Computer Science
CSC 2701H  Communication for Computer Scientists
CSC 2702H  Technical Entrepreneurship
CSC 4000Y  M.Sc. Research Project in Computer Science

Graduate Faculty

Full Members

Abdelrahman, Tarek - BSc, MSc, PhD
Amza, Cristina - BS, MS, PhD
Bacchus, Fahlia - PhD (Coordinator of Graduate Studies)
Baecker, Ronald - BS, MSc, PhD
Balakrishnan, Ravin - PhD
Beck, J. Christopher - BSc, MSc, PhD
Blake, Ian - BASc, MASC, PhD
Bonner, Anthony - BSc, MSc, PhD
Borodin, Allan - BA, PhD
Boutilier, Craig - MSc, PhD (Chair & Graduate Chair)
Brudno, Michael (Mikhail) - AB, MSc, PhD
Chechik, Marsha - BS, MS, PhD
Chignell, Mark - BSc, PhD
Christara, Christina - BSc, MSc, PhD
Consens, Mariano - BEng, MSc, PhD
Cook, Stephen - BS, AM, PhD
Cornell, Derek - BSc, MA, PhD
De Lara, Eyal - BS, MS, PhD
Demike Brown, Angela - PhD
Dickinson, Sven Josef - BASc, MS, PhD
Easterbrook, Stephen Michael - BSc, PhD
Ellen, Faith - BM, MMath, PhD
Enright, Wayne - BSc, MSc, PhD
Fairgrieve, Thomas - MSc, PhD
Farzana, Azadeh - PhD
Fiume, Eugene - BM, MSc, PhD
Fleet, David James - BS, MS, PhD
Fox, Mark - BSc, PhD
Frey, Brendan - PhD
Ganjali, Yashar - BSc, MSc, PhD
Goel, Ashvin - BTech, MS, PhD
Graham, G Scott - BSc, MSc, MA, PhD
Hadzilacos, Vassos - BSE, PhD
Hehner, Eric - BSc, MSc, PhD
Hertzmann, Aaron - BA, MS, PhD
Hinton, Geoffrey - BA, PhD
Hirst, Guinevere - BA, BSc, MSc, PhD
Jackson, Kenneth - BSc, MSc, PhD
Jacobsen, Hans-Arno - MCS, PhD
Jepson, Allan - BSc, PhD
Jurisica, Igor - PhD
Koudas, Nick - BS, MS, PhD
Kutulakos, Kiriakos - BS, MSc, PhD
Levesque, Hector - BSc, MSc, PhD
Li, Baocun - BEng, MSc, DPhil
Lie, David - BASc, MS, DPhil
Liebeherr, Jorg - DipIng, PhD
Lilien, Ryan - BS, MD, PhD  
Magen, Avner - PhD  
Marbach, Peter Josef - BS, MS, PhD  
McIlraith, Sheila - BSc, MSc, PhD  
Mendelsohn, Eric - BSc, MSc, PhD  
Miller, Renee - BS, BM, MS, PhD  
Molloy, Michael - BMATH, MMath, PhD  
Mylopoulos, John - BE, MSc, PhD  
Neal, Radford - BSc, MSc, PhD  
Penn, Gerald - BS, MSc, PhD  
Pitassi, Toniann - PhD  
Rackoff, Charles - SB, SM, PhD  
Roweis, Sam - BSc, PhD  
Saroiu, Stefan - PhD  
Schroeder, Bianca - MSc, PhD  
Shub, Michael - AB, MA, PhD  
Singh, Karan - BS, MS, PhD  
Smith, Brian Cantwell - BS, MS, PhD  
Steffan, J. Gregory - BASc, MS, MASc, PhD  
Stevenson, Suzanne Ava - MS, PhD  
Stumm, Michael - MS, PhD  
Toueg, Sam - BS, MA, MSEE, PhD  
Truong, Khai Nhat - BSc, PhD  
Wortman, David - BE, MS, PhD  
Zemel, Richard - PhD  

Members Emeriti  
Boulton, Peter - BASc, MASc, PhD  
Gotlieb, Calvin Carl - BA, MA, PhD  
Hume, James - BA, MA, PhD  
Mathon, Rudolf - MSc, PhD  
Urquhart, Alasdair - MA, MA, PhD  
Vranesic, Zvonko - BASc, MASc, PhD  

Associate Members  
Banerjea, Anindo - BTech, PhD  
Bilas, Angelos - BASc, MA, PhD  
Carpendale, Sheelagh - BS, PhD  
Danahy, John - BLA, MRP  
Gruninger, Michael - BSc, MS, PhD  
Jaimungal, Sebastian - BS, MS, PhD  
Karakoulas, Gregory - BS, MSc, PhD  
Lesperance, Yves - BSc, MSc, PhD  
Mann, Steve - PhD  
Moshovos, Andreas - BSc, MS, PhD  
Sminchisescu, Cristian - MSc, PhD  
Tsotsos, John - BASc, MSc, PhD  
Van De Panne, Michiel - BS, MSc, PhD  
Wilson, Gregory - BSc, MS, PhD  

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Criminology

Faculty Affiliation
Faculty of Arts and Science

Degree Programs Offered
Criminology – MA, Combined JD/MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Criminology, MA, PhD
2. Sexual Diversity Studies
   • Criminology, MA, PhD
3. Women and Gender Studies
   • Criminology, MA, PhD

Overview
The Centre of Criminology, founded in 1964, offers advanced interdisciplinary study in two closely related, overlapping areas: criminology and socio-legal studies. While there is no set career path for the MA graduates, they generally 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 legal studies is useful. Some choose to go to law school, and many have gone on to other postgraduate work, e.g. in Public Health Sciences, Sociology, Law, and Social Work. On their part, PhD students have mainly found employment in tenure-track positions, most often in sociology departments or in criminology programs. Both graduate degrees 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 of Criminology. The objective of the 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 pursing degrees at other universities but residing in Toronto may apply to be appointed Visiting Junior Fellows.

Contact and Address
E-mail: crim.grad@utoronto.ca
Web: www.criminology.utoronto.ca
Telephone: (416) 978-8679, ext. 225
Fax: (416) 978-4195
Official copies of these scores must be submitted to the University 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 (FCE) within 9 months or
  - by completing 3.0 FCE and a research paper within 12 months
- The degree program divides into two sections: compulsory and optional courses.
  - The compulsory section consists of a course on research methods (CRI 2010H).
  - The optional courses allow students to engage in specialized study of different approaches to, and topics within, criminology. The optional 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 FCE from another graduate unit in lieu of optional courses in Criminology.
- All students are required to participate in the Centre’s non-credit Research Seminar.

Combined Juris Doctor/Master of Arts
Law students who also want to pursue graduate work in criminology may undertake the combined JD/MA in Criminology degree program.

Minimum Admission Requirements
- Applicants must gain independent admission to both programs. Applicants may be admitted before they enter the JD program or while they are in the first year.
- Applicants wishing to apply to the Combined JD/MA program in Criminology should contact the Admissions Office, Faculty of Law, University of Toronto at (416) 978-3716.

Program Requirements
- Year 1. Students take the full first-year law program.
- Years 2 and 3. Over the course of the two combined years students must:
  - take 45 credits in the Faculty of Law;
  - satisfy the compulsory requirements of the upper years of the JD These are a moot, an extended paper, and a perspective course;
  - take 3.0 FCE at the Centre of Criminology of which
    - 0.5 FCE must be the required research methods course (CRI 2010H)
    - 1.0 FCE may be taken in the form of the Centre of Criminology’s Research Paper (CRI 3360Y).
  - Students must take a minimum of 1.0 FCE in Criminology in each of Years 2 and 3 of the program and may take a maximum of 2.0 FCE a year. The number of law school credits completed each year will be adjusted accordingly, the only requirement being that 45 are completed over the two years.
- Students must submit their programs for the approval of the Director of the Combined Program.

Doctor of Philosophy

Minimum Admission Requirements
- Applicants normally hold an MA degree in Criminology with a minimum A- standing, or its equivalent from a recognized university. Students from MA programs other than the University of Toronto’s MA in Criminology 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. Facility 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 TWE
  - Computer-based TOEFL exam: 237 and 5 on the essay rating component
  - 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 before a formal offer of admission can be made.

Program Requirements
- Residency. PhD students are required to be on campus full-time for the period of their program. Students are expected to participate in the Centre’s activities associated with the program.
- 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.
- Course Requirements. Students must complete a minimum of 2.0 full-course equivalents (FCE) beyond those taken at the MA level. With approval of the Graduate Coordinator, 1.5 FCE of these may be from another graduate unit. Students must complete, at either the MA or the PhD level, the required research methods course (CRI 2010H). PhD students are also required to participate in the non-credit research seminar.
• **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. 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 in Criminology, with two other members of the graduate faculty serving on the thesis committee.

• Students will normally complete all course requirements for the PhD in the first year of their PhD program. Comprehensives will normally be completed by the end of the first session of the second year. It is expected that the dissertation should be completed and successfully defended by the end of the fourth year.

### Course List

All courses are half-courses (0.5 FCE), with the exception of the Research Paper (1.0 FCE). Not all courses are offered every year. Consult the Centre regarding course availability.

Due to space limitations, Criminology graduate students will be given priority in graduate course enrollment; all other students must receive written permission from the instructor before enrolling in any of the Centre’s graduate courses.

#### Required Course
- CRI 2010H Methodological Issues in Criminology

#### Optional Courses
- CRI 1020H Law and Society: Theoretical Perspectives
- CRI 1050H Theories of Crime and Social Order
- CRI 2020H Applied Statistics in Criminology
  (Students may take this course or IRE 1002H Applied Statistics in Industrial Relations, but not both.)
- CRI 3120H Politics and Crime
- CRI 3130H Policing
- CRI 3140H Special Topics in Criminology
- CRI 3150H Crime, Law, and the State in Early Modern England, 1650-1850
- CRI 3160H Historical Approaches to Crime and Justice in Canada
- CRI 3240H Penology
- CRI 3270H The Psychology of Criminal Behaviour: Theory and Practice
- CRI 3310H Special Topics in Criminology
- CRI 3320H The Criminal Process
- CRI 3330H Contemporary Issues in Safety and Security

CRI 3340H Special Topics in Criminology
CRI 3350H Directed Research in Criminology
CRI 3355H Sentencing
CRI 3351H Directed Research in Criminology
CRI 3356H Youth Crime and Youth Justice
CRI 3357H Risk, Uncertainty, and Criminal Justice
CRI 3360Y* Research Paper

### Graduate Faculty

#### Full Members
- Doob, Anthony - AB, PhD
- Gartner, Rosemary - BA, AA, MS, PhD
- Hannah-Moffat, Kelly - PhD
- Kruttschnitt, Candace - BA, MA, MPH, PhD
- Levi, Ron - BCL, LLB, LLM, SJJD
- Peterson-Badali, Michele - BA, MA, PhD
- Phillips, James - LLB, MA, PhD
- Roach, Kent - BA, LLB, LLM
- Solomon, Peter - BA, MA, PhD
- Tanner, Julian - DIPED, BSc, MA, PhD
- Valverde, Mariana - BA, MA, PhD (Director)
- Wortley, N. Scot - BA, MA, PhD (Coordinator of Graduate Studies)

#### Members Emeriti
- Beattie, John - BS, MA, PhD
- Friedland, Martin - BCom, LLB, PhD

#### Associate Members
- Bucerius, Sandra - BA, MA, PhD
- Condon, Mary - BA, LLM, MA, SJD
- Erickson, Patricia - BA, MA, PhD
- Light, Matthew - BA, MA, JD, PhD
- Skilling, Tracey - PhD

*Courses which may continue over a program. The course is graded when completed.*
Curriculum, Teaching, and Learning

Faculty Affiliation
Ontario Institute for Studies in Education

Degree Programs Offered

Curriculum Studies and Teacher Development - MEd, MA, PhD
Elementary and Secondary Education - MT
Second Language Education - MEd, MA, PhD

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

1. Comparative, International and Development Education
   - Curriculum Studies and Teacher Development, MA, MEd, PhD
   - Second Language Education, MA, MEd, PhD

2. Knowledge Media Design
   - Curriculum Studies and Teacher Development, MA, MEd, PhD
   - Second Language Education, MA, MEd, PhD

3. Women and Gender Studies
   - Curriculum Studies and Teacher Development, MA, MEd, PhD
   - Second Language Education, MA, MEd, PhD

Overview
The Department of Curriculum, Teaching, and Learning offers graduate programs in three areas of study:

1. Curriculum Studies and Teacher Development
2. Elementary and Secondary Education
3. Second Language Education

These programs reflect a variety of scholarly interests and are closely linked with the Department’s strong research base.

Contact and Address

Admission
Initial enquiries regarding admission to graduate studies in the Department of Curriculum, Teaching and Learning (CTL) should be made directly to:

The Ontario Institute for Studies in Education of the University of Toronto (OISE/UT)
Registrar’s Office
Graduate Studies, Admissions Unit
Fourth Floor, 252 Bloor Street West
Toronto, Ontario MSS 1V6
Canada

Program
Web: www.oise.utoronto.ca/depts/ctl/
E-mail: cttinquiries@oise.utoronto.ca
Telephone: (416) 978-0040
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Department of Curriculum, Teaching and Learning
The Ontario Institute for Studies in Education of the University of Toronto (OISE/UT)
Eleventh Floor, 252 Bloor Street West
Toronto, Ontario MSS 1V6
Canada

Degree Programs

Curriculum Studies and Teacher Development
The Curriculum Studies and Teacher Development (CSTD) Program is a forum for systematic reflection on the substance (subject matter, courses, programs of study), purposes, and practices used for bringing about learning in educational settings. Of concern are such fundamental issues as: What should be studied? Why? By whom? In what ways? And in what settings? Reflection upon such issues involves an interplay among the major components of education: learners, subject matter, learning, teaching, and the larger social, political, and economic contexts as well as the immediate instructional situation. Curriculum Studies and Teacher Development Program course offerings and guided research opportunities reflect the diverse interests of faculty in a range of areas.

Curriculum Studies and Teacher Development Program faculty guide student work in a wide range of inquiry and data analysis methodologies, including qualitative and quantitative research, action research, naturalistic inquiry, teacher inquiry, performed and critical ethnography, and life history.

Interest areas reflect overlapping and intersecting areas of strength in the whole CSTD program, not separate sub-programs. Visit the list of CSTD research interests at www.oise.utoronto.ca/depts/ctl/programs_admissions01.htm for further information. Faculty members working in this program pursue research interests, and offer courses, in areas such as the following:

Curriculum Theories, Perspectives and Teacher Development include broad orientations and diverse settings for research in curriculum, schooling, teaching/learning, educational change:
• Assessment and Evaluation
• Comparative Education and Education in International Settings
• Cultural Studies and Critical Theory in Education
• Curriculum and Program Development and Implementation
• Dialogic and Social Constructivist Approaches to Curriculum
Master of Education
The MEd degree program is designed chiefly for the professional development of those who are already engaged in a career related to education.

Minimum Admission Requirements
- Applicants are accepted under the general regulations which specify an appropriate four-year University of Toronto bachelor's degree, or its equivalent 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.
- Ordinarily, applicants will have at least one year of relevant, successful, professional experience prior to applying.
- In the Statement of Intent, 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 Statement of Intent, applicants should visit the Curriculum Studies and Teacher Development Program Web page (www.oise.utoronto.ca/depts/ctl/programs_admissions01.htm). The Admissions Committee reviews this Statement 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
- 5.0 full-course equivalents (FCE), of which at least 2.5 FCE are normally CTL 1000-level courses undertaken in the Curriculum Studies and Teacher Development Program. Students are required to successfully complete CTL 1000H.
- Additional study may be required either within the degree program or prior to admission, depending on previous experience and academic qualifications.
- The MEd may be taken on a full-time or part-time basis.
- All requirements for the degree must be completed within six calendar years from first enrolment.

Master of Arts
The MA degree program is designed to provide academic study and research training related to curriculum studies. 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.

Minimum Admission Requirements
- Applicants are accepted under the general regulations. Admission normally requires a four-year University of Toronto bachelor's degree, or its equivalent, with a 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.
• Statement of Intent. Applicants should state the reasons they wish to undertake a research-oriented program of study in curriculum or teacher development. The chief academic interests and experience, professional concerns, and career plans related to an aspect of curriculum studies should be discussed. In order to identify their research interests in their Statement of Intent, applicants should visit the Curriculum Studies and Teacher Development Program Web page (www.oise.utoronto.ca/depts/ctl/programs_admissions01.htm). The Admissions Committee reviews this Statement to determine the kind of curriculum problem or area of study in which an applicant is most interested and to link the applicant to appropriate faculty advisors.

Program Requirements
• 4.0 full-course equivalents (FCE), of which at least 2.0 FCE are normally CTL 1000-level courses undertaken in the Curriculum Studies and Teacher Development Program.
• Additional courses may be required of some applicants, depending on previous experience and academic qualifications. Students are required to successfully complete CTL 1000H, and a course in research methods from an approved course listing.
• Thesis.
• The MA may be taken on a full-time or part-time basis.
• All requirements for the degree must be completed within five years from first enrolment.
• Note: Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, and ethical review.

Doctor of Philosophy
The PhD program demands a strong commitment to curriculum research. The Curriculum Studies and Teacher Development Program offers both full-time and flexible-time PhD program options. Applicants must declare the option for which they wish to apply.

Minimum Admission Requirements
Full-time PhD
• Applicants are accepted under the SGS general regulations. A University of Toronto master’s degree in education with a grade of B+ or better, or its equivalent from a recognized university, 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:
  o Their master’s thesis or a sample of single-authored scholarly writing. For details about what constitutes an appropriate writing sample, visit (www.oise.utoronto.ca/depts/ctl/programs_admissions01.htm).
  o A Statement of Intent describing their intellectual interests and concerns relevant to curriculum studies and teacher development, reasons for wishing to take the Program, previous qualifications and professional experiences, particular research or professional interests, and future career goals.
  o Two letters of reference, one academic and one professional.

Flexible-time PhD
• Applicants to the flexible-time PhD option are accepted under the SGS general regulations and are subject to the same admission requirements as applicants to the full-time PhD option.
• However, in addition, applicants to the flexible-time PhD must include in their Statement of Intent the outline of a plan that demonstrates the applicant:
  o is in a career related to the field of study;
  o has three or more years with the same employer;
  o has a desire to continue with current career path;
  o has the capacity to secure blocks of time to enable concentrated study (e.g., reference to the employer’s leave policy, study incentive system, etc.)

Program Requirements
• Degree requirements for the full-time and flexible-time options of the PhD are the same. Only the length of time to completion differs. Full-time PhD students must complete their degree within six years; flexible-time PhD students within eight years.
• The PhD program normally consists of 3.0 full-course equivalents (FCE), of which at least 2.0 FCE are ordinarily CTL 1000-level courses. Additional courses may be required of some students.
• Students are expected to take CTL 1000H if they did not complete it at the master’s level, and one course in research methods from an approved course listing. This listing is available at the CSTD Program Web page (www.oise.utoronto.ca/depts/ctl/programs_admissions01.htm).
• Successful completion of a comprehensive examination.
  • A thesis, embodying the results of an original investigation, and a final oral examination on the content and implications of the thesis.

Note: Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, comprehensive examination, and ethical review.
Course List

Not all courses are offered every year. Please consult the Department for course offerings.

CTL 1000H Fondements du l'étude des programmes scolaires
CTL 1000H Foundations of Curriculum Studies
CTL 1001H Values and Schooling
CTL 1002H Planification de la programmation pour un enseignement efficace
CTL 1002H Curriculum Development for Effective Teaching
CTL 1003H Language Arts in Primary Education
CTL 1005H Language, Literacy, and the School Curriculum
CTL 1007H Communities of Learning: Teachers Constructing Professional Knowledge
CTL 1008H Children's Literature as a Foundation of Literate Behaviour Across the Curriculum
CTL 1009H Theory and Practice in Elementary Literacy Instruction
CTL 1010H Children's Literature Within a Multicultural Context
CTL 1011H Anti-Discriminatory Education in School Settings
CTL 1012H Curriculum for Girls and Young Women: Historical and Contemporary Issues
CTL 1014H Evaluation of Curriculum and Instruction
CTL 1016H Cooperative Learning Research and Practice
CTL 1018H Introduction to Qualitative Inquiry in Curriculum, Teaching, and Learning
CTL 1019H Authentic Assessment
CTL 1020H Teaching High Ability Students
CTL 1023H Technology and Education: Critical Perspectives on Theory and Practice
CTL 1024H Poststructuralism and Education
CTL 1026H Improving Teaching
CTL 1027H Facilitating Reflective Professional Development
CTL 1028H Constructive Feedback in Teaching
CTL 1029H From Student to Teacher: Professional Induction
CTL 1031H Language, Culture, and Identity: Using the Literary Text in Teacher Development
CTL 1032H Knowing and Teaching
CTL 1033H Multicultural Perspectives in Teacher Development: Reflective Practicum
CTL 1036H Change and Curriculum Implementation
CTL 1039H Teaching Writing in the Classroom
CTL 1040H Fundamentals of Program Planning and Evaluation
CTL 1041H Research Methods In Education
CTL 1042H Instrument Development in Education
CTL 1043H Research Issues in Alternative Assessments
CTL 1045H Survey Research
CTL 1046H Training Evaluation

CTL 1047H Course-Self-Assessment
CTL 1060H Education and Social Development
CTL 1104H Play, Drama, and Arts Education
CTL 1105H Research and Inquiry in Arts Education
CTL 1106H Spirituality in Education
CTL 1110H The Holistic Curriculum
CTL 1115H Teacher Education and the Construction of Professional Knowledge: Holistic Perspectives
CTL 1116H Holistic Education Approaches in Elementary School Mathematics
CTL 1117H Liberatory Practices in Drama and Education
CTL 1119H Gaining Confidence in Mathematics: A Holistic Approach to Rebuilding Math Knowledge and Overcoming Anxiety
CTL 1200H Science in the School Curriculum
CTL 1202H Mathematics in the School Curriculum: Elementary
CTL 1206H Teaching and Learning Science
CTL 1207H Teaching and Learning about Science: Issues and Strategies in Science, Technology, Society, and Environment (STSE) Education
CTL 1208H Curriculum Issues in Science and Technology: An Historical Perspective
CTL 1209H Current Issues in Science and Technology Education
CTL 1211H Action Research in Science, Mathematics, and Technology Education
CTL 1212H Curriculum Making in Science: Some Considerations in the History, Philosophy and Sociology of Science
CTL 1214H Equity Issues in Science Education
CTL 1215H Teaching and Learning About Science and Technology: Beyond Schools
CTL 1216H Teacher Leadership in Curriculum, Teaching and Technology Education
CTL 1217H Integrating Science, Mathematics and Technology Curricula
CTL 1304H Cultural Studies and Education
CTL 1306H La recherche qualitative en éducation: bases théoriques et pratiques
CTL 1306H Qualitative Research Methods in Education: Concepts and Methods
CTL 1307H Identité collective et éducation minoritaire de langue française
CTL 1307H Identity Construction and Education of Minorities
CTL 1309H Les stéréotypes sexuels dans les programmes scolaires
CTL 1312H Democratic Citizenship Education
CTL 1313H Gender Equity in the Classroom
CTL 1316H Global Education: Theory and Practice
CTL 1318H Teaching Conflict and Conflict Resolution
CTL 1400H Classroom Adaptations and Instructional Strategies
CTL 1402H Adaptive Instruction in Inclusive Classrooms
CTL 1403H Special Education and Social Representation of Difference
CTL 1602H Introduction to Computers in Education
CTL 1603H Introduction to Knowledge Building
Master of Teaching

The Elementary and Secondary Education degree program is a two-year full-time program of 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 Teacher certificate of Qualification which qualifies them to teach in either the primary and junior divisions, the junior and intermediate divisions or the intermediate and senior divisions of Ontario schools. The Master of Teaching in Elementary and Secondary Education program offers students a unique opportunity for teacher qualification with advanced theoretical knowledge and research skills. The program provides students with a strong conceptual grounding in human development, ethics, law, diversity, educational technology, curriculum, teaching, and learning with a K-12 focus. The high level of academic rigour in conjunction with increased practicum and internship opportunities serve to enhance and extend the theoretical and practical experiences of students preparing to teach.

Program objectives are achieved through a combination of course work, teaching and research seminars, internships and practica, along with independent and collaborative research and major research papers.

Minimum Admission Requirements

- Applicants are admitted under the general regulations of the School of Graduate Studies. Applicants must have the equivalent of a University of Toronto four-year bachelor's degree with a mid-B or better in the final year.
- In their Statement of Intent, applicants should describe three significant teaching and/or teaching-related experiences that they have had, especially with groups of children. 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 addition, applicants are requested to list, in chart form, the extent of their experience working with children. The chart should include dates, location of experience, role, and number of hours working with students.
- Final selection will be based on an interview by a panel of faculty, teachers, and students. Given program limitations, not all eligible applicants are guaranteed admission.
- Because applicants are applying to a teacher education program, the following items must be submitted with the application:
  - a photocopy of a Canadian birth certificate, or in the case of a person who was not born in Canada, documents showing the basis upon which the applicant is present in Canada, including date and place of birth
  - a photocopy of a certificate of change of name where applicable
- A police record check is required for certification by the Ontario College of Teachers and is required in both the first and second year of the program.

Program Requirements

- The two-year MT degree requires 8.0 full-course equivalents (FCE), i.e., 16 half-courses. Please refer to the 2009/10 OISE Bulletin for more information.
- Students must successfully complete a comprehensive examination at the end of the program in order to graduate and receive the MT degree and a recommendation to the Ontario College of Teachers for an Ontario Teachers’ Certificate of Qualification.
- Normally, advanced standing is not granted in this program.
- The two-year program is undertaken on a full-time basis. Registration in the second year is contingent upon successful completion of all first-year work.

Course List

The following courses include core and specific courses. Please refer to the 2009/10 OISE Bulletin for more information.

CTL 7000H Curriculum and Teaching in Literacy
CTL 7001H Educational Professionalism, Ethics, and the Law
CTL 7002H Curriculum and Teaching in Mathematics
CTL 7003H Curriculum and Teaching in Social Studies and Science
CTL 7004Y Practicum in the Schools
CTL 7005Y Practicum Internship
CTL 7006Y Reflective Teaching and Inquiry into Research in Education
CTL 7007H Authentic Assessment
CTL 7008Y Introduction to Special Education and Adaptive Instruction
CTL 7009H Anti-Discriminatory Education
CTL 7010H Issues in Numeracy and Literacy
CTL 7011H Child and Adolescent Development
CTL 7012H Issues in Secondary Education
CTL 7013H Arts in Education
CTL 7020Y Curriculum and Teaching in English - Intermediate/Senior
Curriculum, Teaching, and Learning

CTL 7021Y Curriculum and Teaching in History
- Intermediate/Senior
CTL 7022H Curriculum and Teaching in Mathematics
- Secondary
CTL 7023Y Curriculum and Teaching in Science: Biology
- Intermediate/Senior

Elective Courses
The one elective course is normally selected from other graduate courses offered at OISE. This course is taken in the summer after the first year or in the second year. Choice of electives is contingent upon the approval of the student's faculty advisor.

Second Language Education
Studies in Second Language Education (SLE) focus on curriculum, instruction, learning, and policies for education in second, foreign, and minority languages, particularly in reference to English and French in Canada but also other languages and settings, including studies of language learning, methodology and organization of classroom instruction, language education policies and planning, and student and program evaluation as well as issues related to bilingualism, multilingualism, cultural diversity, and literacy.

Master of Education

Minimum Admission Requirements
- Applicants are accepted under the general regulations which specify an appropriate four-year University of Toronto bachelor's degree with a mid-B or better in the final year, or its equivalent from a recognized university.
- Ordinarily, applicants should have teacher certification and at least one year of relevant successful professional experience prior to applying.
- All applicants are required to submit a resume and a Statement of Intent describing their reasons for wishing to take the program, previous qualifications and professional experiences, particular research or professional interests, and future goals.

Program Requirements
- The MEd program consists of 5.0 full-course equivalents (FCE). A minimum of 2.5 FCE CTL 3000-level courses must be taken. Of these, 1.0 FCE are required courses and must be selected from the following list:
  - CTL 3000H Bilingual and Multicultural Education
  - CTL 3002H Second Language Teaching Methodologies
  - CTL 3003H Planning and Organizing the Second Language Curriculum
  - CTL 3010H Second Language Learning
- The MEd program of study may be taken on a full or part-time basis. All requirements for the degree must be completed within six calendar years from first enrolment.

Master of Arts

Minimum Admission Requirements
- Applicants are accepted under the general regulations. Admission requires a four-year University of Toronto bachelor's degree with a mid-B or better in the final year, or its equivalent, in a relevant discipline or professional program.
- Ordinarily, applicants should have teacher certification and at least one year of relevant successful professional experience prior to applying.
- Enrolment in the MA (rather than MEd) program is advisable for applicants expecting to pursue a doctorate in the future.
- All applicants are required to submit a resume and a Statement of Intent describing their reasons for wishing to take the program, previous qualifications and professional experiences, particular research or professional interests, and future career goals.

Program Requirements
- The MA program may be undertaken on a full-time or part-time basis.
- The program requires 4.0 full-course equivalents (FCE) or 8.0 half-courses plus a thesis.
- Students must take a minimum of 2.0 FCE CTL 3000-level courses within the SLE program. Courses must include CTL 3001H. Part-time students are expected to be available to take CTL 3001H during day-time hours (usually Friday afternoons).
- Students must also take a course in research methods relevant to the topic of the thesis. Any of the following courses can fulfill this requirement: CTL 1018H, CTL 1030H, CTL 1041H, CTL 1306H, CTL 1810H, CTL 1842H, CTL 3019H, CTL 3800H, CTL 3803H, CTL 3807H, AEC 1400H, HDP 1287H, HDP1288H or SES 1905H. Students wishing to propose an alternative course to fulfill one of the SLE course requirements will be required to obtain the approval of both the SLE graduate program coordinator and either their faculty advisor or their thesis supervisor.
- Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, and ethical review.
- Additional courses may be required of some applicants. All requirements for the degree must be completed within five calendar years from first enrolment.

Doctor of Philosophy
Individuals pursuing the PhD typically aspire to be university professors in this field. The SLE program offers both full-time and flexible-time PhD options. Applicants must declare their preferred option when applying.
Minimum Admission Requirements

**Full-time PhD**
- Applicants are accepted under the SGS general regulations. A University of Toronto master's degree with a grade of B+ or better, or its equivalent 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 relevant professional experience prior to applying.
- All applicants are required to submit a resume and a Statement of Intent describing their reasons for wishing to take the Program, previous qualifications and professional experiences, particular research or professional interests, and future career goals.

**Flexible-time PhD**
- Applicants to the flexible-time PhD option are accepted under the SGS general regulations and are subject to the same admission requirements as applicants to the full-time PhD option.
- In addition, applicants to the flexible PhD must include in their Statement of Intent the outline of a plan that demonstrates the applicant:
  - is in a career related to the field of study;
  - has three or more years with the same employer;
  - has a need and desire to continue with current career path;
  - has the capacity to secure blocks of time to enable concentrated study (e.g., reference to the employer's leave policy, study incentive system, etc.).

Program Requirements

**Master's Level**
- JHC 1251H Reading in a Second Language
- JTE 1952H Language Culture and Education/M. Heller
- CTL 3000H Foundations of Bilingual and Multicultural Education
- CTL 3001H Research Colloquium in Second Language Education: Master's Level
- CTL 3002H Second Language Teaching Methodologies
- CTL 3002Y Methodology and Organization of Second-Language Teaching
- CTL 3003H Planning and Organizing the Second Language Curriculum
- CTL 3004H Language Awareness and its Role in Teacher Development
- CTL 3005H Current Issues in English as a Second Language
- CTL 3007H Discourse Analysis
- CTL 3007H Séminaire sur le langage et la communication
- CTL 3008H Critical Pedagogy, Language, and Cultural Diversity
- CTL 3010H Second-Language Learning
- CTL 3011H Bilingual Education and Bilingualism
- CTL 3011H Bilinguisme et éducation ou membre de la faculté à déterminer
- CTL 3012H Communicative Competence
- CTL 3013H Second Language Assessment
- CTL 3015H Seminar in Second-Language Literacy Education
- CTL 3018H Language Planning and Policy
- CTL 3018H Politique et aménagement linguistique
- CTL 3019H Research Themes in Canadian French as a Second Language Education
- CTL 3020H Writing in a Second Language
- CTL 3021H Pedagogical Grammar of French
- CTL 3023H Sociolinguistique du français canadien
- CTL 3024H Second Language Teacher Education
- CTL 3025H Applied Sociolinguistics in Second Language Education
- CTL 3026H Pragmatics in Second Language Education
Degree Programs by Graduate Unit

**Curriculum, Teaching, and Learning**

### CTL 3797H
Practicum Second Language Education: Master's Level

### CTL 3798H
Individual Reading and Research in Second Language Education: Master's Level

### CTL 3799H
Special Topics Second Language Education: Master's Level

#### Doctoral Level

**CTL 3800H** Second Language Classroom Research
**CTL 3801H** Research Colloquium in Second Language Education: Doctoral Level
**CTL 3803H** Ethnographic Research in the Language Disciplines
**CTL 3805H** Aspects of Second-Language Acquisition
**CTL 3806H** Sociocultural Theory and Second Language Learning
**CTL 3807H** Processing Second Language Data
**CTL 3808H** The Role of Instruction in Second Language Learning
**CTL 3809H** Research Seminar in Sociocultural Theory and Second Language Learning
**CTL 3997H** Practicum Second Language: Doctoral Level
**CTL 3998H** Individual Reading and Research in Second Language: Doctoral Level
**CTL 3999H** Special Topics in Second Language Program: Doctoral Level

### Graduate Faculty

#### Full Members
- Bencze, Lawrence - BEd, BSc, MSc, PhD
- Bennett, Barrie - BSc, MEd, PhD
- Bickmore, Kathy - MA, PhD
- Brett, M. Clare - BA, MA, PhD
- Cameron, Linda - BA, MEd, EdD
- Campbell, Elizabeth - BA, BEd, MEd, PhD *(Associate Chair, Graduate Studies)*
- Cohen, Rina - MSc, PhD
- Conle, Carola - BA, MEd, PhD
- Cooper, Karyn - PhD
- Cumming, Alister - BA, MA, PhD
- Cummins, James - BA, PhD
- Danesi, Marcel - BA, MA, PhD
- Davie, Lynn - BA, MA, PhD
- Diamond, Colin - BA, PhD
- Earl, Lorna - PhD
- Farrell, Joseph - BSc, PhD
- Feuerverger, Grace - BA, MA, PhD
- Gagne, Antoinette - BEd, MEd, PhD
- Gallagher, Kathleen Marie - PhD
- Gerin-Lajoie, Diane - BSc, MA, PhD
- Goldstein, Tara - BA, PhD *(Chair & Graduate Chair)*
- Hewitt, James - BEd, BMATH, MEd, PhD
- Hodson, Derek - BSc, MEd, PhD
- Kerekes, Julie - BA, MA, PhD
- Kooy, Mary - BA, MA, PhD
- Kosnik, Clare - DPhil, DPhil
- Labrie, Normand - BA, MA, PhD
- Lam, Tony - BA, MA, PhD
- McDougall, Douglas - BM, BEd, MEd, EdD
- Miller, John - BA, MAT, PhD
- Pedretti, Erminia - BE, MEd, PhD
- Rolheiser, N Carol - BEd, MEd, PhD
- Ross, John - BA, MA, PhD
- Scardamalia, Marlene - PhD
- Simon, Roger - BS, PhD
- Slotta, James - BS, MPSY, PhD
- Smyth, Elizabeth - BA, BEd, MA, EdD
- Spada, Nina - BA, MA, PhD
- Stagg Peterson, Shelley - BE, BE, BE, MEd, PhD
- Sykes, Heather - BSc, PhD
- Thissen, Dennis - AB, MEd, DPhil
- Trifonas, Peter - BE, BA, PhD
- Wahli, Mark - BEd, MEd, PhD
- Wallace, John - BSc, BEd, MSc, PhD
- Willows, Dale - PhD
- Wilson, David - BA, MSc, PhD
- Wolfe, Richard - BA

#### Members Emeriti
- Aitken, Johan - BA, MA, PhD
- Allen, Patrick - BA, MA, PhD
- Beck, Clive - PhD
- Bogdan, Deanne - BA, MA, PhD
- Booth, David - BA, MEd
- Churchill, Stacy (Jr.) - PhD
- Connelly, Michael - BSc, BEd, MSc, PhD
- Darroch-Lozowski, Vivian - BSc, MA, PhD
- Frenette, Normand - BA, MA, MEd, PhD
- Hanna, Gila - BA, MA, MEd, PhD
- Harley, Birgit - BA, MA, PhD
- Jordan, Anne - BA, MA, PhD
- Kelly, Brendan - BSc, MSc, PhD
- Lapkin, Sharon - BA, MA, PhD
- Logan, Robert - BSc, PhD
- Nagy, Philip - BSc, MEd, PhD
- Nishisato, Shizuhiko - BA, MA, PhD
- Silver, Ronald - BA, MA, PhD
- Swain, Merrill - BA, PhD
- Traub, Ross - PhD

#### Associate Members
- Allen, Guy - BA, MA, PhD
- Alleyne, Eucline - BA, MA, EdD
- Bartle, Lee - BA, BMus, MEd, PhD
- Broad, Kathy - BEd, BA, MEd, PhD
- Burnaby, Barbara - BA, BA, MA, PhD
- Connelly, Christine - BA, BEd, MEd, EdD
- Esmonde, Indigo - BSc, MSc, MA, PhD
- Evans, Mark - BE, BA, MA, PhD
- Gaztambide-Fernandez, Ruben - BM, MEd, EdD
- Gitari, Wanjia - BEd, MA, PhD
- Helms-Park, Rena - BA, MA, AM, DPhil
- Hundey, Ian - BA, MA
- Jang, Eunice - BA, MA, PhD
- Johnson, Mayumi (Yuki) - BA, AM, PhD
- Lancaster, Ron - BEd, BS, MMath
- Marks-Krpan, Cathy - BEd, MEd, EdD
- McCready, Lance - BA, MA, PhD
- Montemurro, David - BEd, BA, MES

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Nasmith, Louise - AB, AB, MDCM
Nayer, Marla - BSc, MEd
Niyozov, Sarfaroz - MEd, MA, PhD
Procter, Margaret - BA, MA, MPH, PhD
Rehner, Katherine - BA, BE, MEd, PhD
Rossi, Miriam Frances - BSc, MSc, MD, MD, MD
Russell, M Lynn - MDCH
Seller, Wayne - BA, MEd
Shore, Lesley - DIPEd, BA, MEd, EdD
Steele, Jeffrey - BA, MA, PhD
Stewart Rose, Leslie - BEd, BM, MA, EdD
Stiegelbauer, Suzanne - BS, MA, MA, PhD
Turnbull, Miles - BA, AM
Woodruff, Earl - MA, PhD
Degree Programs by Graduate Unit

Dentistry

Faculty Affiliation
Dentistry

Degree Programs Offered
Dentistry – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aging, Palliative and Supportive Care Across the Life Course
   • Dentistry, MSc, PhD
2. Biomedical Toxicology
   • Dentistry, MSc, PhD
3. Cardiovascular Sciences
   • Dentistry, MSc, PhD
4. Biomedical Engineering
   • Dentistry, MSc, PhD
5. Neuroscience
   • Dentistry, MSc, PhD
6. Women’s Health
   • Dentistry, MSc, PhD

Overview
The Faculty of Dentistry offers a graduate program leading to either a Master of Science or Doctor of Philosophy degree. This graduate program appeals to:
1. applicants who have a degree in dentistry and who are pursuing research training and advanced clinical education leading to qualification in one of 10 dental specialty disciplines; and
2. applicants, both dentists and non-dentists, who are pursuing graduate research training without advanced clinical education.
Consequently, both the Master of Science and the Doctor of Philosophy degrees have a common core of course work and consist of three options, with each having varying additional research and training requirements.

Degree Programs

Dentistry

Master of Science

1. Thesis Option

Minimum Admission Requirements
• Four-year Bachelor of Science degree, Doctor of Dental Surgery, or an equivalent degree, with at least mid-B standing in the final year from a recognized university in a discipline appropriate to the field of dentistry.

Program Requirements
• Ordinarily one year of full-time registration; however, it is the department’s expectation that students will normally remain in full-time attendance on campus to enable full participation in departmental activities for two years.
• Year 1 - development of a research project and proposal, and course work. Course work will normally include, as a minimum, fulfilment of the requirements for the course DEN 1001Y Master’s Seminars in Oral Health Sciences and successful completion of an additional 1.5 full-course equivalent (FCE) that includes the course DEN 1015H Introduction to Biostatistics. Exemptions may be granted for previously completed course work at the bachelor’s level.
• Year 2 – research, thesis completion, and defence.

2. Specialist Dental Training - Thesis Option
The Department offers a Master of Science degree for dental graduates seeking advanced training in a clinical specialty as well as training in research.

Minimum Admission Requirements
• Doctor of Dental Surgery or an equivalent degree, with at least a mid-B standing in the final year from a recognized university.

Program Requirements
• Two to four years of full-time registration, depending upon the clinical specialty.
• Completion of an original research project culminating in the oral defence of a written thesis.
• Completion of clinical and didactic course work requirements as necessary to meet Canadian Dental Association accreditation requirements for the chosen clinical specialty that includes successful completion of the courses DEN 1014H Clinical Epidemiology and Evidence-Based Care and DEN 1015H Introduction to Biostatistics.

*Courses which may continue over a program. The course is graded when completed.

Contact and Address
Web: www.utoronto.ca/dentistry
E-mail: lori.mockler@dentistry.utoronto.ca
Telephone: (416) 979-4901, ext. 1-4482
Fax: (416) 979-4944

Graduate Department of Dentistry
University of Toronto
124 Edward Street
Toronto, Ontario M5G 1G6
Canada
Degree Programs by Graduate Unit

- Course DEN 1001Y Master's Seminars in Oral Health Sciences for a minimum of one year.
- Upon completion of all program requirements, students are eligible for the MSc degree and for Specialty, Fellowship, or Board Certification in the chosen dental specialty. For further information, consult the Faculty of Dentistry Calendar or Web site.

3. Specialist Dental Training - Course Work Only Option

The department offers a Master of Science degree for dental graduates seeking advanced training in a clinical specialty in which additional course work is undertaken as an alternative to a thesis. The MSc with training in Dental Public Health is also offered to dental hygienists. The availability of this option will vary by specialty.

Minimum Admission Requirements
- Doctor of Dental Surgery, or an equivalent degree, with at least a mid-B standing in the final year from a recognized university. For the MSc with training in Dental Public Health, dental hygiene applicants should have a four-year undergraduate dental hygiene degree from a recognized university, or a four-year undergraduate degree from a recognized university and dental hygiene training.

Program Requirements
- Two to four years of full-time registration, depending upon the clinical specialty.
- Completion of all clinical and didactic course work requirements as necessary to meet Canadian Dental Association accreditation requirements in the chosen dental specialty that includes successful completion of the courses DEN 1014H Clinical Epidemiology and Evidence-Based Care and DEN 1015H Introduction to Biostatistics.
- Course DEN 1001Y Master's Seminars in Oral Health Sciences for a minimum of one year.
- 1.5 full-course equivalents (FCE) in clinical, epidemiological, or basic science research methodology appropriate for clinical or public health practice.
- A research practicum (0.5 FCE) and successful completion of an oral examination of the research practicum.
- Upon completion of all program requirements, students are eligible for the graduate degree and for Specialty, Fellowship, or Board Certification in the chosen dental specialty. For further information, consult the Faculty of Dentistry Calendar or Web site.

Program Transfer - MSc to PhD

MSc students pursuing either of options 1 or 2, who are demonstrating excellent progress in all facets of their program, may apply to transfer from the MSc to the PhD program. Transfer time varies for students in the specialty training thesis option. The transfer examination will take place up to 18, and in exceptional circumstances, 24 months after entry into the MSc program for registrants in the MSc Thesis Option. Regulations governing such transfers are available from the Graduate Department of Dentistry.

Students registered in the specialty training course work only option will not be permitted to transfer to the PhD degree, but may apply to the PhD program following completion of the MSc degree.

Doctor of Philosophy

1. Full-Time Research Program

Minimum Admission Requirements
- Students are normally admitted to a four-year PhD program with an appropriate master's degree, or equivalent, with at least an A standing from a recognized university in a discipline appropriate to the intended field of doctoral study. However, under exceptional circumstances, the Department may admit a highly qualified student with an appropriate four-year Bachelor of Science degree in a discipline appropriate to the field of dentistry or a Doctor of Dental Surgery degree with at least an A standing from a recognized university.

Program Requirements
- Students undertake customized programs, approved by an advisory committee and the Graduate Chair of Dentistry, comprising advanced study and original research culminating in the defence of a thesis.
- Minimum course requirements - completion of the course DEN 1100Y Doctoral Seminars in Oral Health Sciences, plus an additional 2.5 full course equivalents (FCE) that includes the course DEN 1015H Introduction to Biostatistics.
- Exemptions may be granted for MSc course work from closely related disciplines. This includes students transferring from MSc to PhD programs. Programs of study for BSc students will normally include additional course work requirements.
- Although the minimum residency requirement is one year, it is the Department's expectation that students will normally remain on campus for four years.
- After 12 months and within 24 months of starting a PhD program, students must pass a qualifying oral examination to demonstrate an adequate capacity for oral health sciences research through previous work and will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
- Participate in all graduate research activities of the advisor's research group.
- Present at meetings and publish original research findings in timely fashion.
- Participate as members of departmental and student committees as applicable.
- Consult with the Graduate Chair of Dentistry who will appoint a committee to plan and arrange their course work and research programs. The committee and the Graduate Chair must approve the entire course of
study. The student's supervisor will chair the committee. The committee will closely monitor the student's ability to sustain satisfactory performance and will report annually to the Graduate Chair for approval and continuance of candidacy.

2. Full-Time Program Combined with Dental Specialty Training Option

The department offers a Doctor of Philosophy degree for exceptional dental graduates seeking to combine a PhD degree with advanced training in a clinical specialty. Applicants intending to train as clinician/scientists, aspiring to teaching and research careers in the dental field, are considered on an individual basis.

Minimum Admission Requirements

- Doctor of Dental Surgery degree with at least an A standing from a recognized university. Evidence of research experience or research potential is normally required.

Program Requirements

- Completion of an original research project culminating in the oral defence of a thesis.
- Completion of the course DEN 1100Y Doctoral Seminars in Oral Health Sciences, plus an additional 1.0 full-course equivalent (FCE) pertaining to the research component of the program, together with completion of clinical and didactic course work requirements as necessary to meet Canadian Dental Association accreditation requirements for the chosen clinical specialty that includes successful completion of the courses DEN1014H Clinical Epidemiology and Evidence-Based Care and DEN 1015H Introduction to Biostatistics.
- Consult with the Graduate Chair of Dentistry who will appoint a committee to plan and arrange their course and research programs. The committee and the Graduate Chair must approve the entire course and research component of the program.
- After 12 months and within 24 months of starting the PhD program, students must pass a qualifying oral examination to demonstrate an adequate capacity for oral health sciences research through previous work and will be examined on their thesis proposal and their breadth of knowledge relative to the research project.
- Participate in all graduate research activities of the advisor's research group.
- Present at meetings and publish original research findings in timely fashion.
- Participate as members of departmental and student committees as applicable.

The addition of the clinical and didactic courses for a clinical specialty will normally increase the amount of time for the PhD degree by two years, depending upon the particular clinical specialty undertaken. Program completion will be contingent upon completion of all requirements for the research and specialty training components of the program.

- Upon completion, students are eligible for the graduate degree and for Specialty, Fellowship, or Board Certification in one of the dental specialties. For further information, please consult the Faculty of Dentistry Calendar or Web site.

3. Flexible-Time Option

The Department offers a flexible-time PhD program for selected students whose career goal is a full-time academic position in a clinical discipline. Students concurrently establish their teaching and academic credentials. The major goal upon program completion is to enable students to compete for university tenure-stream professorial positions in their clinical science discipline.

The program is dedicated to research experience and, therefore, does not involve clinical training other than clinical research methodology. It entails completion of the research and course work requirements for the PhD degree half time, while teaching in a clinical discipline half time.

Minimum Admission Requirements

- School of Graduate Studies and Graduate Department of Dentistry admission requirements for entry to the PhD program.
- A professional degree equivalent to the University of Toronto DDS and a graduate degree equivalent to the University of Toronto MSc. Preference given to:
  - applicants who have completed specialty education equivalent to the standard required for licensure as a specialist by the Royal College of Dental Surgeons of Ontario and
  - applicants who hold a university appointment in Canada at an academic standard equivalent to the University of Toronto Lecturer.

Program Requirements

- Appropriate research supervision and advisory committee membership, customized plan of study, and timetable for the completion of the degree requirements, as approved by the Graduate Chair of Dentistry, will be in place at program commencement. The Graduate Chair monitors progress by review of completed advisory committee reports based on annual meetings of the student with the supervisory committee.
- Although the minimum residency requirement for the PhD is one year, the anticipated completion date for the flexible-time PhD program will be within five to six years from the registration date. The maximum time for completion will normally be eight years.
- Students are required to conduct research leading to completion and defence of a thesis and complete minimum course work requirements, which include

\(^a\) Courses which may continue over a program. The course is graded when completed.
DEN 1100Y Doctoral Seminars in Oral Health Sciences, plus an additional 2.5 full-course equivalents (FCE) that includes the course DEN 1015H Introduction to Biostatistics.

- Students must pass a qualifying oral examination 12 to 24 months after commencement to demonstrate an adequate capacity for oral health sciences research at the doctoral level.
- Participate in all graduate research activities of the advisor’s research group.
- Present at meetings and publish original research findings in timely fashion.
- Participate as members of departmental and student committees as applicable.

Courses
Not all courses are offered every year. The Department should be consulted each session as to course offerings.

DEN 1001Y and DEN 1100Y, designed to enhance critical analysis and presentation skills, involve seminars on faculty and student research, research ethics, critiques on student presentations, and participation in Research Day. These seminars are required as part of the program for all MSc and PhD students.

DEN 1001Y Master's Seminars in Oral Health Sciences (Credit/No Credit)
DEN 1002H Oral Pathology
DEN 1003H Preventive Dentistry
DEN 1006Y Seminars in Dental Public Health
DEN 1007H Oral Radiology
DEN 1011Y Advanced Seminars in Oral Pathology
DEN 1012Y Oral Medicine
DEN 1013Y Oral Surgical Pathology
DEN 1014H Clinical Epidemiology and Evidence-Based Care
DEN 1015H Introduction to Biostatistics
DEN 1016H Occlusion: Function and Dysfunction
DEN 1017H Temporomandibular Disorders
DEN 1022H Investigating Pathogenic Biofilms
DEN 1024H Experimental Methods in Caries Research
DEN 1051Y Oral Epidemiology
DEN 1052H Investigating Pathogenic Biofilms
DEN 1054H Experimental Methods in Caries Research
DEN 1060H Oral Physiology: Sensory and Neuromuscular Function
DEN 1070H Advances in Dental Materials Science
DEN 1080Y Biology of Connective Tissues
DEN 1081H Bone Interfacing Implants
DEN 1082H Biomaterials for Implant Treatment in Dentistry
DEN 1097Y Advanced Oral Radiology
DEN 1098H Reading Course in Oral Biology
DEN 1100Y Doctoral Seminars in Oral Health Sciences (Credit/No Credit)

Graduate Faculty

Full Members
Agur, Anne - BSc, MSc, PhD
Aubin, Jane - BSc, PhD
Barnett Foster, Debora E - BSc, MSc, PhD
Bressmann, Tim - MPH, PhD
Casper, Robert - MD
Clokie, Cameron - DDS, PhD
Cvitkovich, Dennis - BSc, MSc, PhD
Davies, John - BSc, BDS, PhD, DSc
Deporter, Douglas - DipPerio, DDS, PhD
Dostrovsky, Jonathan - BSc, MSc, PhD
Ellen, Richard - DDS
El-Mowafy, Omar - BDS, PhD
Filly, Edward - BSc, PhD
Finer, Yoav - MSc, MSc, DMD, PhD
Friedman, Shimon - DMD
Glogauer, Michael - PhD
Gong, Siew-Ging - MScD, BDS, PhD, PhD
Grynpas, Marc - MSc, PhD
Haas, Daniel - BSc, BScD, DDS, PhD, PhD
Hinz, J. Boris - PhD
Jokstad, Asbjorn - MS, DDS, PhD
Kenny, David - BSc, DDS
Lam, Ernest - BSc, MSc, DMD, PhD
Lawrence, Herenia - MSc, DDS, PhD
Limeback, Hardy - BSc, DDS, PhD
Locke, David - BSc, PhD (Associate Dean)
Manelson, Morris - PhD (Coordinator of Graduate Studies)
McCulloch, Christopher - BSc, DDS, PhD
Mock, David - DDS, PhD
Sandor, George - DDS, DRMED
Santerre, Paul - BSc, MSc, PhD
Seltzer, Ze’ev - DMD, BMEDSC
Sessle, Barry - BS, MSD, BDS, PhD
Seth, Arun - MS, PhD
Sherman, Philip - MD
Simmons, Craig - BSc, MSc, PhD
Tenenbaum, Howard - DDS, PhD

Members Emeriti
Bennick, Anders - DipPerio, MSc, DDS, PhD
Burgess, Ralph - BSc, MSc, DDS
Heersche, Johannes - BSc, PhD
Mayhall, John - BA, MA, DDS, PhD
Pilliar, Robert - BScD, PhD
Ross, Robert Bruce - MSc, DDS
Watson, Philip - DDS, BDS, MScD
Woodside, Donald - BSc, DDS, MScD
Zarb, George - BScD, MS, DDS

Associate Members
Anderson, James - BSc, DDS
Andrews, Paul - BSc, MSc, DDS
Baker, Gerald - DDS, MS
Bazilay, Issac - MS, DDS
Basrani, Bettina - PhD
Bradley, Grace - MSc, DDS
Burrows, Lori - BSc, BSc, PhD
Dao, Thuan - MSc, DMD, PhD
Daskalogiannakis, I. John - DIPORH, MSc, DDS
Dempster, Laura - BSCD, MSc, PhD
Diwan, Randa - DDS, PhD
El-Badrawy, Wafa - MSc, DDS
Fenton, Aaron - DipPerio, MS, DDS
Ganss, Bernhard - DRRERNAT
Goldberg, Michael - DipPerio, BSc, MSc, DDS
Holmes, Howard - MSc, DDS, DDS
Judd, Peter - BSc, MS, DDS
Kulkarni, Gajanan - LLB, MSc, BDS, PhD
Laing Gibbard, Leslie - BSc, BEd, MSc, MS, DDS, PhD
Laporte, Audrey - BA, MA, PhD
Leong, Iona - BSc, MSc, BDS
Levesque, Celine - BSc, MSc, PhD
Main, Patricia - DDPH, MSc, BDS, DDS
McComb, Dorothy - BDS, MScD
McComb, Richard - MSc, BDS
Metaxas, Angelos - DIPORH, MSc, DDS, DDSC
Peel, Sean - BSc, PhD
Pharoah, Michael - BSc, DDS
Saltzman, Brett - BA, MSc, DDS
Sigal, Michael - MSc, DDS
Sone, Eli - BSc, MS, PhD
Suri, Sanjay - BDS, MDS
Sutherland, Susan - BScN, MSc, DDS
Talwar, Reena - BSc, DDS, PhD
Tam, Laura - BSc, MSc, DDS
Tompson, Bryan - DDS
Degree Programs by Graduate Unit

Doctor of Medicine/Doctor of Philosophy
(Combined Program)

Faculty Affiliation
Medicine

Degree Programs Offered
Medicine – Combined MD/PhD

Overview
The MD/PhD program is offered jointly by the Faculty of Medicine and the School of Graduate Studies. Selected and highly qualified students have the opportunity to combine their medical school experience with intensive scientific training in a chosen field. Students in this program are eligible for financial support.

Students carry out research under the supervision of a faculty member at the University and should consult the appropriate department or institute regarding specific research programs.

Contact and Address
Web: www.utoronto.ca/mdphd
E-mail: mdphd.program@utoronto.ca
Telephone: (416) 978-8885
Fax: (416) 971-2132

MD/PhD Program
University of Toronto
Medical Sciences Building
Room 7205
Toronto, Ontario M5S 1A8
Canada

Degree Programs
Medicine

Combined Doctor of Medicine/Doctor of Philosophy

Minimum Admission Requirements
- Applicants must be accepted by the Faculty of Medicine and meet the requirements of the School of Graduate Studies and the department in which they intend to carry out their graduate studies.
- Master's students or first-year medical students are eligible to apply.

Program Requirements
- Applicants may pursue the dual degrees via an integrated or a sequential route.
- Integrated. Students with a four-year bachelor's degree enter the MD/PhD program and, within a period not exceeding six years, complete the requirements of the first two years of the MD program and all requirements of the PhD program. During this time a predetermined program of integration is pursued which provides time allocation for both medical school and graduate study. On completion of the PhD degree, students return full time to the medical program.
- Sequential. Students with a four-year bachelor's degree enter the medical program on a full-time basis. After 18 months of medical school, they proceed to full-time graduate work until completion of the PhD degree. Students then return to medical school to complete the last 2.5 years.
Drama

Faculty Affiliation
Arts and Science

Degree Programs Offered
Drama – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Sexual Diversity Studies
   • Drama, MA, PhD
2. Women and Gender Studies
   • Drama, MA, PhD

Overview
The Centre for the Study of Drama 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 theatre history, dramatic theory, and dramaturgy. Within the parameters of these fields, the Centre supports research in such areas as performance analysis and reception; Canadian, American, feminist and post-colonial theatre; Elizabethan and Restoration staging; historiography and performance; acting and modern staging theories and practices; and play development. Through affiliations with other graduate units, students may also take courses in drama and theatre from the departments of Classics; Comparative Literature; Curriculum, Teaching and Learning; English; French; German; Italian; Slavic; and Spanish. Access to courses from other departments relevant to a student’s particular research - e.g., in history, music, or anthropology - also may be arranged.

Graduate students build on the kind of foundation that would normally be laid in four years of undergraduate study with a concentration in dramatic literature. Theatre is an integral part of graduate work in the Centre and it takes place, for the most part, in the context of workshops, student productions, and co-productions at the Robert Gill and Studio theatres.

Application details are available on the Centre’s Web site and at http://apply.sgs.utoronto.ca.

Contact and Address
Web: www.graddrama.utoronto.ca
E-mail:
General: graduate.drama@utoronto.ca
Coordinator of Graduate Studies: gc.graddrama@utoronto.ca
Telephone: (416) 978-7980
Fax: (416) 971-1378
Applications received after February 1 may be too late for consideration. Contact the Graduate Coordinator for further information.

Applicants may be accepted into the PhD program via one of two routes:

- With a Master of Arts degree: University of Toronto MA in Drama, or the equivalent from a recognized university, with at least an A- average standing. Applicants who have taken the MA through the Centre must be recommended for further study by the instructors whose courses they have taken. Applicants holding the MA of this University in a subject other than drama, or its equivalent from another university, will be considered for admission to the PhD program in the light of their previous work and its relation to the Centre’s requirements; additional course work may be required.
- With a Bachelor of Arts degree: Exceptional students may be admitted directly to the PhD program from the BA with a minimum A- overall average. Such applicants will apply to the MA program, but indicate in a separate letter to the Drama Centre that they wish to be considered for direct admission to the PhD.

Applicants must arrange to send two supporting letters of recommendation to the Graduate Coordinator of the Centre. Admission will be conditional upon satisfactory recommendation.

Applications must be accompanied by a statement of research intent and curriculum vitae.

Program Requirements

- Students entering with a MA:
  - complete 4.0 approved full-course equivalents (FCE) with an average standing of at least A-.
  - The courses must include DRA 1011H Traditions of Performance Theory, DRA 1012H Twentieth-Century Theatre and Performance, and DRA 6000Y Research Seminar;
  - satisfy the Centre’s dramaturgical and theatre practice requirement by completing DRA 5001Y;
  - demonstrate reading knowledge of a language other than English by passing an approved language examination not later than the end of the second year of study. Students may also be asked to qualify in other program-related languages;
  - pass comprehensive examinations;
  - 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.
- Although the program has been designed for completion in four years, some students may require a longer period to complete all of the requirements.

- Students entering with a BA:
  - Complete 3.5 full-course equivalents (FCE) in addition to the PhD requirements listed above, including the theatre history requirement for a total of 7.5 FCE, and satisfy the Centre’s dramaturgical and theatre practice requirements as determined on admission.
  - Must maintain an A- average in their first 3.5 FCE in order to continue in the program.
  - With approval, students 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.

Course List

Not all courses listed will be offered every year. Registrants are advised to confirm course offerings by consulting the Centre’s Web site, updated periodically through mid-summer, and by communicating with the Graduate Coordinator.

Core Program
DRA 1001H History of the Theatre I
DRA 1002H History of the Theatre II
DRA 1003Y Introduction to Theatre, Drama, and Performance Studies
DRA 1011H Traditions of Performance Theory
DRA 1012H Twentieth-Century Theatre and Performance
DRA 1021H Dramaturgy
DRA 1032H “Liveness”: Performance, Mediation, and Virtuality
DRA 1051H Postcolonial Drama
DRA 1055H Performance Research: Sexual Performance
DRA 1099H Dramaturgy of Sound in Drama, Film, Performance Art, and Music
DRA 1105H Performing History
DRA 2011H Theatrical Performance and Reception
DRA 3019H Shakespeare in Modern Production
DRA 3021H Elizabethan Performance: History and Practice
DRA 3120H The Way of the Actress
DRA 3211H Performing the Body
DRA 3901H Topics in Theatre, Drama, and Performance
DRA 3902H Topics in Theatre, Drama, and Performance
DRA 3903H Topics in Theatre, Drama, and Performance
DRA 3904H Topics in Theatre, Drama, and Performance
DRA 4057H Women Script History
DRA 4063H Topics in Performance and Popular Culture
DRA 4090Y Directed Reading/Theatre Research
DRA 4091H Directed Reading/Theatre Research
DRA 5000Y Theatre Practice I
DRA 5001Y Theatre Practice II (Credit/No Credit)
DRA 6000Y Research Seminar (Credit/No Credit)
Cross-Listed Courses
The Graduate Centre for Study of Drama also cross-lists courses in drama, theatre, and performance offered by other graduate units of the University. These typically are:
- Classics
- Comparative Literature
- Curriculum, Teaching and Learning
- English
- French
- German
- Italian
- Slavic
- Spanish

A listing of courses, available during the academic year, appear on the Centre’s Web site which is updated in mid-summer. Students requesting courses from the above cross-listed 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.

Graduate Faculty

Full Members
- Ackerman, Alan - MA, PhD
- Ambros, Veronika - MA, PhD
- Armatage, Kay - BA, MA, PhD
- Astington, John - BA, MA, PhD
- Bancheri, Salvatore - BA, MA, PhD
- Barton, Bruce - BA, MA, PhD (Coordinator of Graduate Studies)
- Brown, Elspeth - MA, PhD
- Budde, Antje - PhD
- Clarke, George Elliott - PhD
- Cobb, Michael - BA, MA, AM, PhD
- Copeland, Nancy - BA, MA, PhD
- Corman, Brian - AB, AM, PhD
- De Kerckhove, Derrick - BA, MA, PhD
- Eisenbichler, Konrad - BA, MA, PhD
- Gallagher, Kathleen Marie - PhD
- Hutcheon, Linda - BA, MA, PhD
- Johnson, Stephen - BA, MA, PhD (Director)
- Justice, Daniel - BA, MA, PhD
- Keil, Charles - BA, MA, PhD
- Klausner, David - AB, PhD
- Kleber, Pia - BA, MA, MA, PhD
- Lancashire, Anne - BA, AM, PhD
- Lancashire, D Ian - BA, MA, PhD
- Lettieri, Michael - BA, MA, PhD
- Levenson, Jill - PhD
- Most, Andrea - BA, MA, PhD
- Parker, Mary Ann - BA, MM, PhD
- Pietropaolo, Domenico - BSc, MA, PhD
- Quayson, Ato - BA, PhD
- Revermann, Martin - PhD
- Rupp, Stephen - BA, MA, MPH, MA, PhD
- Schonberg, Michal - BA, MA, PhD

Members Emeriti
- Plant, Richard - PhD
- Sidnell, Michael - BA, MA, PhD

Associate Members
- Di Paolantonio, Mario - AM, PhD, PhD
- Filewod, Alan - PhD
- Freeman, Sarah Jane - PhD, PhD
- Georgis, Dina - PhD
- Hill, Colin - BA, MA, PhD
- Houston, Andrew - DPhil
- Katz, Leslie - BA, PhD
- King, Robert - AB, MA, PhD
- Knowles, Richard - DPhil
- Lopez, Jeremy - BA, MA, DPhil
- MacLean, Sarah - BA, MA, PhD
- Odom, Selma - PhD
- Pietropaolo, Damiano - AM
- Rankin, Katharine - BA, MA, PhD
- Ruti, Majut - BA, MA, PhD
- Sammond, Nicholas - BA, MA, PhD
- Syme, Holger Schott - PhD
- Testa, Bart - BA, MA
- Warner, Mary Jane - MA, PhD

Somigli, Luca - PhD
Speridakos, Paula - BA, MA, PhD
Ten Kortenaar, Neil - PhD
Thomson, H. Leslie - BA, MA, PhD
Trojanowska, Tamara - MA, PhD
East Asian Studies

Faculty Affiliation
Arts and Science

Degree Programs Offered
East Asian Studies – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Asia-Pacific Studies
   - East Asian Studies, MA
2. Sexual Diversity Studies
   - East Asian Studies, MA, PhD
3. South Asian Studies
   - East Asian Studies, MA, PhD

Overview
The Department of East Asian Studies offers programs in two fields: Classical East Asian and Modern East Asian.

Contact and Address
Web: www.chass.utoronto.ca/eas
E-mail: celia.sevilla@utoronto.ca
Telephone: (416) 416-978-7260
Fax: (416) 978-5711

Department of East Asian Studies
University of Toronto
Robarts Library
14-087, 130 St. George Street
Toronto, Ontario M5S 3H1
Canada

Degree Programs

East Asian Studies

Master of Arts

Minimum Admission Requirements
- Accepted under the general regulations of the School of Graduate Studies and the regulations of the department.
- Successful completion of a four-year University of Toronto BA degree, or its equivalent from a recognized university, normally in a Specialist or Major East Asian Studies program, with at least B+ standing in the final year.
- 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 a knowledge of the relevant languages.
- A sample of the applicant’s writing in English.
- Non-native speakers of English are required to take the TOEFL (Test of English as a Foreign Language). Applicants taking the paper-based TOEFL exam must achieve a minimum score of 600 and 5 on the TWE. Applicants taking the computer-based TOEFL exam must achieve a minimum score of 250 and 5 on the essay rating component. Applicants taking the internet-based TOEFL exam 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.
- Application deadline is December 1 for admission in the following September.

Program Requirements
- One year of full-time graduate study.
- Program may be completed either through non-language course work or through a combination of non-language courses and a thesis; normally 4.0 full-course equivalents (FCE) are required for students not writing a thesis, and 2.0 FCE for students writing a thesis.
- Courses selected in consultation with the Coordinator of Graduate Studies.

Doctor of Philosophy

Minimum Admission Requirements
- Accepted under the general regulations of the School of Graduate Studies and the regulations of the department.
- Normally the 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-. Departmental assessment may also permit registration directly from a B.A. 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 sample of the applicant’s writing in English.
• Non-native speakers of English are required to take the TOEFL (Test of English as a Foreign Language). Applicants taking the paper-based TOEFL exam must achieve a minimum score of 600 and 5 on the TWE. Applicants taking the computer-based TOEFL exam must achieve a minimum score of 250 and 5 on the essay rating component. Applicants taking the internet-based TOEFL exam 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.
• Application deadline is December 1 for admission in the following September.

Program Requirements
• 4.0 non-language full-course equivalents (FCE), selected in consultation with the Coordinator of Graduate Studies. 2.0 FCE must be completed in the first year of the program, with an average grade of at least A-. The remaining courses must be completed by the end of the second year of the program, maintaining an average of at least A-.
• Students are permitted to take some of their courses in other departments.
• A comprehensive qualifying examination is normally undertaken within three months of completion of course work and must be taken by June 15 of the third year of study.
• Demonstrated appropriate level of proficiency in two languages, other than English, relevant to their areas of study before undertaking qualifying examinations, the level of proficiency as well as the two languages to be determined by the department.
• After completing the comprehensive examination, students are required to produce a doctoral dissertation with the guidance of a supervisory committee. This process begins with the production of a dissertation prospectus to be approved by the committee. The completed dissertation must be defended at an oral examination.

Course List
The following courses may be offered by the department. Not all courses are offered every year. Please consult the department’s Web site for a current course listing.

Cultural Studies
EAS 1118H Translation and Modernity
EAS 1207H Welfare Society and Democratization in Korea
EAS 1424H Multitude, Labour Power, Population
EAS 1432H Korean Cultural Studies Seminar
EAS 1506H Aspects of Classical and Medieval Indian Culture through SANSKRIT Texts
EAS 1507H Ethnography of Multiculturalism: liberalism, civil society, identity politics
EAS 1603H Critical Studies of “Civil Society”: Centred on the Twentieth-Century History of Japan and Korea
EAS 1703H Anthropology of South Korea
EAS 1703H Ethnography of Neoliberalism with a Focus on East Asia
COL 3380H Globalization and Culture
COL 5040H Marx, Deleuze and Empire

History
EAS 1140Y From Republic to People’s Republic: The Chinese Revolution from 1895 to the Present
EAS 1297H Texts, Images, and Objects in East Asia
EAS 1411H Art and Archaeology of Early China
EAS 1412H Special Topics in Archaeology of Ancient China
EAS 1143Y Civilization in Medieval China
EAS 1173H,YModern Korean History Seminar
EAS 1174H,YRethinking Empire in East Asia
EAS 1425H Critique of Everyday Life and Capitalism
EAS 1427H On Contingency and Capitalism
EAS 1428Y Foucault & Marx
EAS 1675Y Topics in Chinese Social and Intellectual History 1500-1950
EAS 2008H Japan’s Imperial System
EAS 2020H Beyond Orientalism

Language
EAS 1101Y Introduction to Classical Chinese
EAS 1105Y Reading Japanese for Graduate Purposes (Credit/No Credit)
EAS 1301Y Modern Standard Japanese I (Credit/No Credit)
EAS 1302Y Modern Standard Japanese II (Credit/No Credit)
EAS 1303Y Modern Standard Japanese III (Credit/No Credit)
EAS 1304Y Modern Standard Japanese IVa (Credit/No Credit)
EAS 1305H Modern Standard Japanese IVb (Credit/No Credit)
EAS 1312Y Introduction to Manchu
EAS 1321H Intermediate Sanskrit Texts (formerly EAS 1105Y)
EAS 1379H The History, Structure and Politics of the Hindi Language
EAS 1500Y The Structure of the Classical Sanskrit Language (formerly EAS 2004Y Introduction to Sanskrit)
EAS 1501H,YIntermediate Sanskrit Texts (formerly EAS 1105Y)
EAS 1621Y Modern Standard Korean I (Credit/No Credit)
EAS 1622Y Modern Standard Korean II (Credit/No Credit)
EAS 1623Y Modern Standard Korean III (Credit/No Credit)
EAS 1624Y Modern Standard Korean IV (Credit/No Credit)
EAS 1801Y Modern Standard Chinese I (Credit/No Credit)
EAS 1802Y Modern Standard Chinese II (Credit/No Credit)
Degree Programs by Graduate Unit

**Linguistics and Pedagogy**
- EAS 1349Y Pedagogical Grammar of Japanese
- EAS 1352H Introduction to Japanese Linguistics: Syntax and Semantics
- EAS 1353H Theory and Practice of Japanese Language Instruction
- EAS 1452H Japanese Linguistics I

**Literature**
- EAS 1137H,Y Chinese Poetics
- EAS 1151H Chinese Poetry I
- EAS 1152H Chinese Poetry II
- EAS 1344Y Classical Japanese Poetry
- EAS 1345H Readings in Japanese Literary Criticism
- EAS 1408H Identity and Diaspora in Modern Taiwanese Literature
- EAS 1444H The City, Body, and Text in Modern Japanese Literature
- EAS 1502H Sanskrit Narrative Literature
- EAS 1503H Sanskrit Epic Literature
- EAS 1505H Buddhist Narrative Literature in Buddhist Hybrid Sanskrit
- JLA 1456H Japan As Seen By ?: Reference, Apparatus, Operation

**Philosophy and Religion**
- EAS 1228H Topics in Chinese Ethical Theories
- EAS 1226H Topics in Modern Chinese Philosophy
- EAS 1227H Topics in Chinese Religions
- EAS 1438H New Approaches to Classical Daoism
- EAS 1601Y Seminar in East Asian Buddhism
- EAS 1602Y Topics in Korean Thought
- PHL 2015H Confucianism
- PHL 2016H Taoism: Philosophy and Religion
- PHL 2017H Buddhism in China
- RLG 3423H Religion in the Japanese Tradition
- RLG 3713Y Hinduism and Politics

**Politics**
- POL 2416Y Politics and Society in Contemporary China

**Research Seminars**
- EAS 1100H,Y Special Topics in Chinese Studies
- EAS 1116H,Y Special Topics in Chinese Culture
- EAS 1150H,Y Reading and Major Research Paper
- EAS 1160H,Y Basic Topics in Chinese Culture
- EAS 1163H,Y Special Topics in Korean Studies
- EAS 1300H,Y Special Topics in Japanese Studies
- EAS 1313Y Japanese Source Materials and Reference Works

**Visual and Performing Arts**
- EAS 1229H Topics in Chinese Aesthetics
- EAS 1320Y Special Topics in Japanese Culture
- EAS 1323Y Readings in Japanese Documentary Source Materials
- EAS 1999Y East Asian Studies Bibliography, Reference, and Research Methodology

**Graduate Faculty**

**Full Members**
- Cazdyn, Eric - BA, MA, PhD
- Chin, Carol - BA, MA, PhD
- Crawford, Gary - BSc, MA, PhD
- Guisso, Richard Wl - DPhil
- Hsiung, Ping-Chun - PhD
- Johnson, Mayumi (Yuki) - BA, AM, PhD
- Kawashima, Ken - BA, MA, PhD
- Keirstead, Thomas - BA, MA, PhD
- Lam, Tong - BSc, MA, PhD
- Liu, Johanna Ch’ien-mei - BA, MA, MPH, PhD
- Luong, Hy Van - BA, PhD
- Meng, Yue - BA, MA, MA, PhD
- Purtle, Jennifer - BLitt
- Sakaki, Atsuko - PhD (Coordinator of Graduate Studies)
- Sandahl, Stella - MA, MA, PhD
- Sanders, Graham - BA, PhD
- Schmid, Andre - BA, BA, MA, PhD
- Shen, Chen - BA, PhD
- Shen, Vincent Tsing-song - PhD (Chair & Graduate Chair)
- Song, Je Sook - BA, PhD
- Tran, Nhung - MA, PhD

**Members Emeriti**
- Arntzen, Sonja - BA, MA, PhD
- Dolezelova, Milena - MA, PhD
- Donnelly, Michael - BSc, MA, PhD
- Falkenheim, Victor - AB, AB, MA, PhD
- Hoff, Frank - BA, MA, PhD
- Liman, Anthony - MA
- Lynn, Richard - BA, PhD
- Nakajima, Kazuko - BA, MA, MPH
- Schlepp, Wayne - BSc, BA, PhD
- Tsukimura, Reiko - BA, MA, PhD
- Uyenaka, Shuzo - BA, MSc, PhD
- Waterhouse, David - BA, LRAM, MA, MA

**Associate Members**
- Ahn, Juhn - BA, MA, PhD
- Peng, Ito - BSW, BSc, BA, PhD
- Poole, Janet - BA, AM, MPH, PhD
- Rupprecht, Hsiao-Wei - BA, MA, MLS, PhD
- Virag, Curie - AB, MA, PhD
- Wong, Joseph - BA, MA, PhD

168 East Asian Studies
Ecology and Evolutionary Biology

Faculty Affiliation
Arts and Science

Degree Programs Offered
Ecology and Evolutionary Biology – MSc, PhD

Programs Closed to Admission
Plant and Microbial Biology – MSc, PhD
Zoology – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomedical Toxicology
   • Ecology and Evolutionary Biology, MSc, PhD
2. Environmental Studies
   • Ecology and Evolutionary Biology, MSc, PhD
3. Genome Biology and Bioinformatics
   • Ecology and Evolutionary Biology, PhD

Overview
Ecology and Evolutionary Biology students may study in three major fields – Ecology, Evolution, and Integrative Biology. Within these fields, professors' research interests include anatomy/physiology, behaviour, behaviour genetics, bioinformatics, community/population/ecosystem/landscape/evolutionary ecology, conservation biology, developmental biology, genetics/genomics, microbiology, molecular evolution, plant biology, taxonomy/systematics and theoretical biology. Professors who supervise 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
E-mail: grad@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

Degree Programs

Ecology and Evolutionary Biology

Master of Science

Minimum Admission Requirements
• Applicants are accepted under the general regulations of the School of Graduate Studies.
• Four-year University of Toronto bachelor's degree, or its equivalent 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.
• Students will not be admitted until they have made arrangements to secure a research supervisor by contacting professors in the Department.

Program Requirements
• The MSc program is normally completed in 16 months (pending governance approval).
• Students must complete a 0.5 graduate full-course equivalent (FCE) chosen from courses offered; the Faculty Research Course is recommended.
• A thesis is completed under the direction of the student's supervisor, assisted by an advisory committee, and defended at a departmental oral examination.

Doctor of Philosophy

Minimum Admission Requirements
• Applicants are accepted under the general regulations of the School of Graduate Studies.
• Students will not be admitted until they have made arrangements to secure a research supervisor by contacting professors in the Department.
• There are three routes of entry to the PhD program:
  o Applicants already holding an MSc degree or its equivalent from a recognized university with an 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 may be accepted.
  o Applicants may be accepted first into the MSc program from a bachelor's program and, conditional upon evidence of research excellence as judged by the thesis supervisory committee, may transfer into the PhD program.
  o Exceptional applicants may be accepted for direct entry into the PhD with a BSc degree or equivalent, 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
• The PhD program is normally completed in four years. Exceptional students admitted to the PhD program without an MSc degree will be admitted into
a five-year program and will be required to complete course work equivalent to the master’s program in addition to the PhD course requirements.

- Students must complete 1.5 graduate FCE chosen from courses offered (2.0 graduate FCE for students entering without an MSc degree). Students transferring into the PhD program from the MSc may apply 0.5 graduate FCE towards the PhD course requirement.
- All students are examined 18 months into the program on both their mastery of concepts in ecology and evolutionary biology and a submitted research proposal.
- Students must deliver two public seminars in the Department based on their thesis research.
- Students must submit a thesis and defend it at a Final Oral Examination conducted by the School of Graduate Studies.

Course List
Not all courses are offered every year. Please refer to the Ecology and Evolutionary Biology Web site for a current list of course offerings.

Courses Offered at the Graduate Level Only

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEB 1002H</td>
<td>Advanced Research and Reading Course</td>
</tr>
<tr>
<td>EEB 1100H</td>
<td>Faculty Research Course</td>
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<tr>
<td>EEB 1210H</td>
<td>Advanced Statistics</td>
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<tr>
<td>EEB 1230H</td>
<td>Multivariate Statistics</td>
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<tr>
<td>EEB 1250H</td>
<td>Spatial Statistics</td>
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<tr>
<td>EEB 1310H</td>
<td>Philosophy and Methods</td>
</tr>
<tr>
<td>EEB 1320H</td>
<td>Ecology</td>
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<tr>
<td>EEB 1350H</td>
<td>Evolution</td>
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<tr>
<td>EEB 1360H</td>
<td>Behaviour</td>
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<tr>
<td>EEB 1420H</td>
<td>Special Topics in Ecology</td>
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<tr>
<td>EEB 1440H</td>
<td>Special Topics in Evolution</td>
</tr>
<tr>
<td>EEB 1470H</td>
<td>Special Topics in Integrative Biology</td>
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</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>
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<tbody>
<tr>
<td>EEB 1004H</td>
<td>Vertebrate Paleontology</td>
</tr>
<tr>
<td>EEB 1328H</td>
<td>Physiological Ecology</td>
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<tr>
<td>EEB 1330H</td>
<td>Systematic Botany</td>
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<tr>
<td>EEB 1337H</td>
<td>Families of Vascular Plants</td>
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<tr>
<td>EEB 1340H</td>
<td>Comparative Plant Morphology</td>
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<tr>
<td>EEB 1341H</td>
<td>Plant Anatomy</td>
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<tr>
<td>EEB 1459H</td>
<td>Population Genetics</td>
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<tr>
<td>EEB 1460H</td>
<td>Molecular Evolution</td>
</tr>
<tr>
<td>EEB 1468H</td>
<td>Limnology</td>
</tr>
</tbody>
</table>

Graduate Faculty

Full Members
Abrams, Peter - PhD
Agrawal, Anil - BSc, PhD
Andrade, Maydianne - BSc, MS, PhD
Baker, Allan - MSc, PhD
Baker, Robert - BSc, MSc, PhD
Barrett, Spencer - BSc, PhD
Boonstra, Rudy - BSc, PhD
Brooks, Daniel - BS, MS, PhD
Buck, Leslie - BSc, PhD
Campbell, Malcolm - DPhil
Carleton, Terence - BSc, MSc, PhD
Caron, Jean-Bernard - PhD
Caspersen, John - BA, PhD
Chang, Belinda - AB, PhD
Collins, Nicholas - BA, PhD
Currie, Douglas - BSc, PhD
Cutter, Asher - PhD
Cyr, Helene - BSc, MSc, PhD
Darling, DChristopher - MSc, PhD
Dickinson, Timothy - PhD
Eckenwalder, James - BA, PhD
Engstrom, Mark - PhD
Evans, David - PhD
Fitzpatrick, Mark - BS, MS, PhD
Fortin, Marie-Josee - MSc, PhD
Fullard, James - BSc, MSc, PhD
Fulthorpe, Roberta - BSc, MSc, PhD
Gibo, David - BA, PhD
Gross, Mart - BSc, PhD
Guttman, David - BS, PhD
Gwynne, Darryl - BSc, PhD
Jackson, Donald - PhD
Kohn, Linda - BS, PhD
Kotanen, Peter - PhD
Kronzucker, Herbert - PhD
Levine, Joel - BA, PhD
Lopez-Fernandez, Hernan - BS, PhD
Lovejoy, Nathan Richard - BSc, MS, PhD
Manne, Lisa - BS, MS, PhD
Mason, Andrew - MS, PhD
McLennan, Deborah - BSc, PhD
Moncalvo, Jean-Marc - PhD
Murphy, Robert - PhD
Reisz, Robert - BSc, MSc, PhD
Rising, James - BA, PhD
Rodd, F. Helen - PhD
Rowe, Locke - BSc, MS, PhD (Chair and Graduate Chair)
Sage, Rowan - PhD
Sage, Tammy - BA, MS, PhD
Short, Steven - PhD
Smith, Sandy - BAGRSC, MSc, PhD
Sokolowski, Marla - PhD
Sprules, W Gary - BSc, MA, PhD
Stefanovic, Sasa - MSc, PhD
Stinchcombe, John - BA, PhD
Thompson, Paul - PhD
Thomson, James - MS, PhD
<table>
<thead>
<tr>
<th>Members</th>
<th>Degree Programs by Graduate Unit</th>
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</thead>
<tbody>
<tr>
<td>Wagner, Helene - MSc, MSc, PhD</td>
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<tr>
<td>Weis, Arthur - BPhil, PhD</td>
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<tr>
<td>Williams, D Dudley - DIPED, BSc, MSc, PhD, DSc</td>
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<tr>
<td>Winterbottom, Richard - PhD</td>
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<tr>
<td>Wright, Stephen - BSc, MS, PhD</td>
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<td>Zimmerman, Ann - BA, PhD</td>
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<tr>
<td>Members Emeriti</td>
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<tr>
<td>Dengler, Nancy - BA, MS, PhD</td>
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<tr>
<td>Harvey, Harold - MSc, PhD</td>
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<tr>
<td>Jefferies, Robert - BSc, PhD</td>
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<tr>
<td>Mrosovsky, Nicholas - BA, PhD</td>
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<tr>
<td>Associate Members</td>
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<tr>
<td>Johnson, Timothy - BSc, MSc, PhD</td>
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<tr>
<td>Lester, Nigel Paul - BA, MSc, PhD</td>
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<tr>
<td>Minns, Charles - PhD</td>
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<tr>
<td>Moses, Alan - BA, PhD</td>
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<tr>
<td>Ridgway, Mark - MSc, PhD</td>
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<tr>
<td>Shuter, Brian - BSc, MSc, PhD</td>
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<tr>
<td>Somers, Keith - MSc, PhD</td>
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<tr>
<td>Walsh, Denis - BA, MPH, PhD</td>
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</tr>
</tbody>
</table>
Degree Programs by Graduate Unit

Economics

Faculty Affiliation
Arts and Science

Degree Programs Offered
Economics – MA, Combined JD/MA, PhD, Combined JD/PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Asia-Pacific Studies
   • Economics, MA
2. Dynamics of Global Change
   • Economics, PhD
3. Environmental Studies
   • Economics, MA
4. International Relations
   • Economics, MA
5. Management and Economics
   • Economics, PhD

Overview
The Department of Economics offers degree programs leading to the Master of Arts, Combined Juris Doctor/Master of Arts, and Doctor of Philosophy. Graduate program details appear on the department's Web site. For information on the program in Financial Economics consult the separate entry in this calendar.

Contact and Address
Web: www.economics.utoronto.ca
E-mail: ecograd@chass.utoronto.ca
Telephone: (416) 978-7169
Fax: (416) 978-6713

Department of Economics
University of Toronto
150 St. George Street
Toronto, Ontario M5S 3G7
Canada

Degree Programs

Economics

Master of Arts

Minimum Admission Requirements
• Four-year or honours degree (or equivalent) with at least a mid-B (75%) standing in the final year of the program.
• Successful completion of full-year courses in calculus, and in intermediate microeconomics, macroeconomics, and statistics.
• Meeting these minimum requirements does not imply automatic acceptance into the program.

Program Requirements
• Successful completion of the mathematics and statistics review.
• 4.0 full-course equivalents (FCE) including the core courses micro, macro and econometrics.
• Program is normally completed in two sessions.

Doctor of Philosophy

Minimum Admission Requirements
• Minimum B+ standing in a MA program in economics. Since admission is competitive, accepted applicants will normally have achieved a standing considerably higher than the minimum B+.

Program Requirements
• The PhD is a full-time program. Applicants must be registered as full-time students for a minimum period of three years.
• Students must maintain a minimum average of B+ throughout their course work.
• Year 1 - normally two half-courses in microeconomics (ECO 2020H and ECO 2030H), macroeconomics (ECO 2021H and ECO 2031H), and econometrics (ECO 2400H and ECO 2401H).
• Year 2 - students choose two field areas, taking the equivalent of three half-year courses in each.
• Second-year and third-year students must also participate in the full-year graduate research seminar (ECO 4060Y).
• Suitable graduate level courses taken by a student in the MA program in the Department of Economics may fulfill some of the course requirements of the PhD program.
• Demonstration of competence in the core of the discipline and in two of its special fields.
• A thesis based on original research.

Courses which may continue over a program. The course is graded when completed.
• Successful completion of comprehensive examinations in micro, macro, and the major field by the end of the second year of study.
• An original paper must be written in the second year and presented in the relevant workshop in the fall of the third year.
• By the spring of the third year, students must submit a proposal to a formal dissertation committee.

Combined Juris Doctor/Master of Arts
The JD/MA in Economics permits the completion of both degrees in three years rather than the four years it would take to acquire them independently.

Minimum Admission Requirements
• Applicants must gain independent admission to the JD program and the MA program in Economics before they may be considered for admission to the Combined JD/MA program.

Program Requirements
• Successful completion of the mathematics and statistics review.
• 6 half-courses in economics including the core courses, and 45 credits in law to satisfy the requirements as established for each degree program.

Combined Juris Doctor/Doctor of Philosophy
The Combined JD/PhD program is designed to attract highly qualified students who can benefit from the interaction between law and economics. This program allows students to complete the requirements of the JD degree and to reach all but the dissertation stage of the PhD at the end of four years.

Minimum Admission Requirements
• Applicants must gain independent admission to the JD program and the PhD program in Economics before they may be considered for admission to the Combined JD/PhD program.

Program Requirements
• Year 1 - students are admitted to the Faculty of Law and receive a deferred acceptance to the PhD program.
• Years 2 and 3 - students are registered in the Department of Economics and complete the requirements of the first two years of the PhD program.
• Year 4 - students complete their JD requirements and thereafter are registered full-time in the PhD program in the Department of Economics.

Course List
Not all courses are offered every year. Please refer to the department’s Web site for a current list.

Preliminary Courses
ECO 1010H Mathematics and Statistics Review for MA Regular Stream Students (Credit/No Credit)
ECO 1011H Mathematics and Statistics Review for MA Doctoral Stream and PhD Students (Credit/No Credit)

Core Courses in Economic Theory
ECO 2020H Microeconomic Theory I
ECO 2021H Macroeconomic Theory I
ECO 2030H Microeconomic Theory II
ECO 2031H Macroeconomic Theory II
ECO 2050H Applied Microeconomics
ECO 2051H Applied Macroeconomics
ECO 2060H Economic Theory—Micro (for MA students only)
ECO 2061H Economic Theory—Macro (for MA students only)

Advanced Microeconomic Theory and Mathematical Economics
ECO 2070H Workshop in Economic Theory (jointly with Institute for Policy Analysis) (Credit/No Credit)
ECO 2100H Mathematical Economics I
ECO 2101H Mathematical Economics II
ECO 2102H Topics in Microeconomic Theory

History of Economic Thought
ECO 2004H The History of Economic Thought
ECO 2005H Workshop in the History of Economic Thought (Credit/No Credit)
ECO 2006H Topics in the History of Economic Thought

Economic History
ECO 2234H Topics in North American Economic History
ECO 2250H Workshop in Economic History (Credit/No Credit)

International Economics
ECO 2300H International Trade Theory
ECO 2301H International Monetary Theory
ECO 2302H International Economics: Theory and Institutions
ECO 2303H International Monetary Economics
ECO 2304H Workshop in International Economics (jointly with Institute for Policy Analysis) (Credit/No Credit)
ECO 2305H Topics in International Finance
ECO 2310H Topics in International Trade

Econometrics
ECO 2400H Econometrics I
ECO 2401H Econometrics II
Degree Programs by Graduate Unit

**Economics**

- ECO 2402H Advanced Econometrics
- ECO 2403H Topics in Econometrics
- ECO 2404H Empirical Applications of Economic Theory
- ECO 2406H Workshop in Econometrics (Credit/No Credit)
- ECO 2408H Econometrics (for MA students only)
- ECO 2410H Applied Econometrics
- ECO 2411H Financial Econometrics

**Macroeconomics and Monetary Economics**

- ECO 2103H Topics in Macroeconomic Theory
- ECO 2500H Monetary Theory I
- ECO 2501H Monetary Theory II
- ECO 2502H Advanced Monetary Theory
- ECO 2503H Financial Economics I
- ECO 2504H Financial Economics II
- ECO 2505H Macroeconometric Models and Forecasting
- ECO 2506H Economics of Financial Risk Management
- ECO 2507H International Financial Markets
- ECO 2508H Risk Management for Financial Managers
- ECO 2550H Workshop in Monetary and Macroeconomics (jointly with Institute for Policy Analysis) (Credit/No Credit)

**Public Economics**

- ECO 2600H Public Economics I
- ECO 2601H Public Economics II
- ECO 2606H Topics in Public Economics
- ECO 2607H Workshop in Public Economics (jointly with Institute for Policy Analysis) (Credit/No Credit)
- ECO 2610H Health Economics
- ECO 2611H Empirical Welfare Analysis

**Economic Development**

- ECO 2700H Economic Development
- ECO 2701H Development Economics I
- ECO 2703H Development Economics II
- ECO 2704H Topics in Growth and Development
- ECO 2738H Economic Development of China
- ECO 2770H Workshop in Economic Development (Credit/No Credit)
- JPE 2408Y The Political Economy of Development

**Labour Economics**

- ECO 2800H Labour Economics I
- ECO 2801H Labour Economics II
- ECO 2802H Economics Inside Organizations
- ECO 2806H Workshop in Labour Economics (jointly with Institute for Policy Analysis and Centre for Industrial Relations) (Credit/No Credit)

**Industrial Organization**

- ECO 2900H Industrial Organization and Public Policy I
- ECO 2901H Industrial Organization and Public Policy II
- ECO 2909H Workshop in Industrial Organization (jointly with Institute for Policy Analysis) (Credit/No Credit)

**Law and Economics**

- ECO 3501H Economic Analysis of Law
- ECO 3504H International Trade Regulation (also LAW 285)

**Other Courses**

- ECO 2908H Environmental and Resource Economics
- ECO 3202H The Economics of Cities and Regions
- ECO 3500H Economics of Organizations and Contracts
- ECO 4050H Reading Course in an approved special field
- ECO 4051H Reading Course in an approved special field
- ECO 4060Y Graduate Research Seminar (Credit/No Credit)

**Graduate Faculty**

**Full Members**

- Aguirregabiria, Victor - BA, MSc, PhD
- Aivazian, Varouj - BS, MA, PhD
- Alexopoulos, Michelle - BSc, MA, PhD
- Anderson, Gordon - BA, MSc, PhD
- Baker, Michael - BComm, MA, PhD
- Benjamin, Dwayne - BSc, MA, PhD
- Brandt, Loren - BS, MS, PhD
- Carr, Jack - BCom, MA, PhD
- Casas, Francois - BA, MSc, PhD
- Damiano, Ettore Vincenzo - AB, MA, MPH, PhD
- Denny, Michael - BSc, PhD
- Dewees, Donald - LLB, BSCEE, PhD
- Duranton, Gilles - BSc, MSc, MA, PhD
- Erosa, Andres - BA, MA, PhD
- Faig, Miquel - MEC, PhD
- Foot, David - BEC, AM, PhD
- Fuster, Maria Luisa - BA, MA, PhD
- Gourieroux, Christian - PhD
- Gunderson, Morley - BA, MA, PhD
- Hamilton, Gillian - MEC, PhD
- Horstmann, Ignatius - PhD
- Hosios, Arthur - BEng, MEng, MA, PhD (Chair & Graduate Chair)
- Howson, Susan - BA, MSc, MA, PhD
- Jump, Gregory - BA, PhD
- Li, Hao - BS, PhD
- Maheu, John - BA, MEC, DPhil
- Mathewson, Gilbert - BCom, PhD
- McMillan, Robert - AB, DPhil
- Melino, Angelo - BA, PhD
- Moggridge, Donald - BA, MA, PhD
- Oreopoulos, Phillip - BA, MA, PhD

Courses which may continue over a program. The course is graded when completed.

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.
Osborne, Martin - BA, PhD (Associate Chair, Graduate Studies)
Pesando, James - BA, MA, PhD
Pitchik, Carolyn - BA, MSc, PhD
Reid, Frank - BA, MSc, PhD
Restuccia, Diego - BA, MA, PhD
Shi, Shouyong - BSc, MA, PhD
Siow, Aloysius - BA, PhD
Smart, Michael - BA, BA, PhD
Stabile, Mark - MA, MPH, PhD
Trebilcock, Michael - LLB, LLM
Trefler, Daniel - BA, MPH, PhD
Turner, Matthew - BA, AM, PhD
Van Biesebroeck, Johannes - DPhil
Yatchew, Adonis - BA, MA, PhD
Zhu, Xiaodong - PhD

Members Emeriti
Berry, R Albert - BA, PhD
Choudhry, Nanda - BA, MS, PhD
Cohen, Jon - BA, MA, PhD
Eddy, Scott - BS, PhD
Floyd, John - BComm, MA, PhD
Fuss, Melvyn - BSc, MA, PhD
Helleiner, Gerald - BA, PhD
Hollander, Samuel - BSc, PhD
Hynes, J Allan - BA
Munro, John - BA, MA, PhD
Rotstein, Abraham - BA, PhD
Watson, Andrew - BComm, BA, MA
Wilson, Thomas - BA, AM, PhD

Associate Members
Bobonis, Gustavo - BA, PhD
Brooks, Leah - PhD
Burda, Martin - BSc, MA, PhD
Duarte, Margarida - MEC, PhD
Goh, Chuang - BSc, MA, PhD
Indart, Gustavo - BA, MA, PhD
Kambouroff, Gueorgui - BA, MA, DPhil
Malinova, Ekaterina - BS, MA, PhD
Masson, Paul - PhD
Mechoulam, Stephane - BA, MA, PhD
Mondria, Jordi - BA, MA, PhD
Morrow, Peter - BA, MA, PhD
Park, Andreas - MEC, MPH, PhD
Serrano, Carlos - BS, MA, MS, PhD
Shi, Xianwen - PhD
Stewart, Colin - BSc, MPH, MA, MSc, PhD
Electrical and Computer Engineering

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Electrical and Computer Engineering – MASc, MEng, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomedical Engineering
   - Electrical and Computer Engineering, MASc, PhD
2. Optics
   - Electrical and Computer Engineering, MASc

Overview
The Edward S. Rogers Sr. Department of Electrical and Computer Engineering offers graduate courses and research opportunities in four programs of study. The Master of Applied Science and Doctor of Philosophy are research-based degree programs and require the completion of a thesis. The Master of Engineering and Master of Engineering in Telecommunications are course-based degree programs. Both the MEng and MEngTel programs may be taken on a full-time or part-time basis.

The Master of Applied Science program provides students with an opportunity to pursue advanced studies in the particular field of major interest and an opportunity to engage in research. The program requires full-time study for a minimum of one year, course work, and a thesis on a research project.

The Master of Engineering 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 degree requirements, consisting of courses and an optional MEng project, are structured to be completed in one year by a full-time student.

The Doctor of Philosophy program is designed for those exceptional individuals who intend to pursue a career in fundamental or applied research. The program requires course work and the successful completion of a research thesis.

The Department offers research in the following areas:
1. Biomedical Engineering
2. Communications
3. Computer Engineering
4. Electromagnetics
5. Electronics
6. Energy Systems
7. Photonics
8. Systems Control
Details available on the Department’s Web site at www.ece.utoronto.ca/research.htm

Contact and Address
Web: www.ece.utoronto.ca
E-mail: darlene.gorzo@utoronto.ca
Telephone: (416) 978-3122
Fax: (416) 971-2993

The Edward S. Rogers Sr. Department of Electrical and Computer Engineering
University of Toronto
Room 1107, Sandford Fleming Building
10 King’s College Road
Toronto, Ontario  M5S 3G4
Canada

Degree Programs
Electrical and Computer Engineering

Master of Applied Science

Minimum Admission Requirements
- Four-year University of Toronto 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
- Normally 2.5 graduate full-course equivalents (FCE) or 5.0 half-courses. Students whose undergraduate preparation does not include the study of subjects deemed to be necessary for research in the chosen field will be required to complete additional courses.
- 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.
- 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.
- During the first year of registration, students are required to attend the ECE Colloquium and complete JDE 1000H Ethics in Research.
Master of Engineering

Minimum Admission Requirements

- Four-year University of Toronto 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

- Normally comprise 4.5 graduate full-course equivalents (FCE) or 9.0 half-courses for applicants with adequate undergraduate preparation. At least 2.5 graduate FCE or 5.0 half-courses must be drawn from graduate courses offered by the Department of Electrical and Computer Engineering.
- All students must enrol in a field of study.
- Students may choose to complete an engineering project with an equivalent value of 1.5 FCE. Students choosing the project option will be required to complete a total of 3.0 FCE 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.
- The MEng degree program may be taken on a full-time or part-time basis.

Doctor of Philosophy

Minimum Admission Requirements

- University of Toronto master's degree (with thesis) in Electrical and Computer Engineering or its equivalent from a recognized university.
- An average grade equivalent to a University of Toronto B+ or better in a previous master's degree program.
- The Department must be satisfied of the student's ability to do advanced research before admission is granted.

Program Requirements

- Each student will be required to pass courses of study to satisfy the requirements of the general regulations and the specific requirements of the Department.
- Normally 2.5 full-course equivalents (FCE) or 5.0 half-courses not previously used for other degree credit.
- Thesis.
- Some outstanding students may be permitted to transfer directly from the MASc program to the PhD program without completing the MASc degree. Such students will be required to complete 5.0 FCE.
- During the first year of PhD registration, each student must pass a qualifying oral examination in the area of research.
- The program has been designed to enable students who have already completed a master's degree to complete all requirements within four years. More details are available in the Electrical and Computer Engineering Web site.
- During the first year of registration, students are required to attend the ECE Colloquium.
- During the first year of registration, students are required to complete JDE 1000H Ethics in Research, if they have not already done so in a previous University of Toronto master's program.

Course List

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 JDE 1000H Ethics in Research during their first year of registration.

The Department should be consulted each session as to course offerings.

Energy Systems

ECE 533H Power Electronics
ECE 1041H Numerical Solution of Field Problems
ECE 1042H High-Voltage Engineering
ECE 1049H Special Topics in Power Devices and Systems
ECE 1055H Dynamics of HVdc/ac Transmission Systems
ECE 1057H Static Power Converters I—Principles of Operation and Applications
ECE 1058H Static Power Converters II—Dynamics and Control
ECE 1059H Special Topics in Power Systems
ECE 1063H Application of Power Devices
ECE 1065H Custom Power Controllers
ECE 1066H Design of High-Frequency Switch-Mode Power Supplies (SMPS)
ECE 1067H Switch-Mode Power Supplies (SMPS)
ECE 1068H EMC in Power Engineering
ECE 1072H AC Drive System Dynamics
ECE 1081H Application of the Finite Element Method to Field Problems
ECE 1082H Mathematics for Advanced Electromagnetics
ECE 1083H Harmonic Balance and the Finite Element Method
ECE 1089H Special Topics in Electromagnetics

Electromagnetics

ECE 524H Microwave Circuits
ECE 1228H Electromagnetic Theory
ECE 1229H Advanced Antenna Theory
ECE 1236H Microwave and Millimetre-wave Techniques
ECE 1243H Topics in Electromagnetic Waves
ECE 1247H Nonlinear Optics
Electrical and Computer Engineering

Degree Programs by Graduate Unit

Electronics
ECE 1251H Matter Wave Interaction
ECE 1252H Introduction to Computational Electrodynamics
ECE 1253H Active Microwave Circuits
ECE 1254H Integrated Circuit Engineering
ECE 1333H Selected Topics in Semiconductor Physics
ECE 1334H Selected Topics in Solid State Electronics/VLSI Technology
ECE 1336H Semiconductor Physics
ECE 1352H Analog Circuit Design I
ECE 1360H Selected Topics in Instrumentation
ECE 1362H Filter Theory and Design
ECE 1364H Selected Topics in Solid State Circuit Design
ECE 1365H High Frequency Integrated Circuits
JEB 1365H Ultrasound: Theory and Applications in Biology and Medicine
ECE 1371H Advanced Topics in Analog Circuits
ECE 1373H VLSI Systems Design
ECE 1379H Introduction to Compound Semiconductor Devices
ECE 1384H Digital Circuit Design
ECE 1385H Selected Topics in VLSI Systems
ECE 1387H CAD for Digital Circuit Synthesis and Layout
ECE 1388H VLSI Design Methodology
ECE 1390H Selected Topics in Circuits and Systems
ECE 1391H Advanced Microelectronic Devices
ECE 1392H Integrated Circuits for Digital Communications
ECE 1393H Semiconductor Devices

Biomedical Engineering
JEB 1365H Ultrasound Theory and Applications in Biology and Medicine
JEB 1375H Practical Optimization
JEB 1433H Medical Imaging
JEB 1444H Neural Engineering
JEB 1447H Sensory Communications
JEB 1451H Cellular Bioelectricity
BME 1452H Signal Processing for Bioengineering

Photonics
ECE 525H Lasers and Detectors
ECE 527H Passive Photonic Devices
ECE 1433H Applied Optics
ECE 1448H Quantum Mechanics for Engineers
ECE 1449H Photonics I (Exclusion: students who have taken ECE 527H cannot take ECE 1449H)
ECE 1450H Photonics II
ECE 1460H Special Topics in Photonics
ECE 1461H Advanced Laser Processing
ECE 1467H Integrated Optical Circuit Design
ECE 1468H Electronic and Optical Properties of Quantum Dots
ECE 1469H Amorphous Semiconductors: Fundamentals and Applications

Communications
ECE 1500H Stochastic Processes
ECE 1501H Error Control Codes
ECE 1502H Information Theory
ECE 1505H Convex Optimization
ECE 1506H Communications and Signal Processing—Seminar I
ECE 1507H Communications and Signal Processing—Seminar II
ECE 1508H Special Topics in Communications
ECE 1511H Signal Processing
ECE 1512H Digital Image Processing and Applications
ECE 1514H Spectral Analysis and Array Processing
ECE 1515H Smart Antennas
ECE 1516H Visual Data Engineering
ECE 1517H Biometric Systems
ECE 1518H Seminar in Identity, Privacy, and Security
ECE 1520H Data Communications I
ECE 1521H Statistical Communication Theory
ECE 1522H Data Communications II
ECE 1523H Coded Modulation
ECE 1528H Special Topics in Data Communications
ECE 1529H Adaptive Systems for Signal Processing and Communications
ECE 1530H Multi-User Detection
ECE 1531H Quantum Information Theory
ECE 1540H Digital Telephony
ECE 1541H Communication Networks I
ECE 1542H Communication Networks II
ECE 1543H Mobile Communications Systems
ECE 1544H Optical Communication Networks
ECE 1545H Bridges and Routers
ECE 1546H Broadband Integrated Networks
ECE 1547H Content-Based and Network Security
ECE 1548H Advanced Network Architectures

Systems Control
ECE 557H Systems Control
ECE 1617H Large Scale System Theory and Control I
ECE 1635H Special Topics in Control I
ECE 1636H Control of Discrete-Event Systems I
ECE 1637H Control of Discrete-Event Systems II
ECE 1639H Analysis and Control of Stochastic Systems I
ECE 1640H Analysis and Control of Stochastic Systems II
ECE 1641H Multivariable Control Design
ECE 1643H Special Topics in Control II
Degree Programs by Graduate Unit

Electrical and Computer Engineering

Graduate Faculty

Full Members
Aarabi, Parham - BASc, MASc, PhD
Abdelrahman, Tarek - BSc, MSc, PhD
Adve, Raviraj - BTech, PhD
Alchison, J. Stewart - BSc, PhD
Amza, Cristiana - BS, MS, PhD
Anderson, Jason Helge - BSc, MASc, PhD
Baecker, Ronald - BS, MSc, PhD
Bardakjian, Berj - BSc, BED, MASc, PhD
Ben Amara, Foued - BSE, MSc, MSEE, PhD
Benhabib, Bensiyon - BSc, MSc, PhD
Broucke, Mireille - BSCEE, PhD
Brown, Stephen - BSE, MSc, PhD
Chan Carusone, Anthony - BASc, PhD
Chechik, Marsha - BS, MS, PhD
Chow, Paul - BASc, MASc, PhD
Dawson, Francis - BSc, BASc, MASc, PhD
De Lara, Eyal - BS, MS, PhD
Easterbrook, Stephen Michael - BSc, PhD
Eizenman, Moshe - BASc, MASc, PhD
Eleftheriades, George - Diplng, MSEE, PhD
Enright Jerger, Natalie - BSc, MSc, PhD
Fiume, Eugene - BM, MSc, PhD
Fotopoulos, Georgia - BSc, MSc, PhD
Francis, Bruce - BASc, MEng, PhD
Frey, Brendan - PhD
Genov, Roman - BS, MS, PhD
Goel, Ashvin - BTech, MS, PhD
Goldenberg, Andrei - BSc, MSc, PhD
Gulak, Glenn - BASc, MSc, PhD
Hatzinakos, Dimitrios - Diplng, MSc, PhD
Helmy, Amr - BSc, MSc, PhD
Herman, Peter - BEng, MSc, PhD
Hum, Sean - BSc, MSc, PhD
Hussein, Ali - BSc, BASc, MSc, PhD
Ilavani, Mohammad - BSc, MSc, PhD
Jacobsen, Hans-Arno - MCS, PhD
Johns, David Andrew - BASc, MASc, PhD
Kherani, Nazir - BASc, MASc, PhD
Kschischang, Frank - BASc, MASc, PhD
Kwong, Raymond - SB, SM, PhD
Lehn, Peter - BSCEE, MSc, DPhil
Leon-Garcia, Alberto - BS, MS, PhD
Levi, Ofir - PhD
Li, Baohun - BEng, MSc, DPhil
Liang, Ben - BS, MS, PhD
Lie, David - BASc, MS, DPhil
Liebeherr, Jorg - Diplng, PhD
Lim, Teng Joon - BEng, PhD
Lo, Hoi-Kwong - BA, MA, MS, PhD
Maggiore, Manfredi - MS, PhD
Mandell, Andreas - BSc, MA, MSc, PhD
Mann, Steve - PhD
Marowsky, Gerd - PhD
Martin, Kenneth - BASc, MASc, PhD
Mojahedi, Mohammad - BSE, MS, PhD
Moshovos, Andreas - BSc, MS, PhD
Nachman, Adrian - BSc, MA, PhD

Computer Engineering

ECE 516H Personal Cybernetics and Intelligent Imaging Systems
ECE 532H Digital Hardware
ECE 540H Optimizing Compilers
ECE 1718H Special Topics in Computer Hardware Design
ECE 1724H Special Topics in Software Engineering
ECE 1746H Distributed Systems
ECE 1747H Parallel Programming
ECE 1752H Real Time Systems and Software
ECE 1754H Compilation Techniques for Parallel Processors
ECE 1755H Parallel Computer Architecture and Programming
ECE 1756H Digital Hardware Design Using Programmable Logic Devices
ECE 1759H Advances in Operating Systems
ECE 1762H Algorithms and Data Structures
ECE 1765H File Structures and Storage Systems
ECE 1767H Design for Test and Testability
ECE 1768H Reliability of Integrated Circuits
ECE 1769H Behavioural Synthesis of Digital Integrated Circuits
ECE 1770H Trends in Middleware Systems—Selected Topics and Concepts
ECE 1771H Quality of Service
ECE 1772H Motion Analysis in Computer Vision
ECE 1773H Advanced Computer Architecture
ECE 1774H Sensory Cybernetics
ECE 1775H Microphone Arrays: Theory and Applications
ECE 1776H Computer Security, Cryptography and Privacy
ECE 1777H Computer Methods for Circuit Simulation

Master of Engineering

ECE 2500Y Master of Engineering Project
Najm, Farid - BE, MSEE, PhD (Chair & Graduate Chair)
Ng, Wai Tung - BSc, MASc, PhD
Pavel, Lacra - BEng, PhD
Plataniotis, Konstantinos - DipIng, ME, DE
Poon, Joyce - BASc, MS, PhD
Popovic, Milos - DipIng, PhD
Prodic, Aleksandar - BS, MSc, PhD
Qian, Li - BASc, MASc, PhD
Rose, Jonathan - BSc, MASc, PhD
Ruda, Harry - BSc, PhD
Sargent, Edward - BEng, PhD
Sarris, Konstantinos - BE, MS, PhD
Sedra, Adel - BSc, MASc, PhD
Sheikholeslami, Ali - BSc, MASc, PhD
Sousa, Elvino - BASc, MASc, PhD
Stefan, J. Gregory - BASc, MS, MASc, PhD
Stergiopoulos, Stergios - BSc, MSc, PhD
Stumm, Michael - MS, PhD
Sun, Yu - BS, MS, MS, PhD
Tate, Joseph - BS, MS, PhD
Trescases, Olivier - BASc, MASc, PhD
Truong, Kien (Kevin) - BASc, PhD
Valaee, Shahrokh - BSCEE, MSEE, PhD
Veneris, Andreas - BSc, MSc, PhD
Vicente, Joaquin Jose - BSc, MS, PhD
Voinigescu, Sorin - BS, MS, PhD
Wong, Willy - BSc, MSc, PhD (Associate Chair, Graduate Studies)
Yu, Wei - BASc, MSEE, PhD
Zaky, Safwat - BSc, BSc, MSc, PhD
Zhu, Jianwen - BS, MS, PhD

Members Emeriti
Balmain, Keith - BSc, MS, PhD
Blake, Ian - BASc, MASc, PhD
Bonert, Richard - DipIng, DE
Boulton, Peter - BASc, MASc, PhD
Cobbold, Richard - PhD
Davison, Edward - BASc, MA, PhD
Dewan, Shashi - BSc, ME, MASc, PhD
Iizuka, Keigo - BS, ME, MS, PhD
Janischewskyj, Wasyl - MASc
Joy, Michael - BSc, MASc, PhD
Kunov, Hans - MSc, PhD
Lavers, Douglas - BSc, MASc, PhD
Lee, E Stewart - BEng, MEng, PhD
Pasupathy, Subbarayan - BE, MPH, PhD
Salama, Andre - BASc, MASc, PhD
Semlyen, Adam - PhD, DrEng
Stermon, Gordon - DIC, MASc, PhD, DSc
Smith, Kenneth - BASc, MASc, PhD
Smith, Peter - BSc, MSc, PhD
Venetsanopoulos, Anastasios - BE, MASc, MPH, PhD
Vranesic, Zvonko - BASc, MASc, PhD
Wonham, Walter - BEng, PhD
Zukotynski, Stefan - MASc, PhD
English

Faculty Affiliation
Arts and Science

Degree Programs Offered

English – MA, Combined JD/MA, PhD

- Fields (MA/PhD):
  - American Literature
  - Aspects of Theory
  - Canadian Literature
  - Medieval Literature
  - Renaissance Literature
  - Restoration & Eighteenth-Century Literature
  - Romantic & Victorian Literature
  - Twentieth-Century British and Irish Literature
  - World Literatures in English
- Field (MA Only): Creative Writing

Collaborative Programs

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

1. Book History and Print Culture
   - English, MA, PhD
2. Editing Medieval Texts
   - English, PhD
3. Health Care, Technology and Place
   - English, PhD
4. Jewish Studies
   - English, MA, PhD
5. Sexual Diversity Studies
   - English, MA, PhD
6. South Asian Studies
   - English, MA, PhD
7. Women and Gender Studies
   - English, MA, PhD
8. Women’s Health
   - English, MA, PhD

Overview

One of the strongest and most diversified graduate English programs in North America, the University of Toronto’s Graduate English Department 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 40 graduate seminars offered every year and in the interdisciplinary conjunctions with other departments and collaborative programs. The MA and PhD programs offer a broad background in British, Canadian, Aboriginal, American, and Postcolonial literatures, a sophisticated command of current theoretical approaches, and exceptional support for significant research projects.

Contact and Address

Web: www.utoronto.ca/english
E-mail: 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

Degree Programs

English

Master of Arts

Fields
The MA in English degree is offered in ten fields:

- American Literature
- Aspects of Theory
- Canadian Literature
- Creative Writing
- Medieval Literature
- Renaissance Literature
- Restoration & Eighteenth-Century Literature
- Romantic & Victorian Literature
- Twentieth-Century British and Irish Literature
- World Literature in English

Minimum Admission Requirements
(All fields; see additional requirements for Creative Writing field below)

- B+ average 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.
- Applicants are encouraged to take the Graduate Record Examination and to have a report sent to the department.
- 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 on:
  - paper-based test: 600 and 5 on the TWE
  - internet-based test: 100/120 with at least 22/30 on the writing and speaking sections
- Admissions are selective; possession of minimum qualifications does not guarantee admission.
Program Requirements
(All fields except Creative Writing – see below)
- Program is usually completed in twelve months by students who are graduates of a four-year program in English or English and another subject at this University, or a similar program elsewhere.
- Students may elect to take the degree by course work only or, with permission of the Director, by course work and thesis. In either case, students must attain a B standing in each graduate course.
- MA by course work – this is the preferred option for most students, and especially for those going on to the PhD. Students are required to complete ENG 6954H Bibliography and 3.5 approved, full graduate courses or the equivalent in English.
- MA by thesis - The thesis option requires ENG 6954H Bibliography, two full graduate courses in English, or the equivalent, and a thesis of approximately 30,000 words on a topic approved by the department.

Field: Creative Writing

Additional Admission Requirements
- In addition to the above admission requirements for the MA program in fields pertaining to Literature and Theory, applicants wishing to enter the program in the field of Creative Writing must also submit a portfolio consisting of 20-25 pages of prose (drama, fiction, or creative non-fiction), and/or poetry. Details appear on the Department’s Web site.

Program Requirements
- Program is usually completed in 20 months by students who are graduates of a four-year major program in English.
- Completion of 2.0 full-course equivalents in English, ENG 8000H Introduction to Bibliography, ENG 6990Y Workshop in Creative Writing, and a supervised Writing Project (the equivalent of a thesis). All students must complete Workshop in Creative Writing in the first year of their program.
- Upon completion of course work, students undertake a book-length Writing Project in a genre of 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.

Combined Juris Doctor/Master of Arts in English and Law
The Combined Juris Doctor/Master of Arts in Law and English is designed for students interested in studying the intersections of law and literature. The combined program permits the completion of both degrees in three years rather than the four years it would take to acquire them independently.

Applicants must apply to each program separately; they should indicate on their applications that they wish to be considered for the Combined JD/MA program.

Students are registered in the Faculty of Law for all three years of the program and in the Department of English as well for the last two years. The MA in English must be completed by course work, not by thesis.

Minimum Admission Requirements
- Students are considered for the combined program after they have secured independent admission to the JD and MA programs.

Program Requirements
- Complete all requirements for the MA in English (course work) during their two years of registration in the Department of English, i.e., ENG 6954H (Bibliography), and 3.5 approved full-course equivalents (FCE) in English, including 1.0 from a set of designated “Law and Literature Program” courses.
- Complete 44 credits at the Faculty of Law, including “Law and Literature” or a designated alternative, and satisfy all other requirements of the JD program.
- Complete a Directed Research Project or Independent Study Course on a topic related to Law and Literature that may count toward either the Law or English requirements of the program.

Doctor of Philosophy

At press time, program requirements for the PhD program were pending final approval.

Fields
The PhD in English degree is offered in nine fields:
- American Literature
- Aspects of Theory
- Canadian Literature
- Medieval Literature
- Renaissance Literature
- Restoration & Eighteenth-Century Literature
- Romantic & Victorian Literature
- Twentieth-Century British and Irish Literature
- World Literature in English

Minimum Admission Requirements
- General Regulations of the School of Graduate Studies.
- Admission by one of two routes:
  o a four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, that includes at least seven full-course equivalents in English with an average grade of at least an A- in the applicant’s overall program or
  o a University of Toronto master’s degree in English, or its equivalent 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 English at an advanced level. Applicants who have taken the
Graduate Record Examination are encouraged to have a report sent to the department.
• Recommendations from two referees.
• A writing sample of not more than 5,000 words (approximately 15-20 pages).
• A statement of purpose.
• 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 on:
  o paper-based test: 600 and 5 on the TWE
  o internet-based test: 100/120 with at least 22/30 on the writing and speaking sections
• Admission to the PhD is based on the applicant's undergraduate and graduate record 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.
• Although it is possible for a student admitted on the basis of a master's degree, or a bachelor's degree, to complete the PhD program in English within four years, or five years, respectively, most students will require at least one additional year to complete all the requirements, including the thesis.

Courses
• The minimum course requirements for the degree are as follows.
  o Direct admission on basis of a four-year bachelor's degree – students must take a total of 8.0 FCE: ENG 8000H Introduction to Bibliography, ENG 9500Y Professional Development, ENG 9900H Professing Literature, and six additional full-course equivalents in English, as approved by the department. 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 a B; complete ENG 8000H Introduction to Bibliography plus 3.0 FCE in the first year of the program, with an average grade of at least an A−; and complete all remaining courses, except for ENG 9500Y Professional Development, by the end of the third year of the program, maintaining an average of at least an A.
  o Admission on basis of master's degree – students must take ENG 8000H Introduction to Bibliography, unless this or an equivalent course has already been taken; ENG 9500Y Professional Development; ENG 9900H Professing Literature; and three additional full-course equivalents in English, as approved by the department. 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 a B; and all course work by the end of the second year of the program, maintaining an average of at least an A−.
• Every student must take at least two full-course equivalents outside the field of specialization. The student is encouraged to combine these courses in 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 ENG 6954H Bibliography 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 ENG 240Y, or an equivalent full-year undergraduate course in Old English, with at least a B standing, is required either to take one of the following courses in the English language: ENG 1001H Old English I, ENG 6361H History and Structure of the English Language I, ENG 6362H History and Structure of the English Language – Post-1500, or ENG 6365H Diasporic Englishes. The requirement can also be satisfied by taking a special examination in Old English.

Language Requirement
• Demonstrated reading knowledge of French by May 31 of the third year of registration, in the case of a student admitted on the basis of a master's degree; otherwise, by May 31 of the fourth year 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 supervisory committee may require the student to qualify in other program-related languages as well.

General and Special Field Examinations
Students are required to pass two separate examinations: the General Examination and the Special Field Examination.
• The General Examination is designed to give students a broad knowledge of historical periods, works of literature, and critical concepts. It consists of two three-hour written papers covering the whole range of English literature, divided at 1700. A reading list is provided for this examination on the department Web site, and sample examinations are available in the department. Students entering the PhD program with a master's degree take both parts of the General Examination in September of their second year. Students entering the program directly from a bachelor's degree take the examination in September of their third year. A January sitting of the examination is designed to accommodate students with special circumstances. Under normal circumstances,
students are given two chances to pass the General Examination before termination from the program is recommended. Under certain circumstances, subject to the determination of a particular student’s academic standing and progress, the department may allow a third attempt.

• The Special Field Examination consists of a three-hour written examination, followed (approximately two weeks later) by a two-hour oral examination, both based on a reading list related to the student’s thesis area. This special field reading list is drawn up by the student in consultation with the supervisory committee. Once it receives final approval by the supervisory committee, the approved list is filed by the supervisor with the Associate Director, PhD. The Special Field Examination is to be taken approximately three months after the list is approved. Students are advised to consult the departmental guides on Special Field reading lists. Students admitted with a master’s degree should submit a reading list by the end of January of the second year and pass the exam by the end of the following April; students admitted with a bachelor’s degree fulfill the same requirements in their third year. On the recommendation of the examining committee, a second attempt is allowed.

• The student must have completed all requirements for the degree, exclusive of thesis research, by the end of the third year (fourth year for students admitted directly from a bachelor’s degree) 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 November 1 of the second year of registration, in the case of a student admitted on the basis of a master’s degree; otherwise, by November 1 of the third year of registration, the student must submit to the Associate Director, PhD a preliminary thesis proposal, approved by the prospective supervisor. The proposals are circulated to all graduate faculty in the department for information and comment. 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 February 15 of the second year of registration, in the case of a student admitted on the basis of a master’s degree; otherwise, by February 15 of the third year of registration. The student must submit a statement of thesis development (entailing an outline of chapters as well as a discursive component) no later than April 30 of the third year of registration, in the case of a student admitted on the basis of a master’s degree; otherwise, by April 30 of the fourth year 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 final oral examination is arranged by the department in collaboration with the School of Graduate Studies. The candidate should allow at least eight weeks from submission of the thesis in order for the department to complete the arrangements for the oral examination.

Course List

The following list of courses is subject to revision; further information, including course descriptions, 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 (e.g., Comparative Literature, Medieval Studies, Drama, Information Studies, 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.

ENG 1001H Old English I
ENG 1002H Old English II
ENG 1017H Body and Identity in Middle English Literature
ENG 1094H Discourses of Vernacular Spirituality
ENG 1550H Chaucer
ENG 2004H Metaphysical Poetry and the Passions
ENG 2006H Cultural Identity and Early Modern Theatre
ENG 2213H Social Distinction in the Renaissance
ENG 2280H Mimesis and Representation in the Renaissance
ENG 2467H Early Modern Nationalism and Milton’s England
ENG 2485H London Drama, 1180-1590
ENG 2536H Shakespeare
ENG 2727H Staging at the Globe and Blackfriars, 1604-1614
ENG 2933H Paradise Lost
ENG 3043H Drama from 1660-1710
ENG 3338H Satire and the Great Laughter Debate
ENG 3551H Poetical Literary Satire from Dryden to Byron
Degree Programs by Graduate Unit

ENG 3704H Eighteenth-Century Fiction: Politics and Form
ENG 4227H The Romantic Elegiac: The Formalism of Loss
ENG 4666H Romantic Things
ENG 4669H Nineteenth-Century Romance
ENG 4755H The Victorian Novel at Sea
ENG 4881H Victorian Realism and the Victorian Realist Novel
ENG 4960H Print and Politics in English Canada: 1837-1937
ENG 4994H Property and Personhood in American Literature
ENG 5044H Madness and Canadian Literature
ENG 5049H Liberalism, its Critics, and Literature
ENG 5077H The Dialogical Imagination
ENG 5106H Achebe and After
ENG 5112H Writing the South in South Asian Literature
ENG 5253H Simply Divine! The Novels of Waugh and Greene
ENG 5272H Tragedy and Melodrama in the Cold War
ENG 5277H Minimalism in American Poetry
ENG 5522H Modernism and Neomodernism
ENG 5785H Alice Munro and the Short Story
ENG 5793H Theories of Modernist Canadian Fiction
ENG 5901H New World African Literature
ENG 6166H Literary Biography
ENG 6197H Eyes Looking, Lips Moving: Theories of the Viewing/Reading Subject
ENG 6211H Archaeology of the Book
ENG 6365H Diasporic Englishes
ENG 6366H Diasporic Poetics
ENG 6503H Pluralism and American Literature
ENG 6508H The Singularity of Being
ENG 6529H The Animal and the Human
ENG 6552H Law and Literature
ENG 6841H Aesthetics and Politics
ENG 6949H Studies in Contemporary Writing
ENG 6950Y Workshop in Creative Writing
ENG 6954H Studies in Contemporary Writing
ENG 8000H Bibliography
ENG 9500H Professional Development
ENG 9900H Professing Literature

Graduate Faculty

Full Members
Ackerman, Alan - MA, PhD
Akbari, Suzanne - BA, MA, MPH, PhD
Austingon, John - BA, MA, PhD
Baird, John - PhD
Bewell, Alan - MA, PhD (Chair & Graduate Chair)
Brown, Russell - BA, MA, PhD
Chamberlin, J Edward - BA, PhD
Clarke, George Elliott - PhD
Cobb, Michael - BA, MA, AM, PhD
Corman, Brian - AB, AM, PhD
Cuddy-Keane, Melba - BA, MA, PhD
de Quehen, A Hugh - BA, BA, PhD
Downes, Paul - PhD
Dubois, Andrew - BA, PhD
Esch, Deborah - PhD
Esonwanne, Uzoma - BA, MA, PhD
Fenwick, Gillian - PhD
Galbraith, David - MA, PhD
Goldman, Marlene Beth - BFA, MA, PhD
Greene, Richard - PhD
Harvey, Elisabeth Ruth - PhD
Harvey, Elizabeth - PhD
Healey, Antonette - BA, MA, PhD
Henderson, Greig - BA, MA, PhD
Hutcheon, Linda - BA, MA, PhD
Jackson, Heather - BA, MA, PhD
Jaffe, Audrey - BA, PhD
Justice, Daniel - BA, MA, PhD
Klausner, David - AB, PhD
Lancashire, Anne - BA, AM, PhD
Lancashire, D Ian - BA, MA, PhD
Landon, Richard - BA, BLS
Leonard, Garry - BA, MA, PhD
Levene, Mark - BA, MA, PhD
Levenson, Jill - PhD
Li, Hao - BA, PhD
Li, Victor - BA, MA, PhD
Lynch, Deidre - BA, PhD
Magnusson, Lynne - BA, MA, PhD
Matus, Jill - BA, MA, PhD
Moleod, Robert - AB, MA, PhD
Morgenstern, Naomi - BA, MA, PhD
Mort, Andrea - BA, MA, PhD
Mount, Nick - AM, PhD
Murray, Heather - BA, MA, PhD
Neuman, Shirley - PhD
Nyquist, Mary - BA, MA, PhD
Orchard, Andrew - DPhil, PhD
Patrick, Julian - PhD
Percy, Carol - BA, MA, DPhil
Quayson, Ato - BA, PhD
Redekop, Magdalene - BA, MA, PhD
Reibetanz, John - PhD
Robins, William - BA, MPH, PhD
Salih, Sara - BA, DPhil
Schmitt, Emmett - BA, MA, PhD
Solecki, Samuel - BA, MA, PhD
Stevens, Paul - BA, MA, PhD
Stock, Brian - AB, PhD
Sullivan, Rosemary - BA, MA, PhD
Ten Kortenaar, Neil - PhD
Thomson, H. Leslie - BA, MA, PhD
Townsend, David Robert - BA, MA, PhD
Weisman, Karen - BA, PhD
Woodland, Malcolm - BA, MA, PhD

Members Emeriti
Adamowski, Thomas - PhD
Allen, Peter - BA, MA, PhD
Asals, Frederick - AB, MA, PhD

English 185
Auster, Henry - BA, MA, PhD
Bentley (Jr), Gerald - BA, BLitt, DPhil
Bruckmann, Patricia - PhD
Cameron, Elspeth - BA, MA, PhD
Chambers, Douglas - PhD
Cook, Eleanor - PhD
de Groot, Hans - MA, PhD
Domville, Eric William - BA, PhD
Duffy, Dennis - AB, MA, PhD
Dutka, JoAnna - BA, MA, PhD
Flahiff, Frederick - BA, PhD
Graziani, Rene’lc - BA, MA, PhD
Halewood, William - AB, MA, PhD
Hayne, Barrie - BA, AM, PhD
Howard, William - BA, PhD
Jackson, James - BA, MA, AM, PhD, PhD
Johnston, Alexandra - PhD
Kirkham, Michael - BA, MPH
Leggatt, Alexander - BA, MA, PhD
Maccallum, Hugh - PhD
Macpherson, Jay - PhD
Marker, Frederick - AB, DFA
Millgate, Jane - PhD
Millgate, Michael - BA, MA, PhD
Parker, Brian - PhD
Rigg, Arthur George - BA, MA, DPhil
Saddiemyer, Ann - PhD, DLitt
Sidnell, Michael - BA, MA, PhD
Visser, Colin - BA, BLitt, PhD
Warkentin, Germaine - PhD

Associate Members
Baker, Deirdre - BA, MA, PhD
Blaney, Peter - BA, PhD
Bolus-Reichert, Christine - BPhil, AM, PhD
Campbell, Christian - BA, MPH, PhD
Columpar, Corinn - BA, PhD
DeLombard, Jeannine - AB, AM, DPhil
Dickie, Simon - BA, MA, PhD
Dolan, Neal - BA, PhD
Dooley, Ann - BA, MA, PhD
Gillespie, Alexandra - BA, BSc, PhD
Hill, Colin - BA, MA, PhD
Lamb, Susan - BA, AM, DA
Larson, Katherine - BMus, AB, MPH, PhD
Lopez, Jeremy - BA, MA, DPhil
MacLean, Sarah - BA, MA, PhD
Maurice, Alice - BA, DPhil
Rubright, Marjorie - AB, MA, DLitt
Rut, Mary - BA, MA, PhD
Sammond, Nicholas - BA, MA, PhD
Seitler, Dana - BA, MA, PhD
Syme, Holger Schott - PhD
Warley, Christopher - BA, MA, DPhil
White, Daniel - BA, AM, DPhil
Wilson, Sarah - BA, MA, PhD
Xie, Ming - PhD
Yu, Timothy - AB, PhD
Environment

Faculty Affiliation
Arts and Science
School of Graduate Studies

Degree Programs Offered
Environmental Science – MEnvSc

Overview
The Centre for Environment (CFE) provides opportunities for an interdisciplinary approach to environmental studies at the University of Toronto. It has both teaching and research functions. Its faculty members are cross-appointed from several departments including engineering, physical sciences, health sciences, biological sciences, forestry, social sciences, and the humanities.

A 12-month professional course-work Master of Environmental Science (MEnvSc) degree program is offered at the University of Toronto Scarborough as a program of the Centre for Environment. All courses within the program fall within the designated major field of study: Biophysical Interactions in Terrestrial and Aquatic Systems. Although the program base is broad, a major focus for training professionals is understanding the flux of contaminants through surface and sub-surface environments and the methods/solutions needed to remediate contaminated or damaged environmental systems.

The program is committed to the development of well-trained practitioners in environmental science to meet the needs primarily of industry and government. The program is designed for both newly graduated students and existing professionals in industry and government agencies. The training is also designed to allow students to pursue PhD studies in the environment.

Contact and Address

Environmental Science
Web: www.utsc.utoronto.ca/envsci/menvsci/
Email: menvsc@utsc.utoronto.ca
Telephone: (416) 287-7357
Fax: (416) 287-7204

Graduate Program Assistant
Department of Physical and Environmental Sciences
University of Toronto at Scarborough
Room S639A, 1265 Military Trail
Toronto, Ontario M1C 1A4
Canada

Degree Programs

Environmental Science

Master of Environmental Science
At press time, admission requirements for the MEnvSc program were pending final approval.

The MEnvSc program offers three streams:
1. Research
2. Internship
3. Part-time studies

Minimum Admission Requirements
• Students are expected to satisfy all requirements for entry into the School of Graduate Studies at the University of Toronto within a competitive selection process. Applicants educated outside Canada should pay particular attention to the English language competency requirements.
• Four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, either in science or engineering with a minimum mid-B grade average in the last two years of the undergraduate program. Science background should contain chemistry, physics, calculus, and biology. Students with small deficiencies in these basic science courses will be considered. Those students lacking one or more essential background courses may be required to take additional courses prior to admission.
• Applicants must submit a written statement explaining their objectives for entering the program and the suitability of their background. Appropriate postgraduate work experience, such as in industry, will be considered as part of the admission application.

Program Requirements
• In all three streams, course work consists of 5.5 full-course equivalents (FCE).
• It is anticipated that students will complete all instructional courses in two sessions and will complete field and research-focused courses as well as the internship during the summer.

Course List

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENV 1100H</td>
<td>Advanced Seminar in Environmental Science</td>
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<tr>
<td>ENV 1101Y</td>
<td>Research Paper in Environmental Science</td>
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<tr>
<td>ENV 1102H</td>
<td>Analytical Chemistry for Geoscientists</td>
</tr>
<tr>
<td>ENV 1103H</td>
<td>Air and Water Quality Sampling and Monitoring</td>
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<tr>
<td>ENV 1104H</td>
<td>Methods for the Detection of Pathogens</td>
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<td>ENV 1105H</td>
<td>Soil Contamination Chemistry</td>
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<td>ENV 1106H</td>
<td>Geology and Geophysics of the Shallow Subsurface</td>
</tr>
<tr>
<td>ENV 1107H</td>
<td>Remediation Methods</td>
</tr>
<tr>
<td>ENV 1108H</td>
<td>Environmental Science Field Camp</td>
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</tbody>
</table>
ENV 1109H Advanced Techniques in Geographic Information Systems
ENV 1110H Sediment and Contaminant Transport in Aquatic Systems
ENV 1111H Freshwater Ecology and Biomonitoring
ENV 1112H Boundary Layer Climates and Contaminant Fate
ENV 1113H Groundwater Hydrochemistry and Contaminant Transport
ENV 1114H Directed Readings in Environmental Science I
ENV 1115H Directed Readings in Environmental Science II
ENV 1116Y Internship
ENV 1117H Climate Change Impact Assessment
ENV 1118H Fundamentals of Ecological Modelling
ENV 1119H The Dynamics of Contaminant Dispersal in Fluids
ENV 1121H Modelling the Fate of Organic Chemicals in the Environment
ENV 1122H Global Environmental Security and Sustainable Development
ENV 1123H Environmental Regulations
ENV 1124H Environmental Project Management
ENV 1125H Contaminated Site Remediation

Graduate Faculty

Full Members
Abbatt, Jonathan - BSc, PhD
Adams, Barry - BSc, MS, PhD
Allen, D Grant - BASc, MASc, PhD
Andrews, Robert - BASc, MASc, PhD
Archontitis, Georgios - BSc, MSc, DSCA
Barrett, Spencer - BSc, PhD
Bernstein, Steven - PhD
Blake, Terence - DipFOR, BScF, STB, MF, PhD
Boland, Alana - BA, MA, PhD
Brannon, Brian - BA, MSc, PhD
Bunce, Michael - BA, PhD
Byer, Philip - BS, MS, PhD
Chalin Clark, Catherine - BSN, MA, MDiv, PhD
Chen, Jing - BSc, PhD
Cole, Donald - MSc, MD
Conway, Tenley - BS, MS, PhD
Cooper, Paul - BEd, BSc, MSc, PhD
Corey, Paul - BSc, MA, PhD
Cormack, Donald - BASc, MASc, PhD (Program Director, Environmental Science)
Cowling, Sharon - BSc, MSc, PhD
Cunningham, Hilary - PhD (Coordinator of Graduate Studies)
Daniere, Amrita - AB, PhD
Dei, George JS - BA, MA, PhD
Dewees, Donald - LLB, BSCOE, PhD
Diamond, Miriam - LLB, MSc, PhD
Edwards, Elizabeth - BEng, PhD
Eichler, Margrit - MA, PhD, LLD
Engstrom, Mark - PhD
Evans, Gregory - PhD
Eyles, Nicholas - BSc, MSc, PhD, DSc
Fulthorpe, Roberta - BSc, MSc, PhD
Gough, William - BSc, MSc, PhD
Gross, Max - BSc, PhD
Harvey, Leslie - BSc, MSc, PhD
Holness, D Linn - MHSc, MD
Howard, Kenneth - BSc, MSc, PhD
Jia, Charles - BEng, MEng, PhD
Kant, Shashi - BE, MA, PhD
Karney, Bryan - BSc, MEng, PhD
Kennedy, Christopher - BEng, MEC, MBA, MASc, PhD
Knowles, J Gary - MS, EdD
Mabury, Scott - BS, PhD
MacDowell, Laurel - BA, MSc, PhD
Maclaren, Virginia - BA, MRP, MSc, PhD
Maclean, Heather - BSc, EdD
MacLean, Heather - BASc, MASc, MBA, PhD
Malcolm, Jay - BSc, MSc, PhD
Martell, David - BASc, MASc, PhD
McCarney, Patricia - BA, MCP, PhD
Miall, Andrew - BSc, PhD
Miller, Eric - BASc, MASc, PhD
Mitchell, Carl - PhD
Moore, GW Kent - BSc, PhD
Munro, D Scott - BSc, MSc, PhD
Murphy, Jennifer - BCH, DCHEM
Murphy, Michelle - BA, PhD
Poland, Blake - BA, PhD
Price, Anthony - BSc, MSc, PhD
Prudham, Scott - BASc, BA, MA, PhD
Reeve, Douglas - BSc, MASc, PhD
Rodd, F. Helen - PhD
Sage, Rowan - PhD
Sain, Mohini - PhD
Sandbrook, Richard - BA, MA, DPhil
Sass-Kortsak, Andrea - BSc, MHSc, PhD
Sawchuk, Lawrence - BA, MA, PhD
Scharper, Stephen - MTh, PhD
Sherwood Lollar, Barbara - PhD
Sieciechowicz, Krystyna - BA, MA, PhD
Silverman, Frances - PhD
Simpson, Andre - BSc, PhD
Simpson, Myrna - BS, DPhil
Skogstad, Grace - DRRERPOL
Smith, C. Tattersall - BA, MS, PhD
Smith, Sandy - BAGRSC, MSc, PhD
Stabile, Mark - MA, MPH, PhD
Stefanovic, Ingrid - BA, MA, PhD (Director)
Strong, Kimberly - PhD
Tarlo, Susan - MBBS
Timmer, Victor - BScF, MScF, PhD
Upshur, Ross Edward - BSc, BA, MA, MD
Vanderburg, Willem - BASc, MASc, PhD
Wakefield, Sarah - BA, MA, PhD
Walsh, Denis - BA, MPH, PhD
Wania, Frank - MPH, PhD
Wells, Mathew - BS, DPhil

188 Environment
Wells, Peter - BScPhm, DP
White, Rodney - BA, MSc, PhD
Williams, D Dudley - DIPED, BSc, MSc, PhD, DSc

Members Emeriti
Aird, Paul - BSc, MS, PhD
Bryan, Rorke - BA, PhD
Burton, Frances - BSc, MA, PhD
Cunningham, Frank - BA, MA, PhD
Greenwood, Brian - BSc, PhD
Regier, Henry - BA, MS, PhD
Roy, Dibyendu - BSc, MA, DPhil
Stren, Richard - BA, MA, PhD
Sumner, L Wayne - BA, MA, PhD
Whitney, Joseph - BA, PhD
Williams, George - BSc, DSc, DSc

Associate Members
Ambachtsheer, Jane - BA, MA
Basiliko, Nathan - PhD
Bass, Bradley - BSc, MSc, PhD
Bowman, Kerry - BA, BSW, MSW, PhD
Chiotti, Quentin - BA, MA, PhD
Dooley, James - BASc, MASc, PhD
Green, Andrew - LLB, BA, LLM, MA, PhD
Grima, Angelo - BA, MA, PhD
Hosein, H Roland - BSc, MSc, PhD
Kenney, Andrew - BSc, MSc, PhD
Labatt, Sonia - BA, MA, PhD
Macdonald, Douglas - PhD
McGeachie, Susan - BA, MBA
Mirza, Monirul - BSE, MEng, PhD
Munn, Robert - BA, MA, PhD
Murck, Barbara - AB, PhD
O’Hara, Dennis - BA, MDiv, PhD
Ratto, Matthew - PhD
Savan, Beth - BSc, PhD
Smith, Lesbia - BS, MD
Wagner, Helene - MSc, MSc, PhD
Wilson, Kathleen - AB, AM, PhD
Woodland, Cindy - PhD
European, Russian, and Eurasian Studies

Faculty Affiliation
Arts and Science

Degree Programs Offered
European, Russian, and Eurasian Studies
– MA, JD/MA

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Ethnic and Pluralism Studies
   • European, Russian and Eurasian Studies, MA

Overview
The Master of Arts program in European, Russian and Eurasian Studies (MA ERES) 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 specialisation in the European, Russian and Eurasian area.

The Combined Juris Doctor/Master of Arts Program provides specialised professional training for those seeking a career in law in the changing environment of the post-communist world. Firms selling or manufacturing in the region need 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, Russian and Eurasian Studies.

Contact and Address
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Telephone: (416) 946-8938
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Centre for European, Russian, and Eurasian Studies
Room 125N
University of Toronto
Munk Centre for International Studies
1 Devonshire Place
Toronto, Ontario M5S 3K7
Canada

Degree Programs

European, Russian, and Eurasian Studies

Master of Arts

Minimum Admission Requirements
• Applicants are accepted under the general regulations of the School of Graduate Studies.
• 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. 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
• Minimum of two sessions of full-time graduate study.
• Students will be required to take 6.0 full-course equivalents (FCE) as follows:
  o 2.0 FCE in a discipline chosen by the student as his or her major discipline.
  o ERE2001H, taken in the first year of the program.
  o ERE 2000Y, the interdisciplinary core course, taken in the second year of the program. As part of ERE2000Y, each student must write a 30-40 page master's essay, based on original research.
  o The remaining 2.5 FCE must be drawn from at least two disciplines other than the major discipline.

Combined Juris Doctor/Master of Arts (European, Russian, and Eurasian Studies)

Minimum Admission Requirements
• Applicants must separately apply to and be accepted by both the JD program and the MA (European, Russian, and Eurasian Studies) programs. They must satisfy the normal admission requirements for each program.
• Applicants who have completed a year in the European, Russian, and Eurasian Studies master's program or the first year of the JD can apply for admission to the combined program.

Program Requirements
• Year 1 - Students are admitted to the Faculty of Law and receive deferred admission to the MA program in European, Russian, and Eurasian Studies. The first year of study will consist of requirements for the first year of the JD.
• Years 2, 3, and 4 - Students pursue credits in Law as well as in European, Russian, and Eurasian Studies.
• The program allows students to receive the combined degree in four years of study instead of the five years needed to take the degrees separately.

**Course List**

Not all courses are offered every year. Consult the centre and individual departments for course availability.

**Required**
- ERE 2000Y Research Seminar
- ERE 2001H Gateway Pro-Seminar to European, Russian, and Eurasian Studies

**Optional**
- **Anthropology**
  - ANT 5146H Colonial and Postcolonial Discourses
  - ANT 6020H The Political Economy of Global/Local Dialectics
  - JSA 5147H Language, Nationalism and Post-Nationalism

- **Comparative Literature**
  - COL 5027H Memory, Trauma, and History
  - COL 5031H Russian Avantgarde Concepts in Art and Literature: Symbolism, Futurism, Constructivism, Formalism

- **Economics**
  - ERE 1198H Europe’s Eastward Enlargement

- **Germanic Languages and Literatures**
  - GER 1200H Middle High German
  - GER 1300H Cultural History of the German Language
  - GER 1470H Goethe in Context
  - GER 1661H Modernism in Context
  - GER 1772H The Politics of the Non-Fiction Film
  - GER 1780H Topics in German Visual Culture
  - GER 1830H Topics in German Intellectual History
  - JGC 1750H Modernity and Its Discontents

- **History**
  - ERE 1186H The Past As Prologue: East Central and Southeastern Europe in the Interwar Period
  - ERE 1191H Contemporary Southeastern Europe
  - HIS 1279H World War II in East Central Europe (joint graduate/undergraduate)
  - HIS 1280Y History of Soviet Cinema (joint graduate/undergraduate)
  - HIS 1281H Experiences of Real Socialism
  - HIS 1282H Totalitarian Culture
  - HIS 1283H War, Plague and Hunger in the Early Modern Baltic
  - HIS 1284H The Baltic World
  - HIS 1285Y The Ukrainian National Revival
  - HIS 1287H Polish Jews Since the Partitions of Poland
  - HIS 1288H Age of Experiments
  - HIS 1291H Topics in Russian and Soviet Social History
  - HIS 1292H The Russian Revolution
  - HIS 1293Y Kievian Rus’
  - HIS 1295H Soviet History Seminar
  - HIS 1297H Problems of Political Survival in Eastern Europe Since 1848
  - HIS 1298H Problems in the Social and Cultural History of Imperial Russia
  - HIS 1299H Topics in Russian Intellectual History
  - JHP 1289Y Twentieth-Century Ukraine
  - JHP 2301Y Linguistic and Cultural Minorities in Europe

- **Political Science**
  - ERE 1184H Polls and Public Opinion in Post-Communist Countries
  - ERE 1188H European Identities: Ethnicity, Citizenship, and Culture
  - ERE 1192H Majorities and Minorities in Southeastern Europe
  - ERE 1194H State and Society in Post-Soviet Central Asia
  - ERE 1199H Security, Sovereignty, and Great Power Politics in Central Asia
  - ERE 2001H Gateway Pro-Seminar to European, Russian and Eurasian Studies
  - JHP 1289Y Twentieth-Century Ukraine
  - JHP 2301Y Linguistic and Cultural Minorities in Europe
  - POL 2004Y Marxism
  - POL 2304Y Soviet and Post-Soviet Politics
  - POL 2308Y Politics and Government of Eastern Europe
  - POL 2324H Ethnonationalism and State-Building: The Communist and Post-Communist Experience
  - POL 2325Y The Politics of Post-Communism

- **Slavic Languages and Literatures**
  - For a full listing of courses, see the Slavic Languages and Literatures entry in this calendar.

- **Croatian and Serbian Literatures**
  - SLA 1507H Modern Croatian Bards
  - SLA 1517H Modern Serbian Bards
  - SLA 1520H Bosnia in Literature and Culture: Between Croats and Serbs
  - SLA 1521H Topics in Modern Croatian Literature
  - SLA 1522Y The Modern Serbian Novel
  - SLA 1537H Political Drama from Dubrovnik to the Danube
  - SLA 1547H South Slavic Folklore

- **Czech and Slovak Literatures**
  - SLA 1600Y Studies in Czech and Slovak Literatures
  - SLA 1601Y Modern Czech Fiction
  - SLA 1603Y Readings in Czech/Russian Literary Theory
  - SLA 1604Y History of the Czech Literary Language
  - SLA 1605Y Modern Czech Drama and Theatre
  - SLA 1606H Czech Short Story

- **Estonian Literature**
  - SLA 1420Y Estonian National Identity
  - SLA 1421Y Women in East European Fiction
Degree Programs by Graduate Unit

**Hungarian Literature**
HUN 1440Y The Modern Hungarian Novel
HUN 1450H Hungarian Drama
HUN 1451H Three Hungarian Film Directors

**Polish Literature**
SLA 1304H Staging God, Man, and History: Polish Drama and Theatre in Context
SLA 1305Y Polish Fiction or A Disrupted Funeral of the Novel
SLA 1306H Polish Poetry: Shaping the National Canon
SLA 1307H Studies in Polish Poetry: Twentieth Century
SLA 1308Y Topics in Polish Literature
SLA 1310H Revolutions in the Theatre: Stanislavski, Meyerhold, Grotowski, and Kantor
SLA 1312Y Modernism and Postmodernism in Polish Literature in the Twentieth Century and Beyond
SLA 1331H Imagining “The Other” in Polish Literature and Culture

**Russian Literature**
SLA 1201Y Studies in the Russian Novel
SLA 1203Y Studies in Russian Modernism
SLA 1204H Contemporary Russian Literature
SLA 1205H Literary Scandals in Twentieth-Century Russia
SLA 1210H Studies in Medieval Russian Literature
SLA 1211Y Studies in the Russian Drama: Eighteenth to Twentieth Centuries
SLA 1212H Gogol
SLA 1215H Studies in Russian Literature of the Eighteenth Century
SLA 1225H Russian Literature and Criticism in the 1860s
SLA 1230Y Russian Emigré Literature, 1917-1945
SLA 1231H Twentieth Century Russian Prose I: Modernism, Avant-garde, Totalitarianism
SLA 1232H Russian Symbolism
SLA 1233H Studies in Modern Russian Poets
SLA 1234H Dostoevsky
SLA 1235H Pasternak
SLA 1236Y Pushkin
SLA 1237H Twentieth-Century Russian Prose II: Internal and External Exile
SLA 1238H Chekhov
SLA 1239H Vladimir Nabokov’s American Novels
SLA 1240H L. Tolstoy
SLA 1243H Leskov
SLA 1250H Russian Journalism: 1830-1860, The Formative Decades
SLA 1251H Pushkin and His Age
SLA 1900Y Russian Poetry (for MA students only)

**Ukrainian Literature**
SLA 1039Y Kyiv-Kiev-Kijow: A City Through Cultures and Centuries
SLA 1402Y Studies in Ukrainian Modernism
SLA 1403Y Studies in Contemporary Ukrainian Literature
SLA 1404Y Studies in Ukrainian Poets
SLA 1405Y Experiments in Ukrainian Prose
SLA 1406Y Studies in Ukrainian Literary Criticism
SLA 1407H Aspects of Literary Translation of Ukrainian
SLA 1408H Taras Shevchenko
SLA 1409H Ukrainian Literature of the Seventeenth and Eighteenth Centuries

**Slavic Linguistics**
SLA 1101Y History of the Russian Language (PR)
SLA 1102Y Advanced Russian Language Skills
SLA 1103H Comparative South Slavic Linguistics
SLA 1104Y Old Church Slavonic
SLA 1105Y Structure of Russian
SLA 1106H Proseminar in Diachronic Slavic Linguistics
SLA 1107H Comparative West Slavic Linguistics
SLA 1108H Slavic Dialectology
SLA 1109H Old Church Slavonic Translation Technique
SLA 1110H Comparative Historical Slavic Linguistics
SLA 1112H Tense, Aspect, and Mood in Slavic
SLA 1141H History of the Ukrainian Language
SLA 1142H Style and Structure of Ukrainian
SLA 1150H Russian Since the Revolution
SLA 1160H Proseminar in Synchronic Slavic Linguistics
SLA 1161H An Introduction to Areal Linguistics: The Balkan Sprachbund

**General Slavic**
SLA 1036H Metamorphosis of Modernity in Central Europe
SLA 1037Y Theatre and Cinema in Extremis: Staging Twentieth-Century Aesthetics and Politics
SLA 1038H Magic Prague

**Reading and Research Courses**
ERE 1997Y Reading and Research III
ERE 1998H Reading and Research I
ERE 1999H Reading and Research II

For further information about graduate programs and study grants, please contact the Director.

**Graduate Faculty**

**Full Members**
Ambros, Veronika - MA, PhD
Austin, Robert - BA, MA, PhD *(Coordinator of Graduate Studies)*
Barnes, Christopher - BA, MA, PhD
Bodemann, Michal - MA, PhD
Bogert, Ralph - BA, MA, PhD
Braun, Aurel - BA, MA, PhD
Brym, Robert - BA, MA, PhD
Day, Richard - BA, MA, PhD
Dimnik, Martin - BA, MA, MDiv, DPhil
Dowler, E Wayne - BA, AM, PhD

(PR) Courses with prerequisites
Friedmann, Harriet - AB, MA, PhD
Johnson, Robert - BA, PhD
Kivimae, Juri - AM, PhD
Kopstein, Jeffrey - BA, MA, PhD
Kramer, Christina - BA, MA, PhD
Krementsov, Nikolai - PhD
Lahusen, Thomas - MA, PhD
Livak, Leonid - BA, AM, PhD
Magoci, Paul - BA, MA, MA, PhD
Noyes, John - BA, MA, PhD
Orwin, Donna - PhD
O斯塔pchuk, Victor - BA, PhD
Pruessen, Ronald - BA, MA, PhD
Retallack, James - BA, DPhil
Rossos, Andrew - BA, MA, PhD
Schallert, Joseph - PhD
Schwartz, Donald - BA, MA, PhD
Sigmon, Becky - BA, MS, PhD
Solecki, Samuel - BA, MA, PhD
Solomon, Peter - BA, MA, PhD
Solomon, Susan - BA, MA, PhD
Subtelny, Maria - BA, PhD
Tarnawsky, Maxim - BA, PhD
Viola, Lynne - BA, MA, PhD
Wellman, Barry - BA, MA, PhD, PhD
Wittmann, Rebecca - AB, MA, PhD
Wrobel, Piotr Jan - MA, PhD
Zilcosky, John - BA, MA, MA, PhD

Members Emeriti
Bisztray, George - PhD
Dyck, Harvey - BA, MA, PhD
Eddie, Scott - BS, PhD
Gregor, Richard - BA, MA, PhD
Griffiths, Franklyn Jc - BA, MIA, PhD
Isajiw, Wsevolod - BA, MA, PhD
Lantz, Kenneth - BA, MA, PhD
Lindheim, Ralph - BA, MA

Associate Members
Bucerius, Sandra - BA, MA, PhD
Hansen, Randall - BA, MPH, PhD
Jenkins, Jennifer - BA, MA, PhD
Jennings, Eric - BA, PhD
Klein, Edith - BA, MA, PhD
Knop, Karen - BSc, LLB, LLM, SJD
Komaromi, Ann - MA, DPhil
Korteweg, Anna - BA, MA, PhD
Koznarsky, Taras - MA, PhD
Light, Matthew - BA, MA, JD, PhD
Schatz, Edward - PhD
Schonberg, Michal - BA, MA, PhD
Shternshis, Anna - MA, PhD
Smith, Alison - AM, PhD
Triadafilopoulos, Phil (Triadafilos) - BA, MA, PhD
Trojanowska, Tamara - MA, PhD
Vahamaki, Borje - BA, PhD
Way, Lucan Alan - BA, PhD
Exercise Sciences

Faculty Affiliation
Physical Education and Health

Degree Programs Offered
Exercise Sciences – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Exercise Sciences, MSc, PhD
2. Aging, Palliative and Supportive Care Across the Life Course
   • Exercise Sciences, MSc, PhD
3. Cardiovascular Sciences
   • Exercise Sciences, MSc, PhD
4. Health Services and Policy Research
   • Exercise Sciences, MSc, PhD
5. Sexual Diversity Studies
   • Exercise Sciences, MSc, PhD
6. Women and Gender Studies
   • Exercise Sciences, MSc, PhD
7. Women’s Health
   • Exercise Sciences, MSc, PhD

Overview
The field of exercise sciences is interdisciplinary. The Graduate Department of Exercise Sciences offers Master of Science and Doctor of Philosophy programs for students interested in research, academic, and professional careers relating to:
1. Applied/exercise/environmental physiology
2. Metabolic and endocrinological aspects of physical activity
3. Motor control and motor learning
4. Muscle physiology
5. Physical fitness
6. Psychological aspects of sport and physical activity
7. Psychophysiological aspects of exercise and stress
8. Sociocultural aspects of sport and physical activity
9. Women’s health and physical activity

Contact and Address
Web: www.ac-fpeh.com/
E-mail: exs.fpeh@utoronto.ca
Telephone: (416) 978-6087
Fax: (416) 971-2118

Degree Programs
Exercise Sciences

Master of Science

Minimum Admission Requirements
• General regulations of the School of Graduate Studies.
• Applications must be received by February 1.
• Four-year degree, or its equivalent, in physical education and health or a related discipline from a recognized university.

Program Requirements
• Completion of all degree requirements within five years of first registration in the program.
• Successful completion of 2.5 full-course equivalents (FCE) as follows. All courses must be approved in advance by the student's supervisor and the Graduate Department of Exercise Sciences.
  o 0.5 FCE in exercise sciences from the student's area of study
  o 0.5 FCE from the Exercise Sciences offerings
  o 0.5 FCE from another department
  o 0.5 FCE from either Exercise Sciences or another department
  o 0.5 FCE in an appropriate methodology
• 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 and the Graduate Department of Exercise Sciences.
• The Master of Science program may be taken part-time.

Doctor of Philosophy

Minimum Admission Requirements
• General regulations of the School of Graduate Studies.
• Completion of a MA or MSc with a thesis in a related field.
• Provide satisfactory references pertaining to academic and research abilities.
• Applications must be received by February 1.
Program Requirements

Full-time PhD
- Full-time registration (fall, spring, summer sessions) throughout the entire doctoral program.
- Completion of all degree requirements within six years from first registration in the program. Thereafter, students may apply for a maximum of two extensions.
- Successful completion of 3.0 full-course equivalents (FCE) as follows.
  - 0.5 FCE in exercise sciences from the student's area of study
  - 1.0 FCE from the Exercise Sciences offerings
  - 0.5 FCE from another department
  - 0.5 FCE from either Exercise Sciences or another department
  - 0.5 FCE in an appropriate methodology
- All courses must be approved in advance by the student's supervisor and the Graduate Department of Exercise Sciences.
- 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 Exercise Sciences.
- Oral defence of the thesis before an examination committee appointed by the School of Graduate Studies.
- Student's annual program plan must be approved by the supervisor and the Graduate Department of Exercise Sciences.

Flexible-time PhD
- With the approval of the Associate Dean, Graduate Education and Research, 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.
- A flexible-time student is required to 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.

Course List
- EXS 5503H Adaptations to Habitual Activity
- EXS 5507H Desire and Bodies in Place
- EXS 5508H Cardiovascular Disease and Exercise
- EXS 5509H Applied Muscle Physiology and Biochemistry
- EXS 5511H Hormonal Aspects of Women's Health and Exercise: A Focus on Reproductive and Bone Health Issues
- EXS 5513H Current Issues in Exercise Psychology
- EXS 5516H Exercise Psychology
- EXS 5517H Public Policy and Physical Activity in Canada
- EXS 5518H Theoretical Issues in the Sociocultural Study of Physical Activity and Health
- EXS 5519H Theories of the Body and Transcendence
- EXS 5520H Positive Psychology: Psychosocial Factors in Optimal Health and Wellness
- EXS 5521H Stress and Coping
- EXS 7001H Directed Reading in Exercise Sciences
- EXS 7002H Directed Research Project in Exercise Sciences
- JXP 5807H Health Communications

Graduate Faculty

Full Members
- Allison, Kenneth - MHSc, MSc, PhD
- Chapman, Kenneth - MSc, MD
- Corey, Paul - BSc, MA, PhD
- Donnelly, Peter - BA, MS, PhD
- Faulkner, Guy - BE, MSc, DPhil
- Fernie, Geoffrey - BSc, PhD
- Fusco, Caroline - BA, MSc, PhD
- Goodman, Jack - BPHE, MSc, PhD
- Heslegrave, Ronald - PhD
- Jacobs, Ira - MD
- Kerr, Gretchen - BPHE, MA, PhD
- Kidd, Bruce - BA, AM, MA, PhD
- Leith, Larry - BA, MA, PhD
- Lenskyj, Helen - BA, MA, PhD
- Locke, Marius - BA, BSc, PhD
- MacNeill, Margaret - BPHE, MA, PhD
- Mainwaring, Lynda - BA, MHK, PhD
- McKee, Nancy - MD
- Plyley, Michael - PhD
- Shek, Pang - BSc, MSc, PhD
- Silverman, Frances - PhD
- Thomas, Scott - BSc, MSc, PhD (Associate Dean, Graduate Studies)
- Tremblay, Luc - BSc, MSc, PhD

Members Emeriti
- Radomski, Manny - PhD
- Shephard, Roy - BSc, BS, MB, MD, PhD

Associate Members
- Amara, Catherine - BSc, MSc, PhD
- Notarius, Cathy - BPHE, MSc, PhD
- Oh, Paul - MD
- Rhind, Shawn - BPHE, PhD
Degree Programs by Graduate Unit

Forestry

Faculty Affiliation
Forestry

Degree Programs Offered
Forest Conservation – MFC
Forestry – MScF, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Environmental Studies
   • Forest Conservation, MFC
   • Forestry, MScF PhD

Overview
The Faculty of Forestry offers degree programs leading to the Master of Forest Conservation (MFC), Master of Science in Forestry (MScF), and the Doctor of Philosophy (PhD).

The Master of Forest Conservation, the Faculty's professionally-oriented master's degree, is an intensive 16-month course-based program with a strong focus on field and laboratory practical training, Canadian and foreign residential field courses, practical internships and individual and group research. It provides a strong, coherent professional education in forest conservation to students from diverse backgrounds.

The Master of Science in Forestry and Doctor of Philosophy programs are research/thesis-based degrees in areas of specialization relevant to faculty expertise and funding including, but not limited to, 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 Faculty considers applicants from a variety of undergraduate backgrounds including forestry; applied science and engineering; and social, physical, and biological sciences.

Contact and Address
Web: www.forestry.utoronto.ca
E-mail: gradprog@forestry.utoronto.ca
Telephone: (416) 946-7952
Fax: (416) 978-3834

Graduate Department of Forestry
University of Toronto
Earth Sciences Centre
33 Willcocks Street
Toronto, Ontario M5S 3B3
Canada

Degree Programs

Forest Conservation

Master of Forest Conservation

Minimum Admission Requirements
• General regulations of the School of Graduate Studies.
• Honours or specialist bachelor's degree with a minimum of mid-B standing in each of the final two years of the bachelor's program. 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 Faculty but may be advised to take some appropriate background courses prior to admission.
• Additional documentation to the department with completed application forms and transcripts, including three references, a letter of interest in the MFC program, and a resume. Full instructions and forms are available via the Faculty's Web site.

Program Requirements
• The 16-month program starts in September and requires full-time intensive involvement throughout.
• A core of 10 integrated half-courses (5.0 FCE), 4 elective half-courses (2.0 FCE), and an internship FOR 3007H (0.5 FCE) during the summer session in which students work on practical forest conservation projects, either in Canada or abroad. Elective course selection will include the successful completion of 1 field course (0.5 FCE) from either FOR3011, FOR1585 or another related field course approved by the Graduate Coordinator. Enrolment in field courses outside of the Faculty of Forestry will be subject to the requirements and admission by the academic unit offering the course.
• It is also possible to earn the MFC degree through part-time studies. Information on specific course requirements and program schedules is included on the Faculty's Web site.
Forestry

Master of Science in Forestry

Minimum Admission Requirements
- General regulations of the School of Graduate Studies.
- Appropriate four-year bachelor's degree from an approved university, with a standing of at least a mid-B in the final year of the bachelor's degree. A minimum of B+ is required for the collaborative program.
- Additional documentation must be submitted to the department with completed application forms and transcripts, including three references, a letter of intent, a resume, and a "writing sample". Full instructions and forms are available via the Faculty's Web site.

Program Requirements
- Program is prepared by the student in consultation with a supervisory committee and must be approved in sequence by the supervisory committee, the Graduate Committee of the Faculty of Forestry, and the School of Graduate Studies.
- Under exceptional circumstances, a part-time program may be arranged on application to and approval by the Faculty and the School of Graduate Studies.
- Minimal requirements for this degree are:
  - 12 months of residence including two academic sessions.
  - 1.5 FCE, of which at least 0.5 FCE is taken within the Faculty, plus, in the case of students with non-forestry backgrounds, one of FOR 3000H, FOR 3002H, FOR 3003H, FOR 3004H, FOR 3009H, or FOR 3010H, on the recommendation of the student's supervisory committee and approval of the Graduate Coordinator. Depending on the student's background, additional or alternative course work may be required.
  - Credit in FOR 1000H and FOR 1001H.
  - The preparation of a research thesis of acceptable quality and its oral defence.
  - All requirements for the MScF degree must be completed within five years from the date of first enrolment in the program.

Doctor of Philosophy

Minimum Admission Requirements
- Students are admitted to the four-year PhD program via one of three routes:
  - Master's degree - an appropriate University of Toronto master's degree with at least an A-standing, or equivalent from a recognized university, in a discipline appropriate to the intended field of doctoral study and research.
  - Direct entry - in exceptional circumstances, an extraordinarily strong applicant with an appropriate four-year University of Toronto bachelor's degree, or equivalent from a recognized university.
  - Transfer from MScF to PhD - under certain specific conditions, outstanding registered MScF students may be considered by the end of their first year in the MScF program for transfer to the PhD program.
- Applicants must submit additional documentation to the department with completed application forms and transcripts, including three references, a letter of intent, a resume, and a "writing sample". Full instructions and forms are available via the Faculty's Web site.

Program Requirements
- Minimum PhD program requirements:
  - A minimum of four half-courses (2.0 FCE) must be taken. Depending on the student's background and academic goals, additional or alternative course work may be required by the student's supervisory committee, including courses outside the Faculty of Forestry.
  - Credit in FOR 1000H and FOR 1001H.
  - Students approved for transfer from the MScF to the PhD are required to complete, as a minimum, the MScF course requirements (including FOR1000H and FOR 1001H, plus 1.5 FCE) plus 0.5 additional FCE.
  - For students with a non-forestry background, credit in one of FOR 3000H, FOR 3002H, FOR 3003H, FOR 3004H, FOR 3009H, or FOR 3010H, on the recommendation of the student's supervisory committee and approval of the Graduate Coordinator.
  - Successful completion of a comprehensive examination. This will ordinarily be taken early in the second year of the program.
  - Preparation and defence of a thesis that is an original and independent research work adding significantly to the existing body of knowledge.
  - A full-time commitment is expected for a minimum of the first two years in the forestry program.

Course List
The Faculty of Forestry offers the following courses. Courses in the 3000 number series are expected to be offered each year; 1000-level courses may be withdrawn in any particular year, depending on student interest/need and departmental resources. Students should consult the departmental brochure each session to confirm availability.

Courses which may continue over a program. The course is graded when completed.
A maximum of one directed studies course taken with a student's supervisor can be credited toward meeting departmental degree program requirements.

FOR 1000H Research Methods in Forestry (Credit/No Credit)
FOR 1001H Graduate Seminar (Credit/No Credit)
FOR 1060H Soil Fertility and Tree Nutrition
FOR 1280H Wood Products and Processing
FOR 1282H Wood Chemistry
FOR 1284H Bonding and Adhesion Technology
FOR 1286H Natural Fibre Production Technology
FOR 1288H Design and Manufacturing of Biomaterials
FOR 1290H Wood and Material Science
FOR 1292H Long Term Performance and Durability of Wood-Based Materials
FOR 1294H Bioenergy and Biorefinery Technology
FOR 1311H Physiological Ecology of Woody Plants
FOR 1321H Stand Structure and Dynamics
FOR 1331H Advanced Forest Entomology
FOR 1412H Natural Resource Management I (Directed Studies Course)
FOR 1413H Natural Resource Management II (Directed Studies Course)
FOR 1414H Forest Fire Management Systems
FOR 1415H Decision-Making in Forest Management
FOR 1416H Forest Fire Danger Rating
JBF 1436H Forest Landscape Ecology and Methods
JFS 1460H Community Based Natural Resource Management
FORE 1470H International Trade, Environment and Sustainable Development
FOR 1555H Wildlife Ecology and Conservation
FOR 1570H Ecological Principles of Agroforestry
FOR 1575H Urban Forest Conservation
FOR 1580H Ecology, Management, and Conservation of Tropical Forests
FOR 1585H Urban Forest Conservation Field Camp
FOR 1610H Forest Policy Development and Issues
FOR 1900H Advanced Topics in Forestry I (Directed Studies Course)
FOR 1901H Advanced Topics in Forestry II (Directed Studies Course)
FOR 3000H Current Issues in Forest Conservation
FOR 3001H Biodiversity of Forest Organisms
FOR 3002H Applied Forest Ecology and Silviculture
FOR 3003H Economics of Forest Ecosystems
FOR 3004H Forest Management Decision Support Systems
FOR 3005H Stresses in the Forest Environment
FOR 3006H Case Study Analysis in Forest Management
FOR 3007H Internship in Forest Conservation (Credit/No Credit)
FOR 3008H Research Paper in Forest Conservation
FOR 3009H Forest Conservation Biology
FOR 3010H Sustainable Forest Management and Certification
FOR 3011H International Forest Conservation Field Camp (Credit/No Credit)
FOR 3012H Analytical Methods in Forestry

Graduate Faculty

Full Members
Allen, D Grant - BASc, MASc, PhD
Campbell, Malcolm - DPhil
Carleton, Terence - BSc, MSc, PhD
Caspersen, John - BA, PhD
Cooper, Paul - BE, BSc, MSc, PhD
Cowling, Sharon - BSc, MSc, PhD
Eckenwalder, James - BA, PhD
Fortin, Marie-Josee - MSc, PhD
Kant, Shashi - BE, MA, PhD (Coordinator of Graduate Studies)
Kortschot, Mark - BASc, MASc, PhD
Malcolm, Jay - BSc, MSc, PhD
Martell, David - BASc, MASc, PhD
Park, Chul - PhD
Price, Anthony - BSc, MSc, PhD
Reeve, Douglas - BSc, MSc, PhD
Sain, Mohini - PhD
Smith, C.Tattersall - BA, MS, PhD (Dean)
Smith, Sandy - BAGRSC, MSc, PhD
Spelt, Jan - BASc, MSc, ME, PhD
Thomas, Sean - BA, PhD
Yan, Ning - BSc, PhD

Members Emeriti
Aird, Paul - BSc, MS, PhD
Balatinecz, John - BSF, MF, PhD
Blake, Terence - DISCTOR, BSCF, STB, MF, PhD
Bryan, Ronke - BA, PhD
Hubbes, Martin - PhD
Jeffery, Robert - BSc, PhD
Nautiyal, Jagdish - BSc, MF, PhD
Roy, Dibyendu - BSc, MA, DPhil
Timmer, Victor - BSCF, MSCF, PhD

Associate Members
Balsillie, David - PhD
Bell, Frederick Wayne - BS, MSc
Bellocq, Isabel - BSc, MSc, PhD
Burgess, Darwin - BSCF, PhD
Chen, Jiaxin - MASc, PhD
Colombo, Stephen - BSCF, MSCF, PhD
Cui, Wenbin - MSc, PhD
de Groot, Peter - BSCF, PhD
Duinker, Peter - PhD
Dumas, Michael - BSc, MSCF, PhD
Feng, Martin W. - MSc
Flannigan, Mike - BSc, MS, PhD
Fleming, Richard - BSc, PhD
Gordon, Andrew - PhD

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Heyd, Darrick V - BSc, PhD
Jones, Trevor A - BSc, MSc, PhD
Kayahara, Gordon John - MSc, PhD
Kenney, Andrew - BSc, MSc, PhD
Krigstin, Sally - MSc
Kuhlberg, Mark - MA, PhD
Laaksonen-Craig, Susanna - MSc, PhD
Lu, Pengxin - MSc, PhD
Maini, Jagmohan - BSc, PhD
Man, Rongzhou - MSc, PhD
Maynard, Alex - BA, MA, MPH, PhD
McGregor, Deborah - BSc, MES, PhD
McKenney, Daniel - BSc, MSc, PhD
McLaughlin, James W. - BS, MSc, PhD
McLaughlin, John A. - BSCF, MSCF, PhD
Navar, Jose de Jesus - BSCF, MSCF, PhD
Naylor, Brian - BSCF, PhD
Noland, Thomas L. - BSCF, MSCF, PhD
Oksman, Kristiina - MSc, PhD
Parker, William C. - BSCF, MSCF, PhD
Pinto, Fred - BSCF, MSCF
Ray, Justina - BS, MS, PhD
Regniere, Jacques - BSc, PhD
Sastry, Cherla - BSc, MSc, PhD
Schleifenbaum, Peter C. - PhD
Sharma, Mahadev - BSc, MSCF, PhD
Spiecker, Heinrich - MSc, PhD
Stocks, Brian - BSCF, MSCF
Ter-Mikaelian, Michael T. - BSc, PhD
Vasiliauskas, Stanley Anthony - BSc, MSc, PhD
Wang, Sen - BA, MSc, PhD
Wotton, Brian Michael - BSc, PhD
Zakrzewski, Voyteck - BSc, MSCF, PhD
Zhang, S.Y. Tony - PhD
Zimmerman, Barbara - BSc, MSc, PhD
French Language and Literature

Faculty Affiliation
Arts and Science

Degree Programs Offered
French Language and Literature – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Book History and Print Culture
   • French Language and Literature, MA, PhD
2. Editing Medieval Texts
   • French Language and Literature, PhD
3. Women and Gender Studies
   • French Language and Literature, MA, PhD

Overview
The Master of Arts program is both a self-contained program and the first stage towards doctoral studies. It has two objectives: (a) to allow the student to develop a thorough knowledge of the discipline through a program of course work in literary studies or linguistics and (b) to develop an aptitude for research. It is a twelve-month program for full-time students. The program is available on a part-time basis.

The Doctor of Philosophy program engages students in a program of study and research in French Literature/Linguistics approved by the Department.

At the beginning of their course of study, students meet individually with either the Associate Chair or Graduate Secretary in order to determine course selection with a view to ensuring that the student has a well-rounded program and, taken in conjunction with the undergraduate degree, has a broad knowledge of the discipline.

Contact and Address
Web: www.chass.utoronto.ca/french
E-mail: french.graduate@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

Degree Programs

French Language and Literature

Master of Arts

Minimum Admission Requirements
• Students are accepted under the general regulations.
• 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 and/or linguistics - 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 or linguistics).
• Admission is based upon the evidence of the supporting letters and the applicant's academic record.

Program Requirements
• Prerequisite work, if necessary.
• Students in both literature and linguistics are required to complete four full-course equivalents as follows:
  o Students in literature take the graduate seminar in literature (FRE 1200Y) and
  o 3.0 full-course equivalents (FCE) from the regular graduate course offerings or
  o 2.5 FCE and the 0.5 FCE Research Essay FRE 5001H, a memoire of approximately 35 pages, or
  o 2.0 FCE and the 1.0 FCE Research Essay FRE 5000Y, a 65-75 page memoire.
  o Students in linguistics take the graduate seminars in linguistics (FRE 1103H, FRE 1104H, and FRE 1125H) and
  o 2.5 FCE from the regular graduate offerings or
  o 2.0 FCE and the 0.5 FCE Research Essay FRE 5001H, a memoire of approximately 35 pages or
  o 1.5 full-course equivalents and a full-course Research Essay FRE 5000Y, a 65-75 page memoire.
• 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 seminar in literature (FRE 1200Y) or the graduate seminars in linguistics (FRE 1103H, FRE 1104H, and FRE 1125H).
• Up to 1.0 FCE may be taken outside the Department.
• Normally, part-time students take the graduate seminar in literature or the graduate seminars in linguistics during the first year of their programs.
Doctor of Philosophy

Minimum Admission Requirements
Students are admitted under the general regulations of the School of Graduate Studies, in addition to the following departmental regulations:

- Admission to the PhD program is available via one of two routes:
  - A four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, that includes at least seven full-course equivalents in French language and literature/linguistics, with an average grade of at least an A- in the overall program. Admission is limited to exceptionally qualified applicants.
  - A University of Toronto master’s degree in French literature or linguistics, or its equivalent 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 completed as part of the applicant’s bachelor’s or master’s program in French literature or 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) which clearly outlines the area in which the applicant intends to pursue research in French literature or linguistics.
- Applicants must satisfy the Department that they are capable of independent research in French literature or 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

- Course work.
  - A student admitted on the basis of a four-year bachelor’s degree must complete 4 full-course equivalents during the first year of the program and 3.5 additional full-course equivalents during the second year. With the Department’s permission, the student may take up to one full-course equivalent in the first year of the program, and one full-course equivalent in the second year, outside the Department. Students in literature take FRE 1200Y and FRE 1201H as part of their program; students in linguistics take FRE 1103H, FRE 1104H, FREN 1104H, and FRE 1125H unless already completed, and FRE 1201H as part of their program. To remain in good academic standing and to continue in the PhD program, a student must complete 3.5 full-course equivalents, with an average grade of at least an A-, by the end of the first year of the program.
- A student admitted on the basis of a master’s degree must complete 3.5 full-course equivalents during the first year of the program. With the Department’s permission, the student may take one full-course equivalent outside the Department. Students in literature take FRE 1200Y, unless this course or its equivalent has already been completed, and FRE 1201H as part of their program; students in linguistics take FRE 1103H, FRE 1104H, and FRE 1125H unless already completed, and FRE 1201H as part of their program. To remain in good academic standing and to continue in the PhD program, a student must complete 3.5 full-course equivalents, with an average grade of at least an A-, by the end of the second year.
- A student admitted on the basis of a master’s degree must complete 3.5 full-course equivalents during the first year of the program. With the Department’s permission, the student may take one full-course equivalent outside the Department. Students in literature take FRE 1200Y, unless this course or its equivalent has already been completed, and FRE 1201H as part of their program; students in linguistics take FRE 1103H, FRE 1104H, and FRE 1125H unless already completed, and FRE 1201H as part of their program. To remain in good academic standing and to continue in the PhD program, a student must complete 3.5 full-course equivalents, with an average grade of at least an A-, by the end of the second year.

- Thesis topic. By September 15 of the second year of registration, in the case of a student admitted to the PhD program on the basis of a master’s degree, otherwise by September 15 of the third year of registration, a student 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.
- Language requirements. By the end of the first year of the PhD program, in the case of a student admitted on the basis of a master’s degree, otherwise by the end of the second year of the PhD program, the student must demonstrate a reading knowledge of Old French or of another language (excluding French or English), as approved by the Department.
- Field examination. No later than the second session of the second year of registration in the PhD program, in the case of a student admitted on the basis of a master’s degree, otherwise, no later than the second session of the third year of registration, a student must pass the two parts of the field examination:
  - A written examination (to be taken by March 15) designed to test the student’s knowledge of the general area in which his or her research is located - the questions for the examination are given to the student a week in advance of the examination; and
  - An oral examination (to be taken by April 30) based on a written thesis proposal of 15 to 20 pages, plus bibliography, designed to test the student’s readiness to proceed with thesis research.
- Between the completion of the field examination components and the oral examination on the thesis, the student will meet with the supervisory committee at least once a year, and more frequently if required.
- Thesis and oral examination on the thesis.
Course List

All courses are held once a week for two hours. Courses begin in the same week as do undergraduate classes.

Linguistics Courses
FRE 1103H Séminaire de linguistique I: Phonétique et phonologie
FRE 1104H Séminaire de linguistique II: Syntaxe
FRE 1124H Syntaxe de l’Ergativité : Le Français dans tous les Cas
FRE 1125H Séminaire de linguistique III: Morphologie et sémantique
FRE 1132H Problèmes de phonologie : les créoles à base lexicale française
JRL 1110H Second Language Acquisition of Romance Languages

Linguistic and Literature Courses
FRE 1164H Initiation au français médiéval
FRE 1201H Méthodes de recherche (Credit/No Credit)

Literature Courses
FRE 1200Y Séminaire de littérature
FRE 1210H Tristan et Iseut, « mythe européen »
FRE 1613H Les récits de voyages dans la littérature française des XVIe et XVIIe siècles
FRE 1805H Écrivains et penseurs de la modernité :
FRE 1904H L’édition critique : principes et pratiques
FRE 1909H L’éditeur, de l’Encyclopédie aux Éditions de Minuit
FRE 2036H Configurations du genre sexuel dans la prose contemporaine des femmes
FRE 2041H Mémoires (Post)coloniales
FRE 2080H Le sujet en mouvement : migrant et transnational
FRE 2105H Écritures du moi : de la représentation textuelle à la représentation visuelle du sujet écrivant

Other Courses
FRE 4000Y Reading Course
FRE 4001H Reading Course
FRE 4002H Reading Course
FRE 5000Y Research Essay
FRE 5001H* Research Essay

Cross-listed Courses

Book History and Print Culture
BKS 1000Y Book History and Print Culture
BKS 2000H Advanced Seminar in Book History and Print Culture

Medieval Studies
MST 3154H British History in French: Wace, Brut
MST 3155H Chrétien de Troyes, Perceval

Graduate Faculty

Full Members
Bhatt, Parth - BA, MA, PhD (Chair & Graduate Chair)
Brousseau, Anne-Marie - PhD
Clandfield, David - BA, MA, PhD
Cozea, Angela - BA, MA, PhD
Danesi, Marcel - BA, MA, PhD
De Kerckhove, Derrick - BA, MA, PhD
Elkabas, Charles - BA, MA, PhD
Havercroft, Barbara - BA, MA, PhD
Kullmann, Dorothea - PhD
Le Huenen, Roland - DESL
LeBlanc, Julie - BA, PhD
Lord, Michel - BA, MA, PhD
Martin, Philippe - DSc
Massam, Diane - BA, MA, PhD
Michelucci, Pascal - BA, MA, PhD
(Medieval Studies (Associate Chair & Coordinator of Graduate Studies))
Motsch, Andreas - PhD
Ndayiragije, Juvenal - PhD
Nikiema, Emmanuel - PhD
Oliver, William - BA, MA, PhD
Paterson, Janet - BA, MA, PhD
Pirvulescu, Mihaela - MA, PhD
Portebois, Yannick - BA, MA, PhD
Riendeau, Pascal - BA, MA, PhD
Roberge, Yves - BA, MA, PhD
Steele, Jeffrey - BA, MA, PhD
Tcheuyap, Alexie - PhD
(Coordinator, Graduate Admissions & Funding)

Members Emeriti
Bertrand-Jennings, Chantal - LESL, PhD
Boursier, Nicole - BLitt, DESL, PhD
Dainard, Alan - BA, MA, PhD
Falconer, Alexander - MA, DDELUN
Fitch, Brian - BA, PhD
Fitting, Peter - BA, PhD
Fleming, John - BA, MA, PhD
Grise, Catherine - BA, MA, PhD
Kerslake, Lawrence - PhD
McClelland, John Alan - PhD
Merriees, Brian - PhD
Nesselroth, Peter - BA, MA, PhD
Perron, Paul - PhD
Smith, David - BA, PhD, PhD
Taylor, Robert - PhD
Tolton, Cameron - PhD
Walker, John - MA, PhD
Wooldridge, Terence - BA, DDELUN

*Courses which may continue over a program. The course is graded when completed.
**Associate Members**

Besnard, Christine - BA, MA, PhD  
Cobb, Michael - BA, MA, AM, PhD  
Cuervo, Maria Cristina - PhD  
Denoyelle, Corinne - BLitt, DLitt  
Fenwick, Gillian - PhD  
Glinoer, Anthony - BA, MA, PhD  
Heller, Monica - BA, MA, PhD  
Holtz, Gregoire - MA, DLitt  
Jennings, Eric - BA, PhD  
Perez-Leroux, Ana Teresa - MA, PhD  
Rice, Keren - BA, MA, PhD  
Sarabia, Rosa - BA, PhD  
Schallert, Joseph - PhD  
Speirs, Dorothy - BA, MA, PhD  
Teixeira, Carlos - BA, AB, AM
Degree Programs by Graduate Unit

**Geography**

**Faculty Affiliation**
Arts and Science

**Degree Programs Offered**

**Geography** – MA, MSc, PhD
- Fields:
  - Urban/Economic Geography
  - Physical Geography & Natural Systems
  - Environmental Geography & Resource Management
  - Historical, Social, & Cultural Geography
  - Spatial Information Systems

**Planning** – MScPl, PhD
- MScPl Fields:
  - Urban Planning & Development
  - Environmental Planning
  - Social Planning & Policy
  - Economic Planning & Policy
  - Urban Design
- PhD Fields:
  - Cities in Global Context: Economic Development & Social Planning
  - Environmental & Sustainability Planning
  - Urban Development, Design, and the Built Environment

**Urban Design Studies** – MUDS

**Collaborative Programs**
The following collaborative programs are available to students in participating degree programs as listed below:

1. **Aboriginal Health**
   - Geography, MA, MSc, PhD
2. **Asia-Pacific Studies**
   - Geography, MA, MSc
3. **Community Development**
   - Community Planning, MScPl
4. **Environment and Health**
   - Geography, MA, MSc, PhD
5. **Environmental Studies**
   - Geography, MA, MSc, PhD
   - Planning, MScPl
6. **Ethnic and Pluralism Studies**
   - Geography, MA, PhD
7. **International Relations**
   - Geography, MA
8. **South Asian Studies**
   - Geography, MA, PhD
9. **Women and Gender Studies**
   - Geography, MA, MSc, PhD

**Overview**
The Department of Geography, which includes the program in 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 planning 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.

**Contact and Address**
*Web:* www.geog.utoronto.ca
*E-mail:* geograd@geog.utoronto.ca
*Telephone:* (416) 978-3377
*Fax:* (416) 946-3886

Department of Geography
University of Toronto
Room 5045, Sidney Smith Hall
Toronto, Ontario M5S 3G3
Canada

**Degree Programs**

**Geography**

**Master of Arts/Master of Science**

**Minimum Admission Requirements**
- Appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, with a minimum B+ standing in the final two years.
- Applicants are expected to have completed at least 4.0 full-course equivalents (FCE) 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 course work.
• Students whose primary language is not English must take the Test of English as a Foreign Language (TOEFL). Minimum TOEFL scores required for admissibility:
  o Paper-based exam: 580 and 5 on the TWE
  o Computer-based exam: 237 and 5 on the essay rating component
  o Internet-based exam: 93/120 and 22/30 on each of the writing and speaking sections.

Program Requirements
• Two geography programs and various collaborative programs are available; selection is made with the approval of the department. Within most of these programs, students may receive a Master of Science degree if their research contains a substantial physical science component and if two-thirds of their course work comprises Geography courses accepted by the department as physical science courses.
• 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.
• Programs are usually completed in a 12-month period.
• Program I – Thesis: Students undertake research leading to the preparation of a thesis, in conjunction with at least the equivalent of 1.5 graduate FCE including any required core courses.
• Program II - Research Paper: Students will take the equivalent of 3.0 graduate FCE and pursue a research project, normally during the summer, leading to the preparation of a research paper (GGR 1100Y).
• Environmental Studies Research Paper (Collaborative MA/MSc Program) 2.5 FCE of which 1.5 FCE must be taken in the Department of Geography (including the core course), and 1.0 at the Centre for Environment (0.5 FCE must be the CFE core course). Students are also required to undergo a three-month internship and to prepare and defend a research paper (GGR 1100Y). The program is normally completed in 12 months. See the Environmental Studies (Collaborative Program) entry in this calendar.
• Environmental Studies Thesis (Collaborative MA/MSc Program) 2.0 FCE of which 1.0 FCE must be taken in the Department of Geography and 1.0 FCE at the Centre for Environment. Students are also required to prepare and defend a thesis.

Doctor of Philosophy

Minimum Admission Requirements
• Appropriate University of Toronto master’s degree, or its equivalent from a recognized university, with a minimum A- standing. In exceptional cases and at the discretion of the department, admission to the PhD program may be approved for applicants with an overall A average and appropriate University of Toronto bachelor’s degree, or its equivalent from a recognized university.
• Students whose primary language is not English must take the Test of English as a Foreign Language (TOEFL). Minimum TOEFL scores required for admissibility:
  o Paper-based exam: 580 and 5 on the TWE
  o Computer-based exam: 237 and 5 on the essay rating component
  o Internet-based exam: 93/120 and 22/30 on each of the writing and speaking sections.

Program Requirements
• 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.
• Students must:
  o complete a minimum of 2.0 FCE and, depending on the field of specialization, up to an additional 1.0 FCE. A minimum of 0.5 FCE must be, and a maximum of 1.5 FCE may be, taken in other departments. (In exceptional cases, at the discretion of the department, graduate courses completed at the master’s level at the University of Toronto may be counted towards meeting some course requirements. However, all doctoral students must take a minimum of 2.0 FCE with the department after entering the PhD program. Students who enter the PhD program from a bachelor’s degree must complete 1.5 FCE in addition to the doctoral course work requirements. Applicants who hold an appropriate master’s degree but are changing disciplines or require further preparatory work, may be required to complete an additional year of graduate-level course work.)
  o submit a research statement concerning the proposed PhD topic and the scope of the PhD examination by the end of April in Year I
  o pass a PhD examination in the general field in which research is being undertaken by the end of Year I
  o upon the recommendation of their committee, be required to acquire a knowledge of a foreign language necessary for their research
  o submit a research proposal that is acceptable to their research committee by the end of the first session in Year II
• Unless otherwise specified, two years of residence are required 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.
• PhD degree program requirements are fully described in the Graduate Geography Handbook and the department’s Web site www.geog.utoronto.ca

* Courses which may continue over a program. The course is graded when completed.
Course List

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.

GGR 1100Y Research Paper (Credit/No Credit)
GGR 1102H Contemporary Issues in Geographic Thought
GGR 1110H Issues of Geographic Thought and Practice
GGR 1111H Research Practice in Geography
GGR 1149H Readings in Selected Topics
GGR 2149H Readings in Selected Topics
GGR 2150H,Y Advanced Seminar in Selected Topics

Physical Geography
GGR 1202H Sedimentation and Fluvial Geomorphology
GGR 1203H Coastal Hydrodynamics, Sediment Mechanics and Morphodynamics
GGR 1205H Theoretical Geomorphology
GGR 1206H Sedimentary Models
JGE 1212H Fate of Contaminants in the Environment
GGR 1214H Global Ecology and Biogeochemical Cycles
GGR 1302H Advanced Hydrology and Water Quality
GGR 1304H Landscape Biogeography
GGR 1305H Biogeography
GGR 1306H Measurement and Modelling of Surface Environments
GGR 1308H Process Hydrology
GGR 1310H Climate Modelling
GGR 1311H Atmosphere-Ocean Modelling
GGR 1314H Topics in Physical Oceanography

Environmental and Resource Geography
Incoming students in Environmental and Resource Geography must take GGR 1110H.

JPG 1402H Environment and Development
JPG 1403H Political Ecology of African Environments
JPG 1404H Issues in Global Warming
JPG 1406H Energy Supply and Use
JPG 1410H Institutional and Organizational Ecology
GGR 1412H Strategies for Sustainable Development
JGE 1413H Workshop in Environmental Impact Assessment
JPG 1414H Cities as Ecosystems
JPG 1415H Environmental Justice
JPG 1416H Environmental Consequences of Land Use Change
JPG 1418H Rural Land Use Planning
JPG 1419H Aboriginal/Canadian Relations in Environmental and Resource Management
JGE 1420H Urban Waste Management: an International Perspective

Urban and Economic Geography
Incoming students in Urban and Economic Geography must take GGR 1110H.

JPG 1501H The Political Economy of Cities
GGR 1504H Health, Place and Difference
JPG 1507H Housing and Housing Policy
JPG 1509H Feminism, Postcoloniality and Development
JPG 1510H Recent Debates on Urban Form
JPG 1512H Place, Politics and the Urban
JPG 1514H The Role of the Planner: Making a Difference
JPG 1554H Transportation and Urban Form
JPG 1556H Transportation Systems Analysis: An Exploration of Concepts, Methods, Applications, and Emerging Issues

JGE 1609H Cities, Industry and the Environment
JPG 1614H Regional Development and Policy
JPG 1615H Planning and Financing the Social Economy
JPG 1616H The Cultural Economy
GGR 1651H Population Analysis: Research Seminar
JPG 1670H Regional Economic Analysis
GGR 1680H Geography of Tourism

Historical, Social, and Cultural Geography
Incoming students in Cultural and Historical Geography must take GGR 1110H.

JPG 1505H The Multicultural City: Diversity, Policy and Planning
JPG 1506H State/Space/Difference: Understanding the New Social Geography of the State
GGR 1700H Seminar in Cultural-Historical Geography
JPG 1702H Historical Urban Geography and Planning
JPG 1710H Historic Preservation Planning
JPG 1713H Place, Design, and Landscape
GGR 1714H Cultural and Critical Geographies
GGR 1801H Social Identities and Space
JPG 1804H Space, Power and Geography: Understanding Spatiality
JPG 1805H Transnationalism, Diaspora and Gender
JPG 1810H Globalization and Postmodernism
JPG 1815H Political Economy, the Body, and Health

Geographical Information Analysis
GGR 1901H Introductory Analytical Methods
GGR 1903H Multivariate Statistical Methods in Geography
GGR 1904H Accuracy of Spatial Databases
JPG 1906H Geographic Information Systems
GGR 1907H Advanced Geographic Information Systems
GGR 1911H Remote Sensing
GGR 1912H Advanced Remote Sensing
GGR 1913H Digital Cartography
Degree Programs by Graduate Unit

Geography

JPG 1914H Spatial Information Systems
GGR 1921H Open Source Geographic Information Processing
GGR 1922H Topics in Geographical Information Science

Planning
Master of Science in Planning

Minimum Admission Requirements
• Students are admitted under the general regulations of the School of Graduate Studies.
• Appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, with a minimum standing in the final year of B+ in the social or life sciences, or the humanities, or the professions. Knowledge of introductory economics and statistics, as well as word processing and spreadsheet skills, is preferred prior to entry.

Program Requirements
• Students normally enrol for two years of full-time study, although part or all of the requirements of the program may be met by part-time study, with the approval of the Program Director.
• Progress into the second year of the program is normally dependent upon the achievement of an overall B average in the first year. Equivalent provisions apply to the part-time program.
• Students are required to pursue a planning internship (PLA 4444H) between the first and second year 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.
• The program consists of 8.0 FCE, taken over 2 years. This includes the required 3.5 FCE core courses. A further 4.5 FCE (exclusive of PLA 4444H) are chosen from the list of electives and from the offerings of other departments, centres, and institutes. At least 2.5 FCE of these electives must fit into an approved specialization in one of the following 5 fields: Urban Planning and Development, Environmental Planning, Social Planning and Policy, Economic Planning and Policy, Urban Design.
• The requirements for the degree must be completed within six years of first registration in the program.

Doctor of Philosophy

Minimum Admission Requirements
Students are admitted under the general regulations of the School of Graduate Studies, in addition to the following departmental regulations:
• Appropriate University of Toronto master’s degree in planning or a related field, or its equivalent from a recognized university, with a minimum A- average and demonstrated competence in analytical methods or successful completion of one of two methods courses in the current master’s program.

Program Requirements
• Successful completion of coursework, a comprehensive examination, a thesis proposal, and a thesis.
• Students with a master’s degree in planning comparable to the University of Toronto M.Sc. in Planning are required to take 3.0 full-course-equivalents (FCE) of which 1.5 FCE are core courses and 1.5 FCE are 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.
• Normally the PhD program is completed within four years.
• Visit the Planning Web site www.geog.utoronto.ca for more details.

Course List
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 MScPl
PLA 1101H Issues in Planning History, Thought, and Practice
PLA 1102H Urban and Regional Dynamics
PLA 1103H Legal Basis of Planning
PLA 1105H Planning Decision Methods
PLA 1106H Workshop in Planning Practice
PLA 1107Y Current Issues Paper

Core Courses for PhD Planning
JPG 1111H Advanced Research Design
PLA 2000H Advanced Planning Theory
PLA 2001H Planning Colloquium (CR/NCR)

Elective Courses
PLA 1149H Independent Study
PLA 1150H Planning Field Trip Course
JPG 1402H Environment and Development
JPG 1404H Issues in Global Warming
JPG 1406H Energy Supply and Use
JGE 1413H Workshop in Environmental Impact Assessment
JPG 1414H Cities as Ecosystems
JPG 1416H Environmental Consequences of Land Use Change
JPG 1418H Rural Land Use Planning
JPG 1419H Aboriginal/Canadian Relations in Environmental and Resource Management
JGE 1420H Urban Waste Management: an International Perspective
JPG 1421H Health in Urban Environments
JPG 1501H The Political Economy of Cities
PLA 1503H Planning and Social Policy
Degree Programs by Graduate Unit

JPG 1505H The Multicultural City: Diversity, Policy and Planning
JPG 1506H Urban and Regional Social Policy: An International Perspective
JPG 1507H Housing and Housing Policy
JPG 1508H Planning for the Urban Poor in Developing Countries
JPG 1509H Feminism, Postcoloniality and Development
JPG 1510H Recent Debates on Urban Form
JPG 1512H Place, Politics and the Urban
JPG 1514H The Role of the Planner: Making a Difference
PLA 1517H Special Topics in Planning III (Credit/No Credit)
PLA 1551H Policy Analysis
PLA 1552H City Planning and Management
PLA 1553H Urban Transportation Policy Analysis
JPG 1554H Transportation and Urban Form
PLA 1601H Environmental Planning and Policy
JGE 1609H Cities, Industry and the Environment
JPG 1614H Regional Development and Policy
JPG 1615H Planning the Social Economy
PLA 1650H Urban Design: History Theory Criticism
PLA 1651H Planning and Real Estate Development
PLA 1652H Introductory Studio in Urban Design and Planning
PLA 1653Y Advanced Studio in Urban Design and Planning
PLA 1654H Urban Design Research Methods
PLA 1655H Urban Design and Development
JPG 1670H Regional Economic Analysis
JPG 1702H Historical Urban Geography and Planning
JPG 1710H Historic Preservation Planning
JPG 1713H Place, Design, and Landscape
PLA 1751H Public Finance for Planners
JPG 1804H Space, Power and Geography: Understanding Spatiality
JPG 1810H Globalization and Postmodernity
PLA 1904H Law and Planning
JPG 1906H Geographic Information Systems
JPG 1909H Social Survey Methods
JPG 1914H Spatial Information Systems
PLA 4444H Internship (Credit/No Credit) (Designates the internship to be undertaken by master’s students in the Planning Program. It cannot be used to fulfil other course requirements for the degree.)

Urban Design Studies

The MUDS is a one-year professional degree program which provides intensive, advanced education in the principles and practices of urban design. It aims to encourage an understanding of the interdependence of the economic, social, and political forces that shape the character, physical structure, and dynamic properties of cities. The MUDS program coincided with the launch of the Master of Urban Design (MUD) degree program in the Faculty of Architecture, Landscape and Design. Consult the separate calendar entry under Architecture, Landscape, and Design for more details.

Master of Urban Design Studies

Minimum Admission Requirements

• Students are admitted under the general regulations of the School of Graduate Studies.
• Applicants with prior degrees in a range of disciplines including planning, geography, other social sciences, the design disciplines, business administration, and law are encouraged to apply. Students are admitted via one of three routes:
  o Master’s degree in a professional field such as planning, architecture, landscape architecture, business administration and law, an average of at least B+ in graduate studies is required.
  o Bachelor’s degree (four or five year) in planning, architecture, or landscape architecture, with a strong design orientation; an average of at least B+ (or upper second class) in the final year is required.
  o Bachelor’s degree (four or five year) in any discipline plus evidence of significant professional experience (normally at least five years) in an area related to Urban Design and Planning are required to have attained at least a B+ average in their final year.

Program Requirements

• 4.0 full-course-equivalents (FCE). Students entering with significant prior design workshop/studio experience (as determined by the admissions committee) must complete a core program of 2.5 FCE plus a further 1.5 FCE chosen from electives given within the Program in Planning; the Faculty of Architecture, Landscape and Design; and from the offerings of other graduate units. Students without significant prior design workshop/studio experience must complete the above core program and PLA 1652H, plus a further 1.0 elective FCE.
• Degree requirements will normally be completed within one academic year and must be completed within four years of first registration in the program.
• The MUDS program may be taken on a part-time basis. The maximum time for completion of the degree requirements is four years from first registration in the program. Part-time students are expected to participate in the same class meetings as full-time students.

Course List

Core Courses

The core program is composed of five half-course equivalents (six half-course equivalents for those entering
the program without significant prior design workshop/studio experience) that encompass the practical, theoretical, and methodological aspects of urban design.

Course sequence for the core program:

**First Session**
PLA 1650H/URD 1031H Urban Design: History Theory Criticism
or
JPG 1713H Place, Design and Landscape
PLA 1654H Urban Design Research Methods
PLA 1652H Introductory Studio in Urban Design and Planning (students without significant design workshop/studio experience must take PLA 1652H)

Plus one half-course elective, or two half-course electives if the student is exempted from PLA 1652H

**Second Session**
PLA 1653Y Advanced Workshop in Urban Design
PLA 1655H Urban Design and Development

Plus one half-course elective

**Electives**
Elective courses may be chosen from the following:

PLA 1554H Transportation and Urban Form
PLA 1651H Planning and Real Estate Development
JPG 1501H The Political Economy of Cities
JPG 1510H Recent Debates on Urban Form
JPG 1512H Place, Politics and the Urban
JPG 1702H Historical Urban Geography and Planning
JPG 1710H Historic Preservation Planning
JPG 1713H Place, Design and Landscape
JPG 1804H Space, Power and Geography: Understanding Spatiality
JPG 1914H Spatial Information Systems
URD 1012H Urban Design Studio Options
URD 1021H Urban Design Computation
URD 1032H Urban Design in the History of the Post-Industrial World
URD 1033H The City and the Text

MUDS students may also select other electives, subject to the approval of the Director, Program in Planning, and the Coordinator of the MUDS program. Courses with a URD designation are offered through the Faculty of Architecture, Landscape and Design.

**Graduate Faculty**

**Full Members**
Amrhein, Carl - BSc, PhD
Archontitsis, Georgios - BSc, MSc, DSCA
Basiliko, Nathan - PhD
Boland, Alana - BA, MA, PhD
Branfireun, Brian - BA, MSc, PhD
Bullung, Ronald - MA, PhD
Bunce, Michael - BA, PhD
Chen, Jing - BSc, PhD
Conway, Tenley - BS, MS, PhD
Cowen, Deborah - BA, MCP, PhD
Cowling, Sharon - BSc, MSc, PhD
Danieire, Amrita - AB, PhD
Davis, Anthony - BA, MA, PhD
Desloges, Joseph - BES, MSc, PhD
Desrochers, Pierre - AB, MA, PhD
Diamond, Miriam - MSc, MSc, PhD
DiFrancesco, Richard - PhD
Farish, Matthew - BA, PhD
Finkelstein, Sarah - AB, MPH, PhD
Florida, Richard - BA, PhD
Gertler, Metic - AB, MCP, PhD
Gilbert, Emily - PhD
Goonewardena, Kanishka - BSc, MCP, PhD
Gough, William - BSc, MSc, PhD
Hackworth, Jason - BA, MA, MCP, PhD
Harvey, Leslie - BSc, MSc, PhD
Hess, Paul - BA, MA, PhD
Hunter, Mark - BA, MSS, PhD
Kepe, Thembelo - MS, PhD
Leslie, Deborah - BA, MA, PhD
Lewis, Robert - BA, MA, PhD
MacDonald, Ken - BA, MA, PhD
Maclaren, Virginia - BA, MRP, MSc, PhD
Mahtani, Minelle - BA, PhD
Malcolm, Jay - BSc, MSc, PhD
McGregor, Deborah - BSc, MES, PhD
Miron, John - BA, MA, MSc, PhD
Munro, D Scott - BSc, MSc, PhD
Price, Anthony - BSc, MSc, PhD
Prudham, Scott - BASc, BA, MA, PhD
Rankin, Katharine - BA, MA, PhD (Director, Program in Planning)
Relph, Edward - BA, MPH, PhD
Robinson, Vincent - BSc, MSc, PhD
Ruddick, Susan - PhD
Silvey, Rachel - BA, MA, PhD
Simpson, Myrna - BS, DPhil
Sorensen, Andre - BFA, MSc, PhD
Wakefield, Sarah - BA, MA, PhD
Walks, Alan - BA, MA, PhD
Wells, Mathew - BS, DPhil
White, Rodney - BA, MSc, PhD
Wilson, Kathleen - AB, AM, PhD

**Members Emeriti**
Bourne, Larry - BA, MA, PhD
Britton, John - BA, MA, PhD
Dean, William - BA, MA, PhD
Gad, Gunter - DPhil, PhD
Galloway, John - BA, MA, PhD
Greenwood, Brian - BSc, PhD
Jaakoway, Reiner - BA, MSc, PhD
Kerr, P Donald - BA, MA, PhD
Lemon, James - BA, BD, MS, PhD
Roweis, Shoukry - MSc, PhD
Simmons, James - BSc, MA, PhD
Whitney, Joseph - BA, PhD
Associate Members
Boyes, Donald - BS, MA, PhD
Brail, Shauna - BA, MA, PhD
Feldman, Maryann - BA, MS, PhD
Grima, Angelo - BA, MA, PhD
Labatt, Sonia - BA, MA, PhD
Mitchell, Carl - PhD
Murck, Barbara - AB, PhD
Poland, Blake - BA, PhD
Geology

Faculty Affiliation
Arts and Science

Degree Programs Offered
Geology – MASc, MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Environmental Studies
   • Geology, MSc, PhD
2. Geology and Physics
   • Geology, MSc, PhD

Overview
The Department of Geology accepts students for advanced degrees – Master of Applied Science, Master of Science, and Doctor of Philosophy - 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 Civil Engineering, Ecology and Evolutionary Biology, Centre for Environment, Physics, Chemistry, and Materials Science and Engineering.

In recent years, research by staff and graduate students has been carried out in all parts of North America and other parts of the world, both on land and at sea. In addition to field-based studies, the Department has a wide range of modern laboratories; advanced studies are encouraged in a broad spectrum of geological problems. Further details of research emphases, facilities, detailed degree requirements, and graduate courses are available on the departmental Web site www.geology.utoronto.ca.

Contact and Address
Web: www.geology.utoronto.ca
E-mail: grad@geology.utoronto.ca
Telephone: (416) 978-1240
Fax: (416) 978-3938

Department of Geology
University of Toronto
Earth Sciences Centre
Room 1066, 22 Russell Street
Toronto, Ontario M5S 3B1
Canada

Degree Programs

Geology

Master of Applied Science

Minimum Admission Requirements
• Students are accepted under the general regulations.
• 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
• Normally complete the graduate seminar (GLG 1101H), one of the 6 breadth courses, and 1.0 FCE of elective courses, for a total of 2.0 FCE.
• A research thesis.
• Minimum full-time residence is one academic session.

Master of Science

Minimum Admission Requirements
• Students are accepted under the general regulations.
• 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
• Students in the all coursework option are normally required to complete the graduate seminar (GLG 1101H), the all-course research project (GLG 3608H), one of the 6 breadth courses, and 3.5 FCE of elective courses for a total of 5.0 graduate full-course equivalents (FCE).
• Students in the doctoral-stream option are normally required to complete the graduate seminar (GLG 1101H), the research project (GLG 3603Y), research presentation (GLG 3601Y), one of the 6 breadth courses, and 1.0 FCE of elective courses, for a total of 4.0 FCE.
• To encourage breadth, the Department will permit students to substitute electives with equivalent non-geology courses.
• Students may proceed on a part-time basis.
Degree Programs by Graduate Unit

Doctor of Philosophy

Minimum Admission Requirements
• Students are accepted under the general regulations.
• 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 knowledge of the earth.
• Students normally complete the graduate seminar course, one of the 6 breadth courses and an additional half-course, for a total of 1.5 FCE. The additional half-course may be taken in departments other than Geology 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 fields. Recommendations must be made by a student’s advisory committee for consideration and approval by the Department’s Graduate Affairs Committee.
• Students who begin the PhD program directly from the Department’s research-based MSc are required to take one of the six breadth courses and an additional half-course. 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.
• Students are normally expected to complete the MSc degree before proceeding to the PhD, but exceptions may be made when the student has the appropriate research experience. Normal departmental rules for the completion of the PhD apply (see departmental Web site).

Course List
Check with the Department for current year’s offerings.

GLG 1100Y Seminars in Geology Y
GLG 1101H Graduate Seminars in Geology
GLG 1423H Mineralogy
GLG 1430H Basin Analysis
GLG 1436H Palaeoecological Assessment of Environmental Change
GLG 1440H Petrology
GLG 1441H Remote Sensing of Earth and the Terrestrial Planets
GLG 1442H Introductory Mineral Deposits I
GLG 1443H Introductory Mineral Deposits II
GLG 1450H Contaminant Fate and Transport in Subsurface Environments
GLG 1455H Geodynamics
GLG 2222H Tectonics and Planetary Dynamics
GLG 2302H Mineral Resources
GLG 2303H Earth Systems Evolution
GLG 2304H Geochemistry
GLG 2608H Advanced Glacial Sedimentology
GLG 2704H Isotope Geochemistry
GLG 2708H Characterization of Geological Materials
GLG 3601Y Research Presentation
GLG 3602H Seminars in Geology
GLG 3603Y Research Project
GLG 3604H Selected Topics in Geology
GLG 3605H Selected Topics in Geochemistry
GLG 3606H Selected Topics Earth System Evolution
GLG 3607H Selected Topics in Geodynamics
GLG 3608H All-Course Research Project
JGN 2607H Advanced Techniques in Hydrogeology

Additional related courses can be found in the Geophysics section of the Graduate Department of Physics course listings.

Graduate Faculty

Full Members
Bailey, Richard - BSc, PhD
Bergquist, Bridget - BS, PhD
Bollmann, Jorg - DPhil
Brennan, James - BSc, PhD
Cowling, Sharon - BSc, MSc, PhD
Cruden, Alexander - BSc, PhD (Chair & Graduate Chair)
Davis, Donald - BSc, MSc, PhD
Eyles, Nicholas - BSc, MSc, PhD, DSc
Ferris, Grant - BSc, PhD
Ghent, Rebecca - BA, MSc, PhD
Gorton, Michael - BSc, BSc, PhD
Halls, Henry - BSc, MSc, PhD
Hamilton, Michael - BSc, PhD
Head, Martin - BSc
Henderson, Grant - PhD
Howard, Kenneth - BSc, MSc, PhD
Lowman, Julian - BSc, MS, DPhil
Miall, Andrew - BSc, PhD
Mungall, James - BSc, MSc, PhD
Pysklywec, Russell - BSc, MSc, PhD (Associate Chair, Graduate Studies)
Schulze, Daniel - PhD
Sherwood Lollar, Barbara - PhD
Simpson, Myrna - BS, DPhil
Soomer, Edward - BA, PhD
Srinivasan, Gopal - BSc, MSc, PhD
Tait, Kimberly - BSc, MSc, PhD
Wells, Mathew - BS, DPhil
Wicks, Frederick - PhD
Wortmann, Ulrich - BSc, MSc, PhD
Young, R. Paul - BSc, MSc, PhD

212 Geology
Members Emeriti
Anderson, Gregor - BEng, MASc, PhD
Krogh, Thomas - PhD
Naldrett, Anthony - BA, MSc, PhD
Norris, Geoffrey - BA, MA, PhD
Robin, Pierre-Yves F - MSc, PhD
Rucklidge, John - BA, PhD
Schwerdtner, Walfrid - DIPLGEOL, BSc, DRRERNAT
Scott, Steven - BSc, MSc, PhD
Von Bitter, Peter - PhD
Westgate, John - PhD

Associate Members
Bowring, Samuel - MS, PhD
Rudkin, David - BSc
Germanic Languages and Literatures

Faculty Affiliation
Arts and Science

Degree Programs Offered
German Literature, Culture and Theory –
MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Jewish Studies
   • Germanic Languages and Literatures, MA, PhD
2. Women and Gender Studies
   • Germanic Languages and Literatures, MSc, PhD

Overview
The Department of Germanic Languages and Literatures at the University of Toronto is the oldest and largest department of German in Canada. In addition to our traditional strength in literary and intellectual history, faculty and students are conducting research in German cinema, critical theory, language pedagogy, medieval studies, travel literature, as well as postcolonial, psychoanalytic, and transnational studies.

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: www.chass.utoronto.ca/german
E-mail: 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

Degree Programs

German Literature, Culture and Theory

Master of Arts

Minimum Admission Requirements
• Applicants are accepted under the general regulations and must satisfy the Department's program requirements stated below.
• Applicants to the one-year MA program must have completed the four-year BA of this University with major or specialist standing in German (a minimum of seven courses past O.A.C., at least four of which are at the senior level) with no less than a B+ average, or give evidence of similar qualifications.
• Applicants from other universities should arrange for three supporting letters to be sent to the Coordinator of Graduate Studies of the Department, preferably on forms available from the Department.
• Admission is based upon the applicant's academic record and upon the evidence of the supporting letters.

Program Requirements
• Complete 3.5 full-course equivalents (FCE), including GER 1000H German Studies Seminar: Culture, Theory, Text. Course selection is made in consultation with the Coordinator of Graduate Studies of the Department and must be approved by the Department.
• Pass a German language competence test.

Doctor of Philosophy

Minimum Admission Requirements
• Applicants are accepted under the general regulations and must satisfy the Department's program requirements stated below.
• Admission to the PhD program requires either
  o a four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, that includes at least 6.0 full-course equivalents (FCE) in German language, literature, and culture, 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 German courses, or
  o a University of Toronto master's degree in German, or its equivalent 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 German at an advanced level.
• Applicants from other universities should arrange for three supporting letters to be sent to the Coordinator of Graduate Studies of the Department, preferably on forms available from the Department.
• Admission is based upon the applicant's academic record and upon the evidence of the supporting letters.

Program Requirements
• Applicants admitted on the basis of a four-year bachelor's degree must take a minimum of 7.0 full-course equivalents (FCE) including GER 1000H German Studies Seminar: Culture, Theory, Text with an average grade of at least an A-. The Department may recommend to the School the termination of the registration and eligibility of a student who fails to complete at least 3.5 FCE, with an average of at least an A-, during the first year of the program. The student is required to complete the remaining courses required for the degree, with an A- average by the end of the second year.
• Applicants admitted on the basis of a master's degree must take a minimum of 4.0 FCE including GER 1000H German Studies Seminar: Culture, Theory, Text with an average grade of at least an A-. The student is required to complete at least 3.5 FCE by the end of the first year of registration and any remaining courses required for the degree by the end of the second year.
• Course selection may include 1.5 FCE in a department other than Germanic Languages and Literatures.
• Course selection is made in consultation with the Coordinator of Graduate Studies of the Department and must be approved by the Department.
• Students must:
  o give evidence of reading knowledge of French, or, in exceptional circumstances, of another language approved by the Department.
  o pass a general examination in German literature.
  o pass a thesis field review.
  o make an oral presentation of their thesis.
  o submit a thesis on an approved subject and pass an oral examination on this subject.
• 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's conditions (see Degree Regulations, Doctor of Philosophy, Thesis).

Course List
Not all courses are offered every year. The Department should be consulted each session as to actual course offerings.

GER 1000H German Studies Seminar: Culture, Theory, Text
GER 1200H Middle High German
GER 1300H Cultural History of the German Language

GER 1470H Goethe in Context
GER 1480H Goethe's Faust
GER 1490H Bildung und der Roman der Spätaufklärung
GER 1501H Romanticism
GER 1510H E.T.A. Hoffmann and the Dialectic of Enlightenment
GER 1530H Heine and Critical Theory
GER 1540H Revolutions
GER 1580H Vienna at the Turn of the Century
GER 1615H The Early Theatre of Bertolt Brecht
GER 1661H Modernism in Context
GER 1690H Theatre in the Weimar Republic
GER 1710H Weimar Cinema
GER 1720H Kafka with Deleuze: Toward a “Minor Literature”
GER 1730H Travel Writing
GER 1752H Germany's Colonial Imaginary
GER 1770H Reviewing the 50s: German Cinemas under Reconstruction
GER 1771H Topics in German Cinema Studies
GER 1772H The Politics of the Non-Fiction Film
GER 1775H Cinema of Migration
GER 1780H Topics in German Visual Culture
GER 1820H The Learning and Teaching of German
GER 1830H Topics in German Intellectual History
GER 1860H Introduction to Critical Theory
GER 2000H,Y Reading Course in Approved Field
GER 3000H Current Trends in German Literature
GER6000H Reading German for Graduate Students
JGC 1660H Modernism and the Other
JGC 1750H Modernity and Its Discontents
MST 2010Y Old Norse
MST 2015Y Studies in Old Norse Texts
MST 2019H Icelandic Family Sagas

Graduate Faculty

Full Members
Fenner, Angelica - BA, MA, PhD
Goetschel, Willi - PhD
Hager, Michael - MA, PhD
Lehleiter, Christine - MA, PhD
Noyes, John - BA, MA, PhD
Shternshis, Anna - MA, PhD
Soldovieri, Stefan - AB, AM, DPhil (Acting Chair & Acting Graduate Chair - July 1, 2009 to June 30, 2010)
Stock, Markus - MA, PhD (Associate Chair for Graduate Studies)
Zilcosky, John - BA, MA, MA, PhD (Chair & Graduate Chair)

Members Emeriti
Dierick, Augustinus - BA, MA, PhD
Genno, Charles - PhD
Hempel, Wolfgang - PhD
Mayer, Hartwig - PhD, PhD
Associate Members
Retallack, James - BA, DPhil
Global Affairs

Faculty Affiliation
Arts and Science

Degree Programs Offered
Global Affairs – MGA

Pending final governance approval, the Master of Global Affairs program will begin September 2010.

Overview
The Master of Global Affairs (MGA) is a two-year professional program, consisting of four sessions of course work, 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. The MGA will equip 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. The MGA will integrate the study of global institutions, global civil society, and the global economy and markets into the same program, and require that students learn about each area – and about the inter-connections among them.

In offering a curriculum that provides both breadth and depth, the MGA draws on the scholarly strength of faculty from a range of disciplines and subject areas. Students lacking backgrounds in basic economics will be required to take courses in micro- and macroeconomics for policy analysis.

Contact and Address
Web: http://webapp.mcis.utoronto.ca/
E-mail: cis.mail@utoronto.ca
Telephone: (416) 946-8917
Fax: (416) 946-8915

School of International Studies at the Munk Centre
University of Toronto
1 Devonshire Place
Toronto, Ontario M5S 3K7
Canada

Degree Programs

Global Affairs

Master of Global Affairs

Minimum Admission Requirements
• Applicants are required to meet the general requirements of the School of Graduate Studies.
• Four year University of Toronto bachelor’s degree (or equivalent); minimum B+ standing in final year.
• Open to all disciplinary backgrounds.
• Applicants must demonstrate basic competencies in statistics and economics.

Program Requirements
• This is a two-year program taken on a full-time basis over 20 consecutive months.
• 8.0 full course equivalents (FCE), as follows:
  o 4.0 FCE core courses in first year (8 half courses)
  o 0.5 FCE Internship in the summer session between first and second years
  o 1.0 FCE Capstone Seminar in second year
  o 2.5 additional FCE in second year (5 half courses)
• Students lacking a background in economics must take courses in micro- and macroeconomics in first year (PPG 1002H and PPG 1003H; 0.5 FCE each). They must also take GLA 1002H in the second year (replacing a second-year elective course) instead of the first year (making a total of 4.5 FCE in the first year).

Course List

First-Year Core Courses (required)
GLA 1000H Introduction to the Development of the Global System
GLA 1001H Introduction to the Development of the Global System
GLA 1002H International Economics
GLA 1003H Global Civil Society
GLA 1004H Global Security
GLA 1005H Global Policy Analysis
GLA 1006H Decision Making and Strategic Thinking in the Global System
GLA 1007H International Public Law

Additional Core Courses (required)
GLA 2008H Global Internship
GLA 2009Y Capstone Seminar

Elective Courses (subject to change)
MGT 1320H Financial Accounting
MGT 1212H Global Managerial Perspectives
GLA 2010H Global Ethics
GLA 2011H Cultures and Communities in Global Perspective
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLA 2012H</td>
<td>Environment and Energy: The Global Challenge</td>
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<tr>
<td>GLA 2013H</td>
<td>History of Globalization</td>
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<tr>
<td>GLA 2014H</td>
<td>Canada’s Historical Engagement with Global Institutions</td>
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<tr>
<td>GLA 2015H</td>
<td>Topics in Global Affairs</td>
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<tr>
<td>LAW 225H</td>
<td>International Environment Law</td>
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<tr>
<td>LAW 278H</td>
<td>Law, Institutions and Development</td>
</tr>
<tr>
<td>PPG 1006H</td>
<td>Globalization and Internationalization of Public Policy</td>
</tr>
<tr>
<td>POL 2240H</td>
<td>The Geopolitics of Information and Communication Technologies</td>
</tr>
<tr>
<td>SOC 6514H</td>
<td>Social Ecology</td>
</tr>
</tbody>
</table>
Health Policy, Management and Evaluation

Faculty Affiliation
Medicine

Degree Programs Offered

Health Policy, Management and Evaluation
– MSc, PhD
Field: Clinical Epidemiology and Health Care Research
– MSc, PhD
Field: Health Services Research – MSc, PhD
Field: Health Technology Assessment and Management - MSc

Health Administration – MHSc, Combined MHSc/ MN, Combined MHSc/MSW

Health Informatics – MHI

Management of Innovation – MMI

Collaborative Programs

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

1. Aging, Palliative and Supportive Care Across the Life Course
   • Health Administration, MHSc
   • Health Policy, Management and Evaluation, MSc, PhD

2. Bioethics
   • Health Administration, MHSc
   • Health Policy, Management and Evaluation, MSc, PhD

3. Cardiovascular Sciences
   • Health Administration, MHSc
   • Health Policy, Management and Evaluation, MSc, PhD

4. Global Health
   • Health Policy, Management and Evaluation, PhD

5. Health Care, Technology and Place
   • Health Policy, Management and Evaluation, PhD

6. Health Services and Policy Research
   • Health Policy, Management and Evaluation, MSc, PhD

7. International Relations
   • Health Policy, Management and Evaluation, MSc

8. Women and Gender Studies
   • Health Administration, MHSc
   • Health Policy, Management and Evaluation, MSc, PhD

9. Women’s Health
   • Health Policy, Management and Evaluation, MSc, PhD

Overview

The Department of Health Policy, Management and Evaluation (HPME) is training Canada’s future health leaders and researchers through its outstanding degree programs:

1. Doctor of Philosophy in Health Policy, Management and Evaluation
2. Master of Science in Health Policy, Management and Evaluation
3. Master of Health Science in Health Administration
4. Master of Health Informatics
5. Master of Management of Innovation

HPME also offers two combined programs which allow students to complete two degrees in less time than it would take to complete the programs separately.

1. Combined Master of Health Science (Health Administration)/Master of Nursing Program
2. Combined Master of Health Science (Health Administration)/Master of Social Work Program

Multi-disciplinary collaborative programs with other University of Toronto graduate departments allow further specialization.

A complete description of all HPME programs is available on the Web site www.hpme.utoronto.ca. Please note the application deadlines.

November 15
MSc in Health Policy, Management, and Evaluation Fields:
1. Clinical Epidemiology and Health Care Research
2. Health Services Research

PhD in Health Policy, Management, and Evaluation Fields:
1. Clinical Epidemiology and Health Care Research
2. Health Services Research

February 1
MHSc in Health Administration

MHSc in Health Administration/MSW Combined Degree Program

MHSc in Health Administration/MN Combined Degree Program

MSc in Health Policy, Management, and Evaluation Field:
1. Health Technology Assessment and Management

November 15 (closing February 15)
Master of Management of Innovation

March 1
Master of Health Informatics
Degree Programs by Graduate Unit

Contact and Address

Health Policy, Management and Evaluation
Web: www.hpme.utoronto.ca
E-mail: dept.hpme@utoronto.ca
Telephone: (416) 978-4326
Fax: (416) 978-7350

Department of Health Policy, Management and Evaluation
Faculty of Medicine
University of Toronto
Fourth Floor, 155 College Street
Toronto, Ontario M5T 3M6
Canada

Management of Innovation
Web: www.utm.utoronto.ca/mni
E-mail: mni.utm@utoronto.ca
Telephone: (905) 569-4743
Fax: (905)569-4397

Master of Management of Innovation
Kaneff Centre, Room 207
University of Toronto Mississauga
3359 Mississauga Road North
Mississauga, Ontario L5L 1C6
Canada

Degree Programs

Health Policy, Management and Evaluation

Master of Science
The Health Policy, Management and Evaluation Graduate Program offers three fields leading to the Master of Science: Clinical Epidemiology and Health Care Research; Health Services Research; and Health Technology Assessment and Management.

Minimum Admission Requirements
- Students require an overall B+ average or higher in the last two years of a four year undergraduate degree from a recognized university. For applicants to Clinical Epidemiology and Health Care Research, a degree in a health profession (e.g., MD, BScN, BScOT, BScPT, DDM, MScN) from a recognized university with a B+ average in the final two years is required.

Program Requirements

Field - Clinical Epidemiology and Health Care Research
Two options are available:
- Thesis option comprising 3.0 full-course equivalents (FCE) and a thesis.
- Course work only option comprising 5.0 FCE including completion of at least one research practicum

Thesis MSc
- Completion of 3.0 full-course equivalents (FCE) as follows:
  - 1.5 FCE required - HAD 5301H, HAD 5307H and one of HAD 5303H, HAD 5304H, HAD 5306H or HAD 5309H
  - 1.5 FCE optional
- A thesis written under the supervision of a thesis committee (supervisor and at least one additional faculty member) and its defence before an examination committee.
- Completion of all degree requirements within five years.

Course work-only MSc
- Completion of 5.0 FCE as follows:
  - 2.0 FCE required: HAD 5301H, HAD 5307H, HAD 6360H, and one of HAD 5303H, HAD 5304H or HAD 5309H
  - 3.0 FCE optional
- Completion of all degree requirements within five years.

Field - Health Services Research
- 3.0 FCE; of which 1.0 FCE must be research methodology courses and 1.0 FCE must be in an area of specialization.
- A thesis written under the supervision of a thesis committee and its defence before an examination committee.
- Completion of all degree requirements within five years.

Field - Health Technology Assessment and Management
- 3.0 FCE (HAD5308H, HAD5730H, HAD 5760H, HAD 5763H, HAD5727H and HAD5304H) and participate in two non-credit seminars. The courses in this field are offered in a modular fashion in Canada and Europe.
- A thesis written under the supervision of a thesis committee and its defence before an examination committee.
- Completion of all degree requirements within five years.
Doctor of Philosophy

Minimum Admission Requirements
- 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 HPME committee, if the applicant has the appropriate background preparation and research experience or publications which can be considered equivalent to a master's thesis. Students with a non-thesis master's degree and little or no research experience may be admitted to the MSc program and may petition to transfer into the PhD program within 24 months of first registration. Transfer is contingent upon successful completion of master's course work and preparation and defence of a PhD thesis proposal.
- 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.

Program Requirements

Full Time
- Completion of a comprehensive course in the area of specialization.
- Completion of 5.0 FCE from those listed below.
- Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus two additional faculty members),
- Oral defence of the thesis before an examination committee,
- Full time registration (fall, spring, summer sessions) for the first four years of the doctoral program.
- Completion of all degree requirements within six years from first registration in the program.

Flexible Time Option
- 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 and/or familial obligations. The degree requirements for the flexible-time PhD program are identical to those listed above for the full-time PhD program; however, students have up to eight years to complete the program. Students are required to register full time for the first four years of their program; thereafter, they may register part time.

Course List

Field – Clinical Epidemiology and Health Care Research

Compulsory courses
HAD 5301H Introduction to Clinical Epidemiology and Health Care Research
HAD 5307H Introduction to Applied Biostatistics
HAD 5311H Comprehensive/Synthesis (one year)
MSC1060H Biostatistics for Health Sciences

Recommended courses
HAD 5302H Measurement in Clinical Research
HAD 5303H Controlled Clinical Trials
HAD 5304H Clinical Decision Making and Cost Effectiveness (course title pending governance approval)
HAD 5306H Introduction to Health Services Research and the Use of Administrative Data
HAD 5309H Non-Experimental Design for the Clinical Researcher
HAD 5310H Pragmatic Issues in Conduct of Controlled Trials
HAD 5730H Economic Evaluation Methods for Health Service Research
HAD 5760H Advanced Health Economics and Policy Analysis
JNH 5000H Measurement of Patients' Preferences in Health Care Decision Making

Elective Courses
HAD 5011H Canada’s Health Care System (Doctoral Stream)
HAD 5302H Measurement in Clinical Research
HAD 5303H Controlled Clinical Trials
HAD 5304H Clinical Decision Making and Cost Effectiveness
HAD 5305H Evidence-Based Guidelines
HAD 5306H Introduction to Health Services Research and the Use of Administrative Data
HAD 5308H Evidence Synthesis: Systematic Reviews and Meta-Analysis
HAD 5309H Non-Experimental Design for the Clinical Researcher
HAD 5310H Pragmatic Issues in Conduct of Controlled Trials
HAD 5312H Decision Modelling of Clinical Policy and Economic Evaluation
HAD 5313H Advanced Design and Analysis Issues in Clinical Trials
HAD 5314H Applied Bayesian Methods in Clinical Epidemiology and Health Care Research
HAD 6360H Required Research Practicum in Clinical Epidemiology (Credit/No Credit)
HAD 6361H Optional Research Practicum in Clinical Epidemiology (Credit/No Credit)

*Courses which may continue over a program. The course is graded when completed.
### Degree Programs by Graduate Unit

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD 7002H</td>
<td>Reading Course</td>
</tr>
<tr>
<td>JNH 5000H</td>
<td>Measurement of Patients’ Preferences in Health Care Decision Making</td>
</tr>
</tbody>
</table>

**Field – Health Services Research**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAD 5011H</td>
<td>Canada’s Health Care System (Doctoral Stream)</td>
</tr>
<tr>
<td>HAD 5726H</td>
<td>Design and Evaluation in eHealth Innovation and Information</td>
</tr>
<tr>
<td>HAD 5727H</td>
<td>Knowledge Transfer and Exchange</td>
</tr>
<tr>
<td>HAD 5728H</td>
<td>Performance Measurement in Health Care: Theory and Application</td>
</tr>
<tr>
<td>HAD 5729H</td>
<td>Theoretical, Conceptual and Methodological Issues in Knowledge Translation</td>
</tr>
<tr>
<td>HAD 5730H</td>
<td>Economic Evaluation Methods for Health Service Research</td>
</tr>
<tr>
<td>HAD 5734H</td>
<td>Organizational Learning and Knowledge Transfer</td>
</tr>
<tr>
<td>HAD 5737H</td>
<td>Tools for Implementation of Best Evidence</td>
</tr>
<tr>
<td>HAD 5760H</td>
<td>Advanced Health Economics and Policy Analysis</td>
</tr>
<tr>
<td>HAD 5763H</td>
<td>Advanced Methods in Health Services Research</td>
</tr>
<tr>
<td>HAD 5768H</td>
<td>International Perspectives on Health Services Management</td>
</tr>
<tr>
<td>HAD 5771H</td>
<td>Resource Allocation Ethics</td>
</tr>
<tr>
<td>HAD 5772H</td>
<td>Intermediate Statistics for Health Services Researchers</td>
</tr>
<tr>
<td>HAD 5773H</td>
<td>Introduction to Theories of Organizational Behaviour and Applications to the Health Care Sector</td>
</tr>
<tr>
<td>HAD 5776H</td>
<td>Issues in Qualitative Health Services Research Methodologies and Methods</td>
</tr>
<tr>
<td>HAD 6760Y</td>
<td>Introduction to Health Services Research Theory and Methods</td>
</tr>
<tr>
<td>HAD 6761H</td>
<td>Health Services Outcomes and Evaluation Comprehensive Course</td>
</tr>
<tr>
<td>HAD 6762H</td>
<td>Health Services Organization and Management Comprehensive Course</td>
</tr>
<tr>
<td>HAD 6763H</td>
<td>Health Policy Comprehensive Course</td>
</tr>
<tr>
<td>HAD 6764H</td>
<td>eHealth Innovation and Health Information Management Comprehensive Course</td>
</tr>
<tr>
<td>JNH 5001H</td>
<td>Health Care Settings, Site and Human Well Being</td>
</tr>
<tr>
<td>JNH 5003H</td>
<td>Home and Community Care Knowledge Translation</td>
</tr>
<tr>
<td>HAD 7001H</td>
<td>Reading Course</td>
</tr>
</tbody>
</table>

**Cross-listed Courses**

- BME 1456H Changing Health Care Technologies, People, and Places
- HSR 1000H Health Services Research Practicum
- HSR 1001H Introduction to Qualitative Methods for Health Services and Policy Research

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSR 1002H</td>
<td>Health Services and Policy Research Summer Institute</td>
</tr>
<tr>
<td>JCV 3060H</td>
<td>Advanced Topics in Cardiovascular Sciences—Molecular Biology and Heart Signal Transduction</td>
</tr>
<tr>
<td>JCV 3061H</td>
<td>Advanced Topics in Cardiovascular Sciences—Hormones</td>
</tr>
<tr>
<td>JCV 3062H</td>
<td>Advanced Topics in Cardiovascular Sciences—Heart Function</td>
</tr>
<tr>
<td>JCV 3063H</td>
<td>Advanced Topics in Cardiovascular Sciences—Vascular</td>
</tr>
<tr>
<td>JHM 1000H</td>
<td>Issue Analysis in Interdisciplinary, International Health Research</td>
</tr>
<tr>
<td>LAW 465H</td>
<td>Conflicts of Interest in Medicine: Evidence, Public Policy, and the Law</td>
</tr>
<tr>
<td>LAW 404H</td>
<td>Health System Law and Policy</td>
</tr>
</tbody>
</table>

### Health Administration

#### Master of Health Science

The Master of Health Science 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**

- Normally a B+ average or higher in each of the last two years of an appropriate four-year University of Toronto bachelor’s degree, or its equivalent 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 full-course equivalents (FCE) of which 8.5 FCE are required subjects and which includes a minimum of 1.0 full-course equivalent in a field placement.
- Degree requirements are normally completed within two years.

#### Course List

**Required Courses**

All courses are offered in modular format unless marked otherwise.

- HAD 5010H Canada’s Health System and Health Policy: Part I
- HAD 5020H Canada’s Health System and Health Policy: Part II
- JNH 5011H Theory and Practice of Strategic Planning and Management in Health Services Organization
- HAD 5713H Introduction to Health Information Systems
Health Policy, Management and Evaluation

Degree Programs by Graduate Unit

Health Policy, Management and Evaluation

HAD 5721H Strategic Management of Quality and Organizational Behaviour in Health Services Organizations
HAD 5723H Health Services Accounting
HAD 5724H Quantitative Methods for Health Services Management and Policy
HAD 5725H Health Economics
HAD 5731H Advanced Cases in Health Management
HAD 5733H Health Services Finance
HAD 5741H Health Law
HAD 5761H Information and Knowledge Management in Health Service Organizations
HAD 5767H Health Services Marketing
HAD 5769H Human Resources Management in the Health Field
HAD 5770H Program Planning and Evaluation
HAD 6010Y Required MHSc Practicum (Credit/No Credit)
HAD 6011H Optional Practicum Extension (Credit/No Credit)

Elective Courses
(non-modular electives may be taken subject to program approval)
HAD 5735H Commercialization of Health Research
HAD 5736H Operations Research Tools for Quantitative Health Care Decision Making
HAD 5765H Case Studies in Health Policy
HAD 5774H Comparative Health Care Systems
HAD 5775H Competition, Cooperation and Strategy in Health Care

Combined Master of Health Science (Health Administration)/Master of Nursing Program
The Combined Master of Health Science (Health Administration)/Master of Nursing Program provides students with a strong interest in both nursing and health administration an opportunity to engage in an integrated program leading to the concurrent receipt of the MHSc and MN degrees.

Minimum Admission Requirements
- Applicants gain independent admission to the Department of Health Policy, Management and Evaluation and to the Faculty of Nursing. Meeting the minimum requirements does not guarantee admission.
- University of Toronto BSc degree in Nursing or a degree from an equivalent program in a recognized university. Minimum B+ standing over the last two years of undergraduate study. The applicant is expected to have good academic standing in non-nursing as well as nursing subjects.
- Successful completion of an introductory course in statistics prior to admission.
- At least three years of work experience in the health care field.

Program Requirements
- Year 1 - Students enrol in Nursing and complete 4.0 full-course equivalents (FCE) for the MN degree.
- Year 2 - Students enrol in HPME and complete a total of 6.5 FCE: 5.5 FCE in MHSc in Health Administration courses plus 1.0 FCE in electives that can be taken from HPME or Nursing.
- Year 3 – 1.0 FCE taken in HPME.

Combined Master of Health Science (Health Administration)/Master of Social Work Program
The Combined Master of Health Science (Health Administration)/Master of Social Work Program allows students with a strong interest in both social work and health/social sciences management the opportunity to engage in an integrated program leading to the concurrent receipt of the MHSc and MSW degrees.

Minimum Admission Requirements
- Applicants gain independent admission to the Department of Health Policy, Management and Evaluation and to the Faculty of Social Work. Note that the deadline for receipt of applications to the MHSc program is February 1 and the deadline for the MSW program is December 1.

Program Requirements
- There are two full-time streams of study:
  - three-year program for students admitted with a four-year undergraduate degree
  - two-year program for students with a Bachelor in Social Work degree
- Further details available on the Web site at www.hpme.utoronto.ca/programs/mhsc-msw.htm

Health Informatics

Master of Health Informatics

The Master of Health Informatics is a professional, graduate-level program which provides graduates with expertise in clinical, information and communication technologies required to lead organizational and health system change. The MHI degree program prepares health informaticians to bridge the gaps between clinicians and information and communication technology (ICT) specialists.

At press time, program requirements for the MHI program were pending final approval.

Minimum Admission Requirements
- Students are admitted under the general regulations of the School of Graduate Studies.
- Appropriate four year undergraduate degree, or its equivalent, from a recognized university, and
demonstrated English language proficiency. 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. Successful applicants normally have relevant professional experience as a health services professional (e.g., 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 FCE, including required coursework (7.5 FCE), elective course work (0.5 FCE), and a 4-month full-time practicum or field placement (2.0 FCE).
- Degree requirements will be completed in 16 months across 4 consecutive sessions.

Required Courses
MHI 1001H Introduction to Information and Communication Technology in Health Informatics
MHI 1002H Complexity of Clinical Care
MHI 2001H Health Informatics I
MHI 2002H Health Informatics II
INF 1003H Information Systems, Services and Design
INF 1341H Analyzing Information Systems
INF 2183H Knowledge Management and Systems
MHI 2003H Consumer and Public Health Informatics
MHI 2004H Change Management and Human Factors in Health Informatics
MHI 2005Y Practicum Placement
MHI 2006H Advanced Topics in Health Informatics
MHI 2007H Quantitative Skills in Health Informatics
MHI 2008H Project Management for Health Informatics (pending approval)
HAD 5010H Canada’s Health System and Health Policy I
HAD 5726H Design and Evaluation in E-Health Innovation and Information Management
HAD 5728H Performance Measurement in Health Care

Elective Course

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 HPME Chair.

MHI 3000H Independent Reading for Health Informatics

Management of Innovation

Master of Management of Innovation

The Master of Management of Innovation, designed for students with a background in science and technology, is an accelerated 12-month professional degree for individuals pursuing management careers in technology-focused organizations.

Minimum Admission Requirements
- SGS general regulations.
- Four-year university degree in sciences or engineering, or equivalent from a recognized university. Minimum overall grade point average of B+ or 77-79%, 3.3 on a 4.0 scale over the last two years of full-time academic study.
- Prerequisites or their equivalents are set by the MMI program.
- A resume, a letter of intent, and at least two letters of reference must be submitted by the applicant. 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 arrange for GMAT or GRE (General) examination results to be sent to the department.
- An on-site written personal statement.
- Attend an interview where evaluative problem solving capabilities and communication skills are evaluated.

Program Requirements
- The 12-month program consists of an intensive 8-month core academic curriculum consisting of:
  - 4.0 FCE - see list below
  - 2.0 FCE elective (1.0 FCE per session in each of the fall and winter sessions)
  - MMI 1100H, a final capstone course (a Group Project equivalent to 0.5 FCE) during the final four months of the program
- All requirements must be completed within a minimum of one year of study and a maximum of five years from the date of first enrolment.

Course List

Required Core Courses
MMI 1010H Prices and Markets
MMI 1020H Applied Econometrics for Managers
MMI 1030H Marketing Science
MMI 1050H Accounting and Negotiations
MMI 1060H Finance
MMI 1070H Economics of Business Strategy
MMI 1080H Management of Technology
MMI 1090H Technology, Strategy and Policy
MMI 1100H Capstone Course - Final Group Project
Elective Courses
Students are encouraged to select electives that allow them to focus on their individual areas of interest. For this reason the MMI 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 HPME Graduate Coordinator.

Graduate Faculty

Full Members
Anderson, Geoff - MD
Baker, G. Ross - AB, MA, PhD
Barnsley, Janet M - BSc, MSc, PhD
Beaton, Dorcas - BSc(OT), MSc, PhD
Bierman, Arlene - MS, MD
Bombardier, Claire - MA, MD
Bull, Shelley - BMATH, MMath, PhD
Cheung, Angela - BA, MD, PhD
Cockerill, Rhonda W - BA, MA, PhD (Coordinator of Graduate Studies)
Cohen, Marsha - BSc, BSc, MSc, MHSc, MD
Cook, Rebecca - BA, LLM, MA, MPA, JD, SJD
Coyte, Peter C - BA, MA, PhD
Culver, Tony - BA
Davis, David - BA, MD
Deber, Raisa - BS, MS, PhD
Detsky, Allan - BS, MD, PhD
Einarson, Thomas - BScPhm, MSc, MPharm, MEd, PhD
Feldman, Brian - MD
Fortin, Paul - MPH, MD
Geerts, William - BSc, BSc, MSc, MD
Glazier, Richard - MPH, MD
Goel, Vivek - BSc, MSc, SM, MD
Goering, Paula - BSc, MSc, PhD
Golden, Brian - BS, MS, PhD
Goodwin, Pamela - MD
Hannah, Mary - BSc, MDCM, MS
Hawker, Gillian - MD
Hogg-Johnson, Sheila - BMATH, MMath, PhD
Holmes, D Linn - MHSc, MD
Jadad, Alejandro - MD, DPhil
Krahn, Murray - BA, MSc, MD
Kreiger, Nancy - BA, MPH, PhD
Laupacis, Andreas - MD
Lemieux-Charles, Louise - PhD (Chair & Graduate Chair)
Leonard, Kevin - BCOM, MBA, PhD
Llewellyn-Thomas, Hilary - BSN, MSc, PhD
Logan, Alexander - MD
Macarthur, Colin - BS, MSc, MBChB, PhD
Maclean, Heather - BSc, EdD
Mclaughlin, John Ross - BSc, MSc, PhD
Miller, Fiona - MA, DPhil
Myers, Ted - BA, MSW, MSc, PhD
Naglie, I. Gary - BSc, MDCM
Naylor, C. David - MD, PhD
O'Brien-Pallas, Linda-Lee - BSN, MSN, DPhil
Ohlsson, Arne - MD, MD
Rochon, Paula - MD
Sass-Kortsk, Andrea - BSc, MHCSc, PhD
Stukel, Therese - BS, PhD
Talbot, Yves - BA, MD
To, Teresa - BA, MA, PhD
Tu, Jack Ven - MD, PhD
Upshur, Ross Edward - BSc, BA, MA, MD
Wang, Elaine - MDCM
Wasleyeni, Donald - BA, MD
Williams, Paul - PhD
Wright, James - BA, LMCC, CSPO, MPH, MD
Young, Lionel Trevor - MD, PhD

Members Emeriti
Bliss, J Michael - BA, MA, PhD
Dickens, Bernard - LLB, LLM, PhD
Hastings, John Ef - DPH, MD
Vayda, Eugene - BS, MD, MBCChB, DRMED

Associate Members
Alibhai, Shabbir - MD
Allen, Upton - MSc, MSc, MBBS
Ammendolia, Carlo - MEDS
Ashbury, Fredrick D - BA, MA, PhD
Austin, Peter - PhD
Baranek, Patricia - BS, MA, MA, PhD, PhD
Barbera, Lisa - MD
Baxter, Nancy - DRMED, PhD
Bayoumi, Ahmed - MD
Berta, Whitney - BS, MBA, PhD
Bezjak, Andrea - MS, MDCM
Bhattacharya, Onil - MD
Boehm, Leslie A - BA, MA, MA
Bohnen, John - LMCC, MD
Boon, Heather - PhD
Bronskill, Susan - MSc
Browne, Janis Lynne - BSc, MD
Bryant, Sally - LLB
Cafazzo, Joseph - DPhil
Cassidy, David - BSc, MSc, PhD
Chan, Benjamin - MPH, MPH, MD, MD
Chan, Christopher - MD
Charach, Alice - MD
Choudhry, Sujit - LLB, LLM
Cina, Claudio - MSc, DRMED
Corbin, Ruth Mw - BSc, MSc, PhD
Davis, Alleen - BSc(PT), MSc
Dewa, Carolyn - BA, MPH, PhD
Dhalla, Irfan - BAA, MD
Dick, Paul - MDCM
Dobrow, Mark - PhD
Donnelly, Sandra - BSc, MSc, MDCM
Easson, Alexandra - MSc, MD
Etchells, Edward - MSc, MD
Eysenbach, Gunther - MD
Fehlings, Darcy - MD
Feig, Denice - MD
Flood, Colleen - LLB, LLM, SJD
Fowler, Robert - MDCM
Gagliardi, Anna - BSc, BE, MSc, MLS, PhD
Gamble, Brenda - BA, MS, PhD
Gamble, Paul - BSc, BA, MHSA
Gibson, Jennifer - PhD
Gnam, William - MD
Goldwasser, Meredith - SCD
Guerriere, Denise - PhD
Gunz, Hugh - DPhil, PhD
Guttman, Mark - MD
Hayden, Jill - SCD
Hoch, Jeffrey - BA, MA, PhD
Hodgson, David - MD
Howard, Andrew - BA, CSPO, MSc, LMCC, MD
Hudak, Pam - PhD
Hux, Janet - MD
Hwang, Stephen - MPH, MD
Ivanov, Joan - MSc, PhD
Jackevicius, Cynthia - BS, MSc
Jaglial, Susan - BSc, MSc, PhD
Jassal, Sarbjit Vanita - MD
Juurink, David - BSc, MD, PhD
Kapral, Moira - MD
Kelley, Mary - DSW
Kennedy, Erin - CSPO, MD, PhD
Khan, Kamran - MPH, MD
Ko, Dennis - MD
Kreden, Hans - MPH, MD
Kulkarni, Abhaya - BSc, MD, PhD
Laporte, Audrey - BA, MA, PhD
Law, Calvin - CSPO, LMCC, MPH, MD
Lehoux, Pascale - BS, MASc, PhD
Lin, Elizabeth - PhD
Loblaw, Andrew - MD
Lok, Charmaine - MSc, MD
Loutfy, Mona - MPH, MD
MacIntosh-Murray, Anu - BA, LLB, MPH
Mahomed, Nizar - MPH, MD, SCD
Malach, Faith - MHSAA
Marshall, Debra - AA
Martin, Douglas - BSc, PhD
Mathews, Maria - DPhil
Matlow, Anne - MSc, MD, MD
McCordle, Brian - MD
McGeer, Allison - BSc, MSc, MD
Mitchell, Leslie - MSc
Moore, Lynn - MHSAA
Morrison, Laurie - BSc
Murray, Michael A - BA, MA, PhD
Naimark, David - MD
Nam, Robert - MSc, MD
Nathens, Avery - MPH, MD, PhD
Naukenberg, Eric - AB, MPH, PhD
Nestman, Lawrence - BComm, MHSAA
O’Connor, Paul - MD
Otley, Anthony - DRMED
Pace, Kenneth - DRMED
Palda, Valerie - MD
Parkin, Patricia - BSc, MD, MD
Passat, Lawrence - MS, MD
Preyra, Colin - BA, MA, MSc, PhD
Pron, Gaylene - BSc, MSc, PhD
Rachlis, Michael - MSc, MD
Rath, Darlyne - MSc
Ringash, Jolie - MSc, MD
Sale, Joanna - No Degree Data
Saposnik, Gustavo - MSc, MD
Sawka, Carol - MD
Schull, Michael - MD
Shachak, Aviv - DPhil
Shah, Bajju - MD
Shah, Vibhuti - MD
Sharkey, Shirlee - BA, BSN, MHSAA
Singer, Lianne - MD
Smith, Tina - BSc, MHSA
Sridharan, Sanjeev - No Degree Data
Stanbrook, Matthew - MSc, MD
Steinhart, A. Hillary - MD
Straus, Sharon Elizabeth - MSc, MD
Subbarao, Padmaj - MD
Sullivan, Terrence - BS, MA, PhD
Teare, Gary - MSc, DRMEDVET, PhD
Tolomiczenko, George - PhD
Tombak, Mihkel - BS, MBA, AM, PhD
Ungar, Wendy - BA, MSc, PhD
Urbach, David - MSc, MD
Wales, Paul - BSc, MSc, MD
Walmsley, Sharon - BSc, MSc, MD
Wei, Alice - BSc, MSc, MSc, MD
Whyte, Hilya - MBChB
Willison, Donald - MSc, MSc, SCD
Windrim, Rory - MB
Wobeser, Wendy - MSc, DRMED
Wodchis, Walter - MA, PhD
Wong, Rebecca - MBChB
Wright, Frances - BSc, LMCC, MEd, MD
Young, Nancy - BSc(PT), BSc(PT), MSc
Zakus, David - BS, MES, MSc, PhD
History

Faculty Affiliation
Arts and Science

Degree Programs Offered
History – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Asia-Pacific Studies
   • History, MA
2. Book History and Print Culture
   • History, MA, PhD
3. Editing Medieval Texts
   • History, PhD
4. Ethnic and Pluralism Studies
   • History, MA, PhD
5. International Relations
   • History, MA
6. Jewish Studies
   • History, MA, PhD
7. Sexual Diversity Studies
   • History, MA, PhD
8. South Asian Studies
   • History, MA, PhD
9. 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. The Department has a special strength in gender history, medieval history, transnational history, colonialism, the Americas, Europe, and Russia. Courses are offered in the history of Canada; the United States; Medieval, Early Modern and Modern Europe and Britain; Eastern Europe; Russia; Latin America; Africa; South Asia; East Asia; Southeast Asia; International Relations; the History of Medicine and Women’s History.

The University of Toronto also offers rich resources outside the department to support the study of history. The Robarts Research Library, unrivaled 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 Center for Medieval Studies and the Pontifical Institute have particularly strong resources for European and British medieval history. The Munk Center for International Studies; the Institute for the History and Philosophy of Science and Technology; the Center of Criminology; the Institute for Urban and Community Studies; as well as the Center for European, Russian, and Eurasian Studies afford additional opportunities for interdepartmental work. The Department participates in a number of interdisciplinary collaborative programs.

Contact and Address
Web: www.chass.utoronto.ca/history
E-mail: histgrad@chass.utoronto.ca
Telephone: (416) 978-3369

Department of History
University of Toronto
Room 2074, Sidney Smith Hall
Toronto, Ontario M5S 3G3
Canada

Degree Programs
History

Master of Arts

Minimum Admission Requirements
• The closing date for applications to the MA program is January 15. Later applications will be considered only in exceptional circumstances.
• Four-year BA degree from the University of Toronto or a similar program elsewhere with at least a B+ standing.
• Successful completion of at least 6.0 full-course equivalents (FCE) 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 information form, three letters of recommendation, a 500-word specific research proposal outlining a precise field and area of historical investigation, and 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 facility in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with scores of at least:
  o Paper-based TOEFL exam: 600 with 5 on the Test of Written English
  o Computer-based TOEFL exam: 250 with 5 on the essay rating component
  o Internet-based TOEFL exam: 100/120 with 22/30 on the writing and speaking sections.
Program Requirements
- Students usually complete the MA by course work and the HIS 2000Y paper. Some students may elect to complete the MA by course work and thesis.
- After consulting with the graduate coordinator, all MA students are required to take either HIS 1997H or HIS 1201H.
- Students must achieve at least an overall B average in their courses to maintain standing.
- Students must also pass the required reading examination in a language other than English.
- The MA may be undertaken on a part-time basis; however, program requirements must be completed within a maximum of five years.

Course Work and Paper
- 4.5 full-course equivalents (FCE) (of which 0.5 must be either HIS 1997H or HIS 1201H) and the MA essay. Normally, up to 1.0 FCE may be taken outside the Department of History with the approval of the Coordinator of Graduate Studies.
- Full-time MA students are expected to complete all degree requirements within 12 months of entering the program.

Course Work and Thesis
- 2.0 FCE (of which 0.5 must be either HIS 1997H or HIS 1201H) and present an MA thesis.
- The thesis MA might take longer than the course MA. The thesis must be presented within five years of entering the program.

Doctor of Philosophy

Minimum Admission Requirements
- The closing date for applications to the PhD program is January 15. Later applications will be considered only in exceptional circumstances.
- Applicants may enter the PhD program via one of two routes:
  - Normally, with an MA degree in history or its equivalent with an A- average or better.
  - Exceptional students may be admitted by direct entry to the PhD program 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 information form, three letters of recommendation, a 500-word specific research proposal outlining a precise field and area of historical investigation, and 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 facility 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
  - Computer-based TOEFL exam: 250 with 5 on the essay rating component
  - Internet-based TOEFL exam: 100/120 with 22/30 on the writing and speaking sections.

Program Requirements
- Course work.
  - With MA degree in history: 2.0 full-course equivalents (FCE) with a B+ average throughout course work.
  - By direct entry: 4.0 FCE, one of which should be HIS 1997H. Students must maintain an A- average in their first 2.0 FCE in order to continue in the program.
- Residence requirement. PhD students are required to be in residence until they have passed their field examinations but no longer than a period of two years. 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.
- Comprehensive examinations in three approved fields of history. At the beginning of their programs, students consult with the Coordinator of Graduate Studies to determine their fields and students will be assigned advisors. Three fields are required: a major and two minors. The major should coincide with the subject area that the student has chosen for the thesis, and the two 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 three fields. Students are required to take their field examinations by the spring of their second year in the program, but they are strongly advised to take them as soon as possible after the completion of their course work. Examinations are held in January and April. Examinations cannot be postponed beyond the spring of the second year without permission of the Coordinator of Graduate Studies. The Department’s graduate handbook, Graduate Studies in History, contains a list of 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 by the beginning of the second year and may be asked to qualify in other program-related languages.
- Thesis. When all of the above requirements are completed, the candidate will proceed to write the PhD thesis and defend it at a final oral examination. The thesis must be a piece of original scholarship, approximately 350 pages or 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.
- Time to Completion. Although it is possible to complete these requirements within four years, in
most cases it will take longer. The thesis must be presented within six years of first enrolment in the PhD program.

Course List
Not all courses are offered every year. Please consult the Department's list of current course offerings.

HIS 1004H History and Biopolitics
HIS 1006H Historiography "From Below": Comparative and Critical Perspectives
HIS 1009H Colonial Governmentality: Governing Economy and Culture
HIS 1010H History by Numbers: The Uses and Misuses of Quantitative Evidence in History
HIS 1015H Colonial Encounters and Postcolonial Theory
HIS 1016H Readings in the History of Gender and Sexuality
HIS 1020H Cultural Theory/Cultural History
HIS 1026H Modernity and Its Others: History and Postcolonial (joint graduate/undergraduate)
HIS 1030H Oral History: Theory, Methods, Practice
HIS 1035H Historiography and Film Studies (joint graduate/undergraduate)
HIS 1036H Early Cinema
HIS 1101H Race and Gender in the Northern Colonies of North America
HIS 1104H Natives and Empires: Colonial History of the Americas, 1492-1800
HIS 1105H Colonial North America, 1600-1783
HIS 1106H Topics in Canadian Social History
HIS 1107H Religion, Culture and Society in Canada (joint graduate/undergraduate)
HIS 1111H Topics in North American Environmental History (joint graduate/undergraduate)
HIS 1112H Canada in Comparative Contexts, Gender, Labour, Migration
HIS 1113H Politics and Society in North American History
HIS 1114H Indigenous Histories in North America
HIS 1122H Canadian Foreign Relations, 1940-2003 (joint graduate/undergraduate)
HIS 1164H Irish Migration to Canada: Sources and Methods
HIS 1201H The Materials of Medieval History (Credit/No Credit)
HIS 1207H Pastoralia: The Medieval History of Pastoral Care
HIS 1208H Writings of Robert Grosseteste
HIS 1209H The Anglo-Saxons
HIS 1210H Gregory of Tours and the Sixth Century
HIS 1213H Medieval Institutes of Perfection (joint graduate/undergraduate)
HIS 1214H The Merovingians
HIS 1215H Social Change in Medieval England, 1154-1279
HIS 1218H The Medieval Church (joint graduate/undergraduate)
HIS 1220H Medieval Canon Law (joint graduate/undergraduate)
HIS 1221H Topics in Early Modern European Social History
HIS 1222H Ritual in Renaissance and Early Modern Europe
HIS 1223H Humanism and the Renaissance
HIS 1230H The Sexes in the Western World, 1450-1650
HIS 1231H Topics in French History
HIS 1232H European Colonialism, 1870-1970: A Comparative History
HIS 1233H Colonial Urbanism in the Mediterranean World, 1800-1950
HIS 1234H Readings in Early Modern French History
HIS 1235H History in/of the Mediterranean: From Braudel to Post-Colonialism
HIS 1237H France: 1870-1968
HIS 1245H Gender, Men and Women in Europe 1500-1900
HIS 1265H Atrocities and Memory in Postwar Europe and North America
HIS 1267H Nationalism
HIS 1268H The Holocaust and World War II
HIS 1269H The Social History of Medicine in the Nineteenth and Twentieth Centuries (joint graduate/undergraduate)
HIS 1270H History of Psychiatry and Psychiatric Illness (joint graduate/undergraduate)
HIS 1271H Modern Political Trials
HIS 1272H Topics in Twentieth-Century European History
HIS 1275H Imperial Germany, 1871-1918
HIS 1276H The Third Reich and the Holocaust
HIS 1277H Topics in Jewish History
HIS 1278H Topics in Twentieth-Century German History
HIS 1279H World War II in East Central Europe (joint graduate/undergraduate)
HIS 1280Y History and Soviet Cinema (joint graduate/undergraduate)
HIS 1281H History of Real Socialism
HIS 1282H Totalitarian Culture
HIS 1283H Crusades, Conversion and Colonization in the Medieval Baltic (joint graduate/undergraduate)
HIS 1284H The Baltic World
HIS 1285Y The Ukrainian National Revival (joint graduate/undergraduate)
HIS 1286H Categories of Imperial Russian Social History
HIS 1287H Polish Jews Since the Partitions of Poland (joint graduate/undergraduate)
HIS 1288H The Age of Experiments (joint graduate/undergraduate)
HIS 1289H The Cold War Through Its Archives
HIS 1290H Topics in Imperial Russian History
Degree Programs by Graduate Unit

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIS 1291H</td>
<td>Topics in Russian and Soviet Social History (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS 1292H</td>
<td>The Russian Revolution (joint graduate/undergraduate)</td>
</tr>
<tr>
<td>HIS 1293Y</td>
<td>Kievan Rus' (joint graduate/undergraduate)</td>
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<tr>
<td>HIS 1294H</td>
<td>In the Soviet Archives: Text and History (joint graduate/undergraduate)</td>
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<tr>
<td>HIS 1295H</td>
<td>Soviet History Seminar</td>
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<tr>
<td>HIS 1296H</td>
<td>Stalinism and After: Beyond Cold War History</td>
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<tr>
<td>HIS 1297H</td>
<td>Problems of National Survival in Eastern Europe Since 1848 (joint graduate/undergraduate)</td>
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<tr>
<td>HIS 1299H</td>
<td>Topics in Russian Intellectual History</td>
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<tr>
<td>HIS 1411H</td>
<td>Theory and Practice in Early Modern British History</td>
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<tr>
<td>HIS 1425H</td>
<td>British Social Realism and Cinema</td>
</tr>
<tr>
<td>HIS 1435H</td>
<td>Studies in Victorian Society</td>
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<tr>
<td>HIS 1440H</td>
<td>Irish Nationalism in Canada and the United States (joint graduate/undergraduate)</td>
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<tr>
<td>HIS 1519H</td>
<td>Thinking of Diversity: Historical Perspectives on American and Canadian Pluralisms</td>
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<tr>
<td>HIS 1522H</td>
<td>Topics in Twentieth-Century U.S. History: Transnational Commodity Culture</td>
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<tr>
<td>HIS 1524H</td>
<td>Topics in the History of Black America</td>
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<tr>
<td>HIS 1530H</td>
<td>Readings in Twentieth Century American Foreign Policy</td>
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<tr>
<td>HIS 1531H</td>
<td>American Political History Since 1877</td>
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<tr>
<td>HIS 1532H</td>
<td>American Foreign Policy in the Cold War</td>
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<tr>
<td>HIS 1533H</td>
<td>Gender and International Relations (joint graduate/undergraduate)</td>
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<tr>
<td>HIS 1535H</td>
<td>Readings in International Relations History</td>
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<tr>
<td>HIS 1538H</td>
<td>Reading in U.S. History</td>
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<tr>
<td>HIS 1539H</td>
<td>Film Comedy and Popular Culture</td>
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<tr>
<td>HIS 1540H</td>
<td>Cultures of American Capitalism</td>
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<tr>
<td>HIS 1543H</td>
<td>Topics in Material Culture</td>
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<tr>
<td>HIS 1545H</td>
<td>Race, Segregation and Protest: South Africa and the United States</td>
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<tr>
<td>HIS 1550H</td>
<td>Atlantic Labour Migrations</td>
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<tr>
<td>HIS 1555H</td>
<td>Gender and Slavery in the Atlantic World, Seventeenth to Nineteenth Century</td>
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<tr>
<td>HIS 1630H</td>
<td>Appeasement</td>
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<tr>
<td>HIS 1632H</td>
<td>International Relations Field Seminar</td>
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<tr>
<td>HIS 1637H</td>
<td>Culture and the Cold War (joint graduate/undergraduate)</td>
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<tr>
<td>HIS 1663H</td>
<td>Gender in East and Southeast Asia</td>
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<tr>
<td>HIS 1664H</td>
<td>Religion and Society in Southeast Asia</td>
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<tr>
<td>HIS 1665H</td>
<td>Gender and History in Colonial South Asia</td>
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<tr>
<td>HIS 1667H</td>
<td>Transnational Gender Histories</td>
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<tr>
<td>HIS 1668H</td>
<td>Topics in Early Modern Asian History</td>
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<tr>
<td>HIS 1673H</td>
<td>Critical Historiography of Late Imperial and Modern China</td>
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<tr>
<td>HIS 1675H</td>
<td>Imperial Circulation and Diasporic Flows in the British Empire</td>
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<tr>
<td>HIS 1677H</td>
<td>Empire and Nation in Modern East Asia</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HIS 1678H</td>
<td>War and Memory in Twentieth-Century East Asia</td>
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<tr>
<td>HIS 1701H</td>
<td>Religion, Society and Empire in the Colonial Spanish Americas, 1492-1800</td>
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<tr>
<td>HIS 1704H</td>
<td>Latin America in the Age of Independence</td>
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<tr>
<td>HIS 1705H</td>
<td>Africa: Writing, Colonialism and Memory</td>
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<tr>
<td>HIS 1706H</td>
<td>Decolonizing Research Methodologies</td>
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<tr>
<td>HIS 1707H</td>
<td>Topics in African History</td>
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<tr>
<td>HIS 1708H</td>
<td>Labour in the Age of Imperialism</td>
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<tr>
<td>HIS 1709H</td>
<td>Conversion and Christianities in the Early Modern Spanish World (joint graduate/undergraduate)</td>
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<tr>
<td>HIS 1710H</td>
<td>Comparative Slavery in the Caribbean and Latin America</td>
</tr>
<tr>
<td>HIS 1784H</td>
<td>The Islamic Revolution</td>
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<tr>
<td>HIS 1997H</td>
<td>The Practice of History (Credit/No Credit)</td>
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<tr>
<td>HIS 1998H,Y</td>
<td>Reading Course</td>
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<tr>
<td>JBP 2230H</td>
<td>Topics in International Politics</td>
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<tr>
<td>JHP 1289Y</td>
<td>Twentieth Century Ukraine (joint graduate/undergraduate)</td>
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<tr>
<td>JHP 1631H</td>
<td>Intelligence and International Relations</td>
</tr>
<tr>
<td>JHP 2231H</td>
<td>The History and Philosophy of International Relations Thought</td>
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<tr>
<td>JHP 2301Y</td>
<td>Linguistic and Cultural Minorities in Europe (joint graduate/undergraduate)</td>
</tr>
</tbody>
</table>

Courses in Other Departments Taught by History Faculty

- COL 5027H Memory, Trauma, and History
- COL 5044H A Journey from Petersburg to Los Angeles
- MST 1100H Diplomats and Diplomatic Editing
- MST 1120H Literacy in Early Medieval Europe
- MST 3201H Medieval Social History
- MST 3205H Violence in Medieval Society (joint graduate/undergraduate)
- MST 3225Y Jews and Christians in Medieval and Renaissance Europe (joint graduate/undergraduate)
- MST 3242H The Carolingians and the Birth of Europe
- MST 3243H Dark Age Italy
- MST 3262H Monastic Identities
- MST 3265H Hagiographies

Other Departments

Students may take courses from other departments for graduate history credit with permission of the Graduate Coordinator. Interested students should consult the appropriate calendar entries and departmental Web sites for current course offerings.

Graduate Faculty

Full Members

Abray, L Jane - BA, MA, MPH, PhD (*Chair & Graduate Chair*)
Aster, Sidney - BA, MA, PhD
Austin, Robert - BA, MA, PhD
Bartlett, Kenneth - BA, MA, PhD
Bender, Daniel Eric - BA, PhD
Bergen, Doris - MA, PhD
Birla, Ritu - BA, MPH, PhD
Blanchard, Peter - BA, PhD
Bohaker, Heidi - BA, BEd, MA, DPhil
Bothwell, Robert - BA, AM, PhD
Brown, Elspeth - MA, PhD
Chen, Li - BA, MA, AM, JD
Chin, Carol - BA, MA, PhD
Cochelin, Isabelle - MA, PhD
Cohen, Paul - AM, PhD
Dowler, E Wayne - BA, AM, PhD
Eksteins, Modris - BPhil, BA, DPhil
Everett, Nicholas - BA, MA, PhD
Gervers, Michael - BA, MA, PhD
Goering, Joseph - BA, MA, MSL, PhD
Greer, Allan - BA, MA, PhD
Hall, Bert - BA, PhD
Halpern, Eric (Rick) - PhD
Hawkins, Sean - MA, PhD
Hood, Adrienne - PhD
Iacovetta, Franca - AB, AM, PhD
Ingham, John - BA, MA, PhD
Jenkins, Jennifer - BA, MA, PhD
Jennings, Eric - BA, PhD
Johnson, Robert - BA, PhD
Kasturi, Malavika - DPhil
Kawashima, Ken - BA, MA, PhD
Kazal, Russell - AB, MA, PhD
Keil, Charles - BA, MA, PhD
Kidd, Bruce - BA, AM, MA, PhD
King, Robert - AB, MA, PhD
Krivmae, Juri - AM, PhD
Lahusen, Thomas - MA, PhD
Lam, Tong - BSc, MA, PhD
Langins, Janis - BEng, MEng, MA, PhD
Loeb, Lori - BA, PhD

(Coordinator of Graduate Studies)

MacDowell, Laurel - BA, MSc, PhD
MacMillan, Margaret - BPhil, DPhil
Magocsi, Paul - BA, MA, PhD
Marrus, Michael - BA, MA, LLM, PhD
McGowan, Mark - BA, MA, PhD
Meyerson, Mark - BA, PhD
Mills, Kenneth - MA, PhD
Morgan, Cecilia Louise - BA, BA, MA, PhD
Mori, Jennifer - PhD
Murphy, Michelle - BA, PhD
Murray, Alexander - BA, PhD
Musisi, Nakanyike - PhD
Newton, Melanie - BA, PhD
Noel, Janet - BA, MA, PhD
Penfold, Steven - MA, PhD
Penslar, Derek - BA, MA, PhD
Phillips, James - LLB, MA, PhD
Pruessen, Ronald - BA, MA, PhD
Radford, Ian - BA, MA, PhD
Retallack, James - BA, DPhil
Rockel, Stephen - AM, DPhil
Ross, Jill - MA, PhD

Rossos, Andrew - BA, MA, PhD
Rothman, Natalie - MA, DPhil
Rutherford, Paul - BA, MA, PhD
Schmid, Andre - BA, BA, MA, PhD
Sharma, Jayeeta - BA, MPH, MA, PhD
Shorter, Edward - BA, MA, PhD
Silano, Giulio - BA, LLB, BEd, MA, PhD
Smith, Alison - AM, PhD
Smyth, Denis - BA, PhD
Tambe, Ashwini - BA, MA, PhD
Tavakoli-Targhi, Mohamad - BA, MA, PhD
Terpstra, Nicholas - BA, MA, PhD
Todd, Barbara - BA, MA, DPhil
Tran, Nhung - MA, PhD
Troper, Harold - BA, MA, PhD
Viola, Lynne - BA, MA, PhD
Wark, Wesley - BA, MA, PhD
Wayne, Michael - BA, BA, PhD
Williams, Derek - DPhil
Wilson, David - BA, MA, PhD
Wittmann, Rebecca - AB, MA, PhD
Wrobel, Piotr Jan - MA, PhD

Members Emeriti

Accinelli, Robert - BA, MA, PhD
Beattie, John - BS, MA, PhD
Berger, Carl - BA, MA, PhD
Berman, William - BA, MA, PhD
Bliss, J Michael - BA, MA, PhD
Brown, Robert Craig - MA, MA, PhD
Brownlee, John - BA, MA, MPH
Callahan, William - AB, MA, PhD
Cook, Ramsay - MA, PhD
Davis, Natalie - BA, MA, PhD
Dent, Julian - BA, MA, PhD
Dyck, Harvey - BA, MA, PhD
Estes, James - MA, PhD
Finlayson, Michael - BA, PhD
Goffart, Walter - AB, AM, PhD
Grendler, Paul - BA, MA, PhD
Helmstadter, Richard - BA, MA, PhD
Higgs, David - BA, MA, PhD
Israel, Milton - BS, MA, PhD
Klein, Martin - BS, MA, PhD
Kornberg, Jacques - BA, BA, PhD
Levere, Trevor - BA, MA, DPhil
Lloyd, Trevor - BA, MA, DPhil
Morton, Desmond - BA, MA, PhD
Nelson, Wendy - BS, MHSc
Raby, David - BA, PhD
Robertson, Ian - BA, MA, PhD
Robson, Ann - BA, MA, PhD
Van Kirk, Sylvia - BA, MA, PhD
Wagle, Nareandra - BA, MA, PhD

Associate Members

Hanssen, Jens - BPhil, DPhil
Kwee, Hui Kian - BA, MA, PhD
Virani, Shafique - PhD
Young, William - MA, PhD
History and Philosophy of Science and Technology

Faculty Affiliation
Arts and Science

Degree Programs Offered
History and Philosophy of Science and Technology – MA, PhD

Fields:
- Philosophy of Science
- History of Mathematics and Physical Sciences
- History of Medicine and Life Sciences
- History of Technology

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Book History and Print Culture
   - History and Philosophy of Science and Technology, MA, PhD

Overview
The Institute for the History and Philosophy of Science and Technology (IHPST) offers two degree programs: Master of Arts and Doctor of Philosophy. The Institute 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 participate in the IHPST colloquia, which are open to the University community.

Admission 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. All the forms required for application, including the standard application form, can be downloaded from the Institute's Web site. The Web site also contains detailed instructions for completing applications. Applications must be accompanied by transcripts, a statement of interest of approximately 300-500 words, 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.

Application deadline is February 1.

Program Requirements
- Minimum of 3.5 full-course equivalents (FCE). Among these, each student must take either:
  - 1.5 FCE History of Science Fundamentals courses (HPS 5000 series) and 1.0 FCE Philosophy of Science courses (History of Science Stream) or
  - 1.5 FCE Philosophy of Science courses and 1.0 FCE History of Science Fundamentals courses (HPS 5000 series) (Philosophy of Science Stream)

Contact and Address
Web: www.hps.utoronto.ca/
E-mail: ihpst.info@utoronto.ca
Telephone: (416) 978-5397
Fax: (416) 978-3003
• The balance of the curriculum is arranged in consultation with the student's faculty instructors and the guidance of the Director of Graduate Studies. Students make choices consistent with a commitment to either a History of Science Stream or a Philosophy of Science Stream.
• For students in the History fields, reading knowledge of French or German is required. Language instruction courses are not counted in the 3.5 FCE required for the degree.
• For students in the Philosophy field, one of the following is required: proficiency in introductory logic, reading knowledge of French, or reading knowledge of German. Logic and language instruction courses are not counted in the 3.5 FCE required for the degree.
• Full-time MA students normally complete all program requirements in the Fall and Winter sessions. Part-time students must complete all program requirements within five academic years.

Doctor of Philosophy

Minimum Admission Requirements
• General regulations of the School of Graduate Studies.
• One of:
  ○ a four-year University of Toronto bachelor's degree, or its equivalent 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, or
  ○ a University of Toronto master's degree in history and philosophy of science, 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 by which applicants are judged.
• Applications must be accompanied by a statement of interest of approximately 300-500 words, 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.
• Application deadline is February 1.
• 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
  o Computer-based TOEFL: 237 and 5 on the essay-rating component
  o Internet-based TOEFL: 93/120 and 22/33 on the writing and speaking sections

Program Requirements
• Students admitted on the basis of a four-year bachelor's degree must complete 6.5 full-course equivalents (FCE).
• Students admitted on the basis of a master's degree in History and Philosophy of Science must take a minimum of 3.0 FCE. A student whose MA degree does not exhibit sufficient breadth is required to take additional courses.
• All students must include at least 0.5 FCE from each of the following three historical periods: pre-renaissance (Classical Antiquity to 1400 AD); Renaissance (1400 AD) to end of the eighteenth century; beginning of the nineteenth century to the present. The breadth requirement may be met with courses in either the History of Science Stream or the Philosophy of Science Stream.
• The balance of the student's curriculum is arranged in consultation with the student's faculty instructors and is subject to the overall guidance of the Director of Graduate Studies. Students make choices consistent with a commitment to either a History of Science Stream or a Philosophy of Science Stream.
• For students in the History fields, reading knowledge of French or German is required. Language instruction courses are not counted among the 6.5 FCE required for the PhD.
• For students in the Philosophy field, one of the following is required: proficiency in introductory logic, reading knowledge of French, or reading knowledge of German. Logic and language instruction courses are not counted among the 6.5 FCE required for the PhD.
• Proposal for an extended research paper (required for HPS 2000Y). 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.
• All required courses, including HPS 2000Y, should be completed by the end of the student's second post-bachelor year. In general, all students should 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 HPS 2000Y research paper. Students falling below these standards may be recommended for termination from the program.
• Other competencies crucial to conducting research in the student's thesis area, as determined by the Supervisory Committee in consultation with the student and the Director of Graduate Studies. This may include, for example, competence in another language, mathematics, a science, or sociology.
• Pass a qualifying examination in areas related to the field of expected research. Examination is conducted by the student's Specialist Committee, normally three faculty members.
• Thesis proposal approved by the student's thesis Supervisory Committee and the Director of Graduate Studies.

Course List
Not all courses are offered every year. Consult the Institute regarding course offerings.

History and Philosophy of Science and Technology
HPS 1000Y Individual Reading and Research
HPS 1001H Individual Reading and Research
HPS 1002H Individual Reading and Research
HPS 1003H Individual Reading and Research
HPS 1005H Historical Topics in Scientific Methodology
HPS 1006H Historical Introduction to the Sociology of Scientific Knowledge
HPS 1015H The Scientific Revolution: Galileo to Newton
HPS 1017H Topics in the History of Physics in the Eighteenth and Nineteenth Centuries
HPS 1018H,Y Topics in the History of Technology
HPS 1019H History of Systematics
HPS 1020H History of Evolutionary Biology
HPS 1021H The Intellectual Context of Nineteenth-Century Science
HPS 1022H Religion and Science on Human Sexuality
HPS 1024H History of Physiology
HPS 1025H History of Immunology
HPS 1026H Body, Medicine, and Society in Early Modern Europe
HPS 1027H Chemistry from Lavoisier to Mendeleev
HPS 1029H The Invention of Modern Biology
HPS 1030H Newton and Mechanics
HPS 1031H The Birth of Quantum Mechanics
HPS 1032H History of Engineering
HPS 1033H Topics in the History of Medicine
HPS 1034H History of Psychology
HPS 1035H History of Psychiatry
HPS 1036H History of Medical Microbiology
HPS 1037H History of Medical Genetics
HPS 1038H History of the Social Sciences
HPS 1039H History of the Social Sciences
HPS 1040H History of the Social Sciences
HPS 1041H History of the Social Sciences
HPS 1042H The Biology of Death: Experimental Biology and Experimental Medicine, 1860-1940
HPS 1043H Science in the Renaissance
HPS 1044H Biology and Human Nature
HPS 1045H Human Genetics and the Eugenics Movement
HPS 1046H Teleology, Adaptation and Design
HPS 1050H Topics in Ancient Greek and Scientific Revolution Mathematics
HPS 1052H The Emergence of Modern Mathematics in the Eighteenth and Nineteenth Centuries
HPS 1060H History of Psychology
HPS 1101H Philosophy Applied to History of Science
HPS 1102H Laws of Nature
HPS 1103H Complexity, Reduction and Emergence in Contemporary Biology
HPS 1104H Topics in the Philosophy of Science: Models, Truth, and Representation
HPS 1105H Philosophy of Science
HPS 1106H History and Philosophy of the Social Sciences
HPS 1107H Topics in Philosophy of Science: Empiricism
HPS 1108H Philosophy of Physics
HPS 1109H Philosophy of Probability
HPS 1110H Philosophy of Economics
HPS 1111H Philosophy of Science and Religion
HPS 1112H Thought Experiments
HPS 1124H Studies in Ancient and Medieval Science
HPS 1215H Medieval Technology and Society
HPS 1217H Technology and War: 1090-1918
HPS 1500H Research Paper
HPS 2000Y Research Paper
HPS 3000H Historiography of Science and Technology
HPS 3001H The Marxist Theory of Knowledge and History
HPS 5001H Fundamentals of the History of Mathematics
HPS 5002H Fundamentals of the History of Physics
HPS 5004H Fundamentals of the History of Chemistry
HPS 5005H Fundamentals of the History of Biology
HPS 5006H Fundamentals of the History of Medicine
HPS 5007H Fundamentals of the History of Technology I
HPS 5008H Fundamentals of the History of Technology II
HPS 5009H Fundamentals of the History of Astronomy
HPS 5010H Fundamentals of the Philosophy of Science
HPS 5011H Fundamentals of the History and Philosophy of Science and Technology
JPH 2192H Philosophy of Science
JPH 2194H Topics in History of the Philosophy of Science

Outside Courses of Possible Interest
Check with individual departments for course availability during the academic year.

Book History and Print Culture
BKS 1000Y Book History and Print Culture
BKS 2000H Advanced Seminar in Book History and Print Culture
BKS 2001H Practicum in Book History and Print Culture

Classics
CLA 5013H Studies in Ancient Science

History
HIS 1269H The Social History of Medicine in the Nineteenth and Twentieth Centuries
HIS 1270H History of Psychiatry and Psychiatric Illness

See Department of History entry for more course offerings.
McLuhan Program in Culture and Technology
(C&T courses offered only if there is sufficient enrolment)
C&T 1004H Communications in History, Theory, Technology
C&T 1007H Perspective and Design in the Twentieth Century

Philosophy
PHL 2040H Medieval Philosophy
PHL 2045H Late Medieval Philosophy
PHL 2051H The Rationalists
PHL 2055H The Empiricists
PHL 2057H Seminar in Seventeenth-Eighteenth Century Philosophy
PHL 2062H Kant’s Critique of Pure Reason
PHL 2093H Fege
PHL 2095H Wittgenstein
PHL 2111H Seminar in Epistemology
PHL 2124H Seminar in Logic
PHL 2145H Bioethics
PHL 2160H Philosophy of Language
PHL 2195H Philosophy of Biology
PHL 2196H Topics in the Philosophy of Science
PHL 2199H Seminar in the Philosophy of Science

Graduate Faculty

Full Members
Bairgie, Brian - BA, MA, PhD
Berkovitz, Joseph - BSc, MA, PhD
Brown, James - BA, MA, PhD
Castle, David - BA, BSc, MA, PhD
Chakravartty, Anjan - BSc, MPH, MA, PhD

(Chair)
Chazan, Michael - BA, BA, MA, PhD
Dacome, Lucia - BA, MPH, PhD
Fehige, Yiftach - MA, PhD, DTh
Fraser, Craig - BA, MA, PhD (Director of Graduate Studies)
Friedmann, Harriet - AB, MA, PhD
Gayon, Jean - MA, MPH, PhD
Gillon, Brendan - BA, MA, AM, PhD
Gingras, Yves - BSc, MSc, PhD
Griffin, Nicholas - BA, PhD
Hall, Bert - BA, PhD
Hehmeyer, Ingrid - MSc, MSA, PhD
Howson, Colin - BSc, PhD
Hull, James - BSc, MA, PhD
Huneman, Philippe - BM, MMath, PhD
Jones, Alexander - BA, PhD
Kremensov, Nikolai - PhD
Langins, Janis - BEng, MEng, MA, PhD
Lightman, Bernard - BA, MA, PhD
Matthen, Mohan - PhD
Morrison, Margaret - BA, MA, PhD
Murphy, Michelle - BA, PhD
Penfold, Steven - MA, PhD
Sapp, Jan - BSc, MSc, PhD
Seager, William Edward - BA, MA, PhD

Shorter, Edward - BA, MA, PhD
Solomon, Susan - BA, MA, PhD
Stefanovic, Ingrid - BA, MA, PhD
Thompson, Paul - PhD
Upshur, Ross Edward - BSc, BA, MA, MD
Vicedo Castello, Maria - BA, MA, PhD, PhD
Wallis, Faith - BA, MLSC, MA, PhD
Walsh, Denis - BA, MPH, PhD
Warner, Jessica - BA, PhD
Wolfe, David - BA, MA, PhD
Yeang, Chen-Pang - BS, SM, PhD, SCD
Zeller, Suzanne - BA, MA, PhD

Members Emeriti
Barbeau, Edward - BA, MA, PhD
De Sousa, Ronald - BA, PhD
Goldstuck, Daniel - BA, BPhil, DPhil
Gottlieb, Calvin Carl - BA, MA, PhD
Levere, Trevor - BA, MA, DPhil
Mazumdar, Pauline - MSc, MD, PhD
Urquhart, Alasdair - MA, MA, PhD
Winsor, Mary - AB, MPH, PhD

History and Philosophy of Science and Technology 235
Human Development and Applied Psychology

Faculty Affiliation
Ontario Institute for Studies in Education

Degree Programs Offered
Child Study and Education – MA
Developmental Psychology and Education – MA, MEd, PhD
School and Clinical Child Psychology – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Developmental Science
   • Developmental Psychology and Education, MA, PhD
   • School and Clinical Child Psychology, MA, PhD
2. Neuroscience
   • Developmental Psychology and Education, MA, PhD
   • School and Clinical Child Psychology, MA, PhD

Overview
The Department of Human Development and Applied Psychology currently offers three graduate programs:
1. Child Study and Education
2. Developmental Psychology and Education
3. School and Clinical Child Psychology
Consult the OISE/UT Bulletin for further details of all graduate programs, including admission requirements, program requirements, and descriptions of programs as well as for information about financial support for students.

Students may begin the MEd program in Developmental Psychology and Education in September, January, or July, but all other programs in the Department commence in September.

Note: The department strongly discourages student requests to transfer between programs.

Contact and Address
Web: hdap.oise.utoronto.ca
Telephone: (416) 978-0917
Fax: (416) 926-4713

Department of Human Development and Applied Psychology
The Ontario Institute for Studies in Education of the University of Toronto (OISE/UT)
252 Bloor Street West
Toronto, Ontario M5S 1V6
Canada

Degree Programs
Child Study and Education
The MA in Child Study and Education program is offered at the Institute of Child Study (ICS), a centre of professional teacher training and research in childhood and education, which includes a Nursery through Grade 6 Laboratory School. Eligible graduates are recommended to the Ontario College of Teachers for an Ontario Teachers Certificate of Qualification, which qualifies the holder to teach in the primary and junior divisions of Ontario schools. Graduates are also recommended for Part 1 of the three-part qualification in Primary Education and are eligible for Part 2 of the three-part qualification in Primary Education following one year's successful teaching experience.

The philosophy of the 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 and learning environments result in educational practices that build on children's current levels of development.

Master of Arts

Minimum Admission Requirements
• Undergraduate studies equivalent to a University of Toronto four-year bachelor's degree with a 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.

Program Requirements
• Two years of full-time study, 8.0 full-course equivalents (FCE), including practicum placements and an internship as follows.
• **Year 1**
  - HDP 2200Y Child Study: Observation, Evaluation, and Reporting
  - HDP 2201H Childhood Education Seminar I
  - HDP 2210Y Introduction to Curriculum I: Core Areas
  - HDP 2220H Teaching Practicum
  - 1.0 elective FCE (equivalent to two half-courses)
  - Four 6-week half-day placements in kindergarten/early childhood, Grade 1-3, and Grade 4-6. A fifth placement is optional for those who would like more experience.
  - Registration in Year 2 of the program is contingent on successful completion of all Year 1 work.

• **Year 2**
  - HDP 2211H Theory and Curriculum I: Language and Literacy
  - HDP 2212H Theory and Curriculum II: Mathematics
  - HDP 2214H Introduction to Curriculum II: Special Areas
  - 0.5 elective FCE
  - 3.5 month full-time internship in an elementary classroom.

• During the internship session of Year 2, students are required to take HDP 2221Y Advanced Teaching Practicum, HDP 2202H Childhood Education Seminar II: Advanced Teaching, and 0.5 elective FCE.

• In both years, electives may be chosen from among master's level courses in the Department of Human Development and Applied Psychology and, in some cases, other departments. Elective courses that are especially recommended to students are listed in the Human Development and Applied Psychology Program Guidelines.

• Students wishing to qualify for Part 1 of the three-part qualification in Special Education complete at least one 6-week placement in a special education setting and take course HDP 2280H Introduction to Special Education and Adaptive Instruction, HDP 2292H Assessment for Instruction, or another special education course approved by their advisor.

• Students planning further graduate study in the foreseeable future are advised to undertake a Qualifying Research Paper (QRP) normally under the supervision of a qualified ICS faculty member.

### Developmental Psychology and Education

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. 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 and PhD programs are designed for students wishing to pursue an academic or research-based career. The MEd program is designed for the reflective teacher or other practitioner in education or related fields.

### Master of Arts

**Minimum Admission Requirements**

- Preparation equivalent to a University of Toronto four-year bachelor's degree with A- or better. Although most applicants will have a degree in Psychology, applicants with a four-year 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**

- The MA program is normally undertaken on a full-time basis and completed in one year.
- 3.0 full-course equivalents (FCE) plus a thesis. Courses should be chosen in consultation with the advisor.
  - HDP 1287H Introduction to Applied Statistics or an equivalent course.
  - HDP 1288H Intermediate Statistics and Research Design.
  - HDP 2252H Individual Reading and Research in Human Development and Applied Psychology: Master's Level.
  - Additional courses from the MA required courses listed in the Departmental Guidelines menu.
  - Students who have not had a previous course in human development are required to take HDP 1201H Child and Adolescent Development or an equivalent.
- In addition to their required 3.0 FCE, students who have not had a previous course in statistics are required to take HDP 1287H Introduction to Applied Statistics or an equivalent course.

### Master of Education

**Minimum Admission Requirements**

- Admission to the MEd program normally requires preparation equivalent to a University of Toronto four-year bachelor's degree with standing equivalent to a University of Toronto mid-B or better.
Degree Programs by Graduate Unit

- Applicants normally possess a teaching certificate and have one year of relevant professional experience.

Program Requirements
- The MEd program may be undertaken on a full-time or part-time basis. The length of time required to complete the program will vary depending on full-time or part-time status.
- 5.0 full-course equivalents (FCE)
- Year 1
  - HDP 1200H Foundations of Human Development and Education
  - HDP 2293H Interpretation of Educational Research
- 2.0 additional FCE must be selected from the Department Electives list, available on the departmental Web site or in the Human Development and Applied Psychology Program Guidelines.
- Remaining 2.0 elective FCE 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.

Doctor of Philosophy
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.

Minimum Admission Requirements
- Normally preparation equivalent to a relevant University of Toronto four-year 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 fulfil master's level requirements equivalent to the Master of Arts in Developmental Psychology and Education. Students who have not completed a master's degree will be required to submit a Qualifying Research Paper prior to final admission to the program.
- Required letters of recommendation and a second academic letter of recommendation.
- 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 must indicate in their statement of intent that they are currently in a career related to the proposed field of study, have a desire to continue with their current career, and have the capacity to secure blocks of time to enable concentrated study (e.g., through the employer's leave policy or study incentive system).

Program Requirements
- Full-time PhD students must complete their degree within six years. Flexible-time PhD students must complete their degree within eight years. Degree requirements for both programs are the same.
- 3.0 full-course equivalents (FCE), a comprehensive examination, and a thesis. Courses should be chosen in consultation with the faculty advisor.
- Year 1
  - HDP 3200H Research Proseminar in Human Development and Applied Psychology
  - 0.5 FCE in statistics and research methods from an approved menu
  - 1.0 FCE from the DPE doctoral program menu
  - 1.0 elective FCE
- Students who have an insufficient background in developmental psychology may have to complete additional courses.

School and Clinical Child Psychology
The School and Clinical Child Psychology program (SCCP) is an American Psychological Association (APA) accredited program. It provides theoretical, research, and professional training in preparation for psychological work with children in schools, clinics, private practice, and research settings. The program is designed to provide training in assessment, therapy, and other psychosocial and instructional interventions, professional consultation, and prevention. The degrees are also intended to meet the academic requirements for registration as a psychological associate (MA) or psychologist (PhD). Opportunities are available for research and clinical work with infants, young children, adolescents, and families. The program follows the scientist-practitioner model for psychological training recommended by the APA. Emphasis on designing, conducting, and interpreting scientific research parallels emphasis on exemplary clinical practice.

Master of Arts
Minimum Admission Requirements
- Normally a four-year bachelor's degree in Psychology, or its equivalent, defined as 6.0 full-course equivalents (FCE) 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 level) and at least 3.0 FCE at the 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
• The program is undertaken on a full-time basis and normally takes two years to complete.
• 5.0 full-course equivalents (FCE) (including a practicum course) and a thesis.
  o HDP 1215H Psychological Assessment of School-Aged Children
  o HDP 1216H Psychoeducational Assessment
  o HDP 1218H Seminar and Practicum in Assessment
  o HDP 1219H Ethical Issues in Applied Psychology
  o HDP 1220H Introduction to School and Clinical Child Psychology
  o HDP 1236H Developmental Psychopathology
  o HDP 1285H Psychology and Education of Children with Learning Disabilities
  o HDP 1288H Intermediate Statistics and Research Design
  o 0.5 FCE in cognitive/affective bases of behaviour from an approved course listing.
  o 0.5 elective FCE.
  o A listing of approved cognitive/affective bases of behaviour courses is available on the department Web site at hdp.oise.utoronto.ca/pages/sccp_ma.html, and in the Human Development and Applied Psychology Program Guidelines.
  o The practicum portion of HDP 1218H consists of 250 hours (one day a week from September to June) and is normally taken in a school setting.
• In addition, students will be required to take HDP 1201H Childhood and Adolescent Development and HDP 1287H Introduction to Applied Statistics, if equivalent courses have not been taken previously.
• Students must achieve a minimum of A- in at least one of HDP 1215H Psychological Assessment of School-Aged Children and HDP 1216H Psychoeducational Assessment and must pass HDP 1218H Seminar and Practicum in Assessment and Intervention with Children 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.

Doctor of Philosophy
At press time, program requirements for the PhD program were pending final approval.

Minimum Admission Requirements
• Normally a four-year bachelor's degree in Psychology or its equivalent and an OISE/UT MA in SCCP 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 OISE/UT MA in School and Clinical Child Psychology, the student will be required to take additional courses to receive equivalent training.

Program Requirements
• The program is undertaken on a full-time basis and normally takes four to five years to complete.
• 5.0 FCE, including a doctoral practicum course and an internship course, as follows:
  o HDP 3222Y Approaches to Psychotherapy Across the Lifespan
  o HDP 3240H Advanced Social and Emotional Assessment Techniques
  o HDP 3241H Seminar and Practicum in Assessment and Intervention with Children and HDP 1218H Seminar and Practicum in Assessment and Intervention with Children (normally taken in Year 2 of the program). The practicum portion of HDP 3241H consists of 500 hours (two days a week from September to June) and is normally taken in a clinical setting.
  o HDP 3242Y Internship in School and Clinical Child Psychology. The internship consists of a 1600 hour placement, normally taken on a full-time basis over the course of a year near the end of the student's program.
  o 0.5 FCE from each of the following menus (for a total of 2.0 FCE): Psychosocial Interventions, Instructional Interventions, Social Bases of Behaviour, and Biological Bases of Behaviour. A listing of courses in these menus is available on the department Web site at hdp.oise.utoronto.ca/pages/sccp_phd.html and in the Human Development and Applied Psychology Program Guidelines.
• A comprehensive examination
• A doctoral dissertation
• Students must have successfully completed all course work, passed the comprehensive examination, and have their dissertation completed or well underway, prior to commencing their internship.
• In addition, students will be required to take HDP 1201H Childhood and Adolescent Development, HDP 1287H Introduction to Applied Statistics, and HDP 3204H Contemporary History and Systems in Human Development and Applied Psychology, if equivalent courses have not been taken previously.
• Students must achieve a minimum of A- in at least one of HDP 1215H Psychological Assessment of School-Aged Children and HDP 1216H Psychoeducational Assessment and must pass HDP 1218H Seminar and Practicum in Assessment and Intervention with Children 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.
## Course List

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<td>HDP 3229H</td>
<td>Cognition and Emotion in Development</td>
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<tr>
<td>HDP 3230H</td>
<td>Understanding Narrative</td>
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<tr>
<td>HDP 3231H</td>
<td>Psychodynamic Bases of Therapy</td>
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<tr>
<td>HDP 3238H</td>
<td>Special Topics in Human Development and Applied Psychology</td>
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<tr>
<td>HDP 3240H</td>
<td>Advanced Social and Emotional Assessment Techniques</td>
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<tr>
<td>HDP 3241H*</td>
<td>Seminar and Practicum in Assessment and Intervention with Children</td>
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<tr>
<td>HDP 3242Y*</td>
<td>Internship in School and Clinical Child Psychology</td>
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<tr>
<td>HDP 3255H</td>
<td>Systemic Family Therapy</td>
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<tr>
<td>HDP 3282H</td>
<td>The Psychology of Critical Thinking</td>
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<tr>
<td>HDP 3286H</td>
<td>Developmental Neurobiology</td>
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<tr>
<td>HDP 3292H</td>
<td>Advanced Psychoeducational Assessment and Psychodiagnosis</td>
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</tbody>
</table>

*Courses which may continue over a program. The course is graded when completed.  
+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Degree Programs by Graduate Unit

Human Development and Applied Psychology

Individual Reading and Research Courses

HDP 3297H Biological and Psychological Foundations of Low Incidence Disorders
HDP 5271Y Assessment and Programming for Reading and Writing Difficulties
HDP 5281H Research and Theories of Reading Disability
HDP 5284H Assessment and Intervention in Multicultural/Bilingual Contexts
JDS 1233H Cognitive Development and Applications
JDS 1249H Social-emotional Development and Applications
JDS 3000H Advanced Methods in Developmental Science
JHC 1251H Reading in a Second Language
JPX 1001H Parenting: Multidisciplinary Perspectives

Individual Reading and Research Courses

HDP 2295H Individual Reading and Research in Adaptive Instruction and Special Education: Master's Level
HDP 3252H Individual Reading and Research in Human Development and Applied Psychology: Doctoral Level

Graduate Faculty

Full Members
Arnold, Mary Louise - BA, MA, EdD
Astinorion, Janet - BSc, BA, MA, PhD
Biemiller (Jr), Andrew - BA, BS, MA, PhD
Childs, Ruth - BS, MA, PhD
Cohen, Nancy - BSc, MS, PhD
Corter, Carl - BA, PhD
Cumming, Alistair - BA, MA, PhD
Ducharme, Joseph - BA, MPSY, PhD
Ferrari, Michel - BA, MA, PhD
Geva, Esther - BA, MA, PhD
Grusec, Joan - BA, PhD
Helwig, Charles - BA, PhD
Humphries, Thomas - PhD
Jenkins, Jennifer - BA, MA, PhD
Lee, Kang - BSc, MEd, PhD
Lewis, Marc - BA, MA, PhD
Moore, Chris - BA, PhD
Pelletier, Janette - AB, BE, MEd, PhD
Perlman, Michael - BA, MA, PhD
Peskin, Joan - BA, MPSY, PhD
Peterson-Badali, Michele - BA, MA, PhD
Rovet, Joanne - BSc, PhD
Scardamalia, Marlene - PhD
Schachar, Russell James - MD
Schmuckler, Mark - BA, PhD
Scott, Katreena - BA, MA, PhD
Stanovich, Keith - BA, MA, PhD
Tannock, Rosemary - BSc, MA, PhD
Volpe, Richard - BA, MA, PhD
Wiener, Judith - BA, MEd, PhD
Willows, Dale - PhD
Wolfe, Richard - BA

Woodruff, Earl - MA, PhD (Associate Chair)
Zelazo, Philip - PhD
Zucker, Kenneth - MA, PhD

Members Emeriti
Lindsay, Peter - BA, MA, PhD
Miezitis, Solveiga - BA, MA, PhD
Oatley, Keith - BA, PhD
Olson, David - BEd, MEd, PhD

Associate Members
Arnold, Paul - BSc, MD
Barrera, Maria - MA, PhD
Caspary, Arthur - BSc, MSc, PhD
Chen, Xi (Becky) - BA, MEd, MA, PhD
Eriks-Brophy, Alice - BEd, AB, MSL, PhD
Helms-Park, Renae - BA, MA, AM, DPhil
Henderson, Joanna - BA, MA, PhD
Hong, Guanglei - BA, MA, MEd, PhD
Kieran, Carolyn - BEd, BA, MA, PhD
Link, Nancy - BA, PhD
Manassis-Krumma, Katharina - MD
Martinussen, Rhonda - BE, MEd, PhD
Morgan, John - BA, BEd, MA
Moss, Joan - BA, MA, PhD
Pimm, David - BSc, MSc, MA, PhD
Toneatto, Anthony - PhD
Wlansky-Treynor, Pamela - PhD
Wu, Helen Xiaoyan - MA, PhD

Human Development and Applied Psychology 241
Immunology

Faculty Affiliation
Medicine

Degree Programs Offered
Immunology – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Developmental Biology
   - Immunology, PhD
2. Women’s Health
   - Immunology, MSc, PhD

Overview
The Department of Immunology provides a common forum for investigators in many areas of the University and an interdisciplinary research experience in immunology. Members and students in the department are located at the Medical Sciences Building, at the Ontario Cancer Institute, and at the Research Institutes of Mt. Sinai Hospital, Toronto General Hospital, Toronto Western Hospital, The Hospital for Sick Children, and Sunnybrook Hospital.

The department offers study programs towards the Master of Science and Doctor of Philosophy degrees in a wide range of immunological disciplines. These disciplines include molecular mechanisms of lymphocyte development and selection, T-cell and B-cell receptors, cell interactions, growth factor receptors, cytokine networks, antigen processing and presentation, signal transduction in lymphocytes, V(D)J recombination, anergy, apoptosis, transgenic and knock-out models, immuno-targeting and vaccine design, autoimmunity, AIDS, diabetes, and transplantation.

For more detailed information, see the graduate handbook available from the department or consult the Immunology home page on the Web site listed below.

Contact and Address
Web: www.immunology.utoronto.ca
E-mail: graduate.immunology@utoronto.ca
Telephone: (416) 978-6382
Fax: (416) 978-1938

Degree Programs

Immunology

Master of Science

Minimum Admission Requirements
- Four-year B.Sc., 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 course work necessary for their research.
- Applicants from outside North America are required to provide GRE (general) scores with their application.

Program Requirements
- Successful completion of IMM 1016H, IMM 1019H and IMM 2021H.
- A satisfactory thesis embodying the student’s research.
- Pass an oral examination based on research.

Doctor of Philosophy

Minimum Admission Requirements
There are three admission routes to the PhD program:
- Applicants may be accepted for direct entry with a B.Sc. degree, or equivalent, with at least an A- average in their final year.
- Applicants may be accepted first into the MSc program from a bachelor’s program with at least a B+ average and, conditional on excellent performance in the first year, may reclassify into the PhD program.
- Applicants already holding an MSc with at least a B+ average may be accepted directly into the PhD program.

Program Requirements
- The PhD program emphasizes research. In addition, the program requirements include completion of IMM 1016H, IMM 1017H, IMM 1100H, IMM 2100H, and an additional 0.5 full-course equivalent (FCE) from either Immunology or outside the department in a subject relevant to the thesis topic.
- Students are required to be on campus and participating full-time until the program requirements of research and course work have been completed.
- All students are examined in the second year of the program on a submitted research proposal and on relevant course material.
- Candidate must submit a thesis and defend it at an oral examination conducted by the School of Graduate Studies.
Course List
Not all courses are offered every year. Please consult the department for details.

IMM 1016H  Recent Advances in Basic Immunology: Part I (Fall)
IMM 1017H+ Recent Advances in Basic Immunology: Part II (Spring)
IMM 1019H  Master’s Seminar Course (Credit/No Credit)
IMM 1020H  Recent Advances in Clinical Immunology (Spring)
IMM 1100H* Doctoral Seminar Course (Credit/No Credit)
IMM 1429H  Developmental Immunology (Fall)
IMM 1430H  Advanced Immunobiology (Spring)
IMM 2021H* Special Topics in Immunology I (Credit/No Credit)
IMM 2100H* Special Topics in Immunology II (Credit/No Credit)
JBI 1428H  Molecular Immunology (Fall)

Graduate Faculty

Full Members
Anderson, Michele - BS, PhD
Barber, Brian - BSc, MSc, PhD
Berger, Stuart - BSc, MSc, PhD  (Coordinator of Graduate Studies)
Berinstein, Neil - MD
Booth, James - BSc, PhD
Carlyle, James - PhD
Danska, Jayne - AB, PhD
Dosch, Hans - MD
Fish, Eleanor - BSc, MPH, PhD
Gommberman, Jennifer - BSc, PhD
Gorzynski, Reginald - BSc, BA, MA, MD, PhD
Guidos, Cynthia - BSc, PhD
Hakem, Razqallah - PhD
Inman, Robert - BA, MD
Iscove, Norman - MD, PhD
Isenman, David - BSc, BSc, PhD
Jongstra, Jan - MSc, PhD
Julius, Michael - BSc, PhD
Kelvin, David - MAsc, PhD
Letarte, Michelle - BSc, PhD
Levy, Gary - BSc, MD
MacDonald, Kelly - MD
Mak, Tak - BSc, MSc, PhD
Martin, Alberto - BSc, MSc, PhD
Ohashi, Pam - BSc, PhD
Ostrowski, Mario - MD
Paige, Christopher - BSc, PhD
Penninger, Josef - MD
Poussier, Philippe - MD
Ratcliffe, Michael - PhD  (Chair & Graduate Chair)
Rolfman, Chaim - MD
Rottapel, Robert - BA, MD
Rubin, Laurence - MD
Schuh, Andre - MD
Silverman, Earl - MD
Siminovitch, Katherine - MD
Tsui, Florence - BSc, MSc, PhD
Watts, Tania - BSc, PhD
Williams, David - BSc, MSc, PhD
Wither, Joan - MD, PhD
Wu, Gillian - BSc, MSc, PhD
Yeung, Rae - DRMED, MD
Zhang, Li - MSc, MD, PhD
Zuniga-Pflucker, Juan Carlos - BSc, PhD

Members Emeriti
Hay, John - BSc, MSc, PhD
Painter, Robert - BSc, PhD
Shultzman, Marc - AB, PhD

Associate Members
Dunn, Shannon - BSc, MSc, PhD
Jongstra-Bilen, Jenny - BSc, MSc, PhD
Keystone, Edward - BSc, MD
Philpott, Dana - BS, PhD
Rast, Jonathan - MS, PhD

* Courses which may continue over a program. The course is graded when completed.
+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Degree Programs by Graduate Unit

Industrial Relations and Human Resources

Faculty Affiliation
Arts and Science

Degree Programs Offered
Industrial Relations and Human Resources
– MIRHR, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Ethnic and Pluralism Studies
   • Industrial Relations and Human Resources
     – MIRHR, PhD

Overview
The Master of Industrial Relations and Human Resources (MIRHR) and Doctor of Philosophy (PhD) degree programs benefit 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 degree may be taken on a full-time or part-time basis.

The MIRHR is a professional degree program designed to train students in the latest innovations and best practices within industrial relations, human resources management and labour market analysis. The degree provides specialized study of the employment relationship using an interdisciplinary approach. Integral to the MIRHR degree is training in the essential analytical, research and interpersonal skills required of the effective industrial relations professional.

The PhD in Industrial Relations and Human Resources program is a research-oriented program of study, designed to provide students with a thorough knowledge of the field and strong research skills. Offered only on a full-time basis, students normally fulfill a two-year residency requirement that enables their full participation in the activities associated with the program.

Contact and Address
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Telephone: (416) 978-2927
E-mail: cir.info@chass.utoronto.ca

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University of Toronto
121 St. George Street
Toronto, Ontario M5S 2E8
Canada

Degree Programs

Industrial Relations and Human Resources

Master of Industrial Relations and Human Resources

Minimum Admission Requirements
• Applicants to the two-year MIRHR program require an appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university. A minimum grade average of B+ (77%) in each of the final two years of the degree is required.
• Applicants to the 12-month MIRHR advanced standing option require an appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university. The degree major or specialization must be in one of the following areas: employment relations; industrial relations; labour studies; or administration or commerce with a major in industrial relations or human resources. A minimum grade average of B+ (77%) in each of the final two years of the degree is required.
• Applicants whose degrees are not from Canadian universities are required to submit results from the Graduate Record Examination (GRE). The Graduate Management Admission Test (GMAT) scores will be accepted as a substitute. Although there is no minimum score requirement, performance on either the GRE or GMAT 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). The following minimum scores are acceptable:
  o Paper-based TOEFL exam: 600 and 5 on the TWE
  o Computer-based TOEFL exam: 250 and 5 on the essay rating component
  o Internet-based TOEFL exam: 100/120 and 22/30 on the writing and speaking sections
• Note: Due to space limitations, applicants meeting the minimum admission requirements are not guaranteed admission. Applicants are evaluated on their individual merits; the Centre for Industrial Relations and Human Resources 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 will take both foundation and core courses. Failure in any course (that is, a grade of less than B-) will require a review of the student's program by the department.

Two-Year MIRHR Program
• Year 1 of the two-year program is spent acquiring a foundation in industrial relations and human resources and includes courses in economics, law, quantitative methods, organizational behaviour, and sociology. Courses marked (PR) require prerequisites; further information may be obtained from the Centre.

Year 1: Foundation Courses
Students must take 5.0 full-course equivalents (FCE), of which 4.0 FCE are required courses, as follows:
- IRE 1002H Applied Statistics in Industrial Relations
- IRE 1010H Economic Environment of Industrial Relations and Human Resources
- IRE 1126H Labour Market Policy (PR)
- IRE 1362H Organizational Behaviour (Exclusion: MGT 1362H Managing People in Organizations)
- IRE 1609H Strategic Human Resources Management (Exclusion: MGT 2609H Strategic Human Resources Management)
- IRE 1610H Industrial Relations (Exclusion: MGT 2610H Industrial Relations)
- IRE 1611H Sociology of Industrial Relations
- IRE 1126H Labour Market Policy (PR)
- IRE 1270H Law of Labour Relations
- IRE 1338H Law in the Workplace
  - Courses are chosen from the list of elective courses below to fill the requisite 5.0 FCE in the first year of the program.
  - Students admitted into the two-year MIRHR program may apply to take IRE 4000H, a non-credit course designed to assist students to gain summer employment in a position that will provide them work experience relevant to their field of study.
  - Students in the MIRHR program are required to achieve a mid-B average in the first year of the program (or in the first 5.0 FCE) in order to continue or to pass into Year 2.

Year 2: Core Courses
Students must take 4.0 FCE to complete Year 2. This includes core courses in Industrial Relations and Human Resources (1.5 FCE):
- IRE 2001H Foundations and Current Issues in Industrial Relations and Human Resources (PR)
- IRE 2002Y Research Methods in Industrial Relations and Human Resources (PR)
  - Courses are chosen from the list of elective courses below to fill the requisite 4.0 FCE in the second year of the program.

All degree requirements for students in the two-year program must be completed within six years from the date of first enrolment in the MIRHR program.

Advanced Standing Option - 12-Month MIRHR Program
• 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-August). During this time, students will also take elective courses to increase their breadth of knowledge or to focus on their areas of interest.

Doctor of Philosophy
Minimum Admission Requirements
• Students are admitted under the general regulations of the School of Graduate Studies and require a Master of Industrial Relations and Human Resources (MIRHR) degree from the University of Toronto, or its equivalent. Other students who meet the admission requirements may be required to enrol in a preparatory year consisting of courses from the MIRHR program. Students with a bachelor's degree in industrial relations and human resources, or in a related field of study, may be considered for admission to the PhD (direct entry) if they have exceptional academic standing and have demonstrated quantitative skills and research ability.
• At least a B+ standing, or equivalent, is required in the previous master's program. Academic performance in courses relevant to the applicant's area of study must be at least a B-.
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). The Graduate Management Admission Test (GMAT) will be accepted as a substitute. Although there is no minimum score requirement, performance on either the GRE or GMAT 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). The following minimum scores are acceptable:
  - Paper-based TOEFL exam: 600 and 5 on the TWE
  - Computer-based TOEFL exam: 250 and 5 on the essay rating component
  - Internet-based TOEFL exam: 100/120 and 22/30 on both the writing and speaking sections
- Applicants may be required to appear for a personal interview and/or submit copies of recent academic work.

Program Requirements
- Requirements that are normally met in the first two years 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 (FCE) as follows:
  - The core requirement in Industrial Relations and Human Resources is met by completing:
    - IRE 3004H Special Topics in Employment and Industrial Relations
  - The research and statistics requirements are met by completing:
    - IRE 3002Y Research Seminar I
    - IRE 3003H Research Seminar II (PR)
    - MGT 3062H Methods and Research in Organizational Behaviour and Industrial Relations
    - 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 the student's second year in the program.
- Intensive work on the dissertation will also begin in the second year of the PhD program. The thesis topic and name of supervisor must be submitted no later than March 31 of the second year.
- Students who are in their third and fourth years of study must enrol in the following courses:
  - IRE 3005H Workshop in Industrial Relations I (Credit/No Credit)
  - IRE 3006H 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 the third year of study (or fourth year for direct entry PhD students).
- Proficiency in French and/or other languages will be required when the student's supervisor deems it necessary for dissertation research or when the Centre deems it necessary for the student's field.
- 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.
- All requirements for the degree must be completed within six years from the date of first enrolment in the PhD program.

Course List
Not all courses are offered every year. Please consult the Centre for Industrial Relations and Human Resources timetable which lists available courses in each session.

Elective Courses
The Centre offers key required and elective courses in Industrial Relations and Human Resources. Students take the balance of their courses from those available in other departments and faculties. This range of options enables students to examine industrial relations and human resources from the perspective of a variety of disciplines.

MIRHR students are not permitted to take more than a total of 1.5 FCE electives in any one unit outside the Centre for Industrial Relations and Human Resources without the permission of the Graduate Coordinator. Since outside units normally give preference to their own students, MIRHR 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 the Centre. Since these courses are changed from time to time, students must consult the Centre for current information.

Some courses are offered only in alternate years, and 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.

Courses marked (PR) require prerequisites; additional information may be obtained from the Centre.

Further details concerning specific courses and brief course descriptions are available on the Centre's Web site.
Degree Programs by Graduate Unit

Industrial Relations and Human Resources

IRE 1260H Seminar on Labour Arbitration (PR)
IRE 1270H Law of Labour Relations
IRE 1339H Law in the Workplace
IRE 1615H Labour and Globalization (PR)
IRE 1620H Labour Relations Problems in Historical Perspective
IRE 1625H Contemporary Issues in Public Sector Labour-Management Relations (PR)
IRE 1630H Negotiation Skills, Theory and Practice (PR)
IRE 1635H Advanced Negotiations: Theory and Process (PR)
IRE 1640H Contemporary Trade Unionism: Issues, Challenges, Strategy (PR)
IRE 1645H Alternative Dispute Resolution in the Workplace: Theory and Practice (PR)
IRE 1650H Designing Systems for Managing Workplace Conflict (PR)
IRE 1673H Special Topics in Industrial Relations and Human Resources
IRE 1702H Managing Organizational Change (PR)
IRE 1725H Cross Cultural Differences in Organizational Contexts (PR)
IRE 2021H Accounting Information and Industrial Relations
IRE 2021H Special Topics in Industrial Relations and Human Resources
IRE 3615H Creating High Performance Reward Systems (PR)
IRE 3620H Topics in Compensation (PR)
IRE 3630H Diversity and Inclusiveness in the Workplace (PR)
IRE 3635H Compensation (PR)
IRE 3645H Recruitment and Selection (PR)
IRE 3650H Human Resource Planning and Strategy (PR)
IRE 4000H Work Term in IR/HRM (Credit/No Credit)
IRE 1090H A reading course or individual research in an approved field
IRE 2090H A reading course or individual research in an approved field

Political Science

JPP 2042H Labour Policy

Public Health Sciences

CHL 5904H Perspectives in Occupational Health and Safety—Legal and Social Context

Social Work

SWK 4403H Women and Social Policy in Canada

Sociology

SOC 603H Peace and Conflict Studies
SOC 609H Sociology of Work I
SOC 611H Sociology of Work II

Other Elective Courses

With the approval of the Graduate Coordinator, students may register in the following credit/no credit course:
IRE 4000H Work Term in IR/HRM (Credit/No Credit)

Reading Courses

In certain circumstances, and with the approval of the Graduate Coordinator, students may be allowed to take a reading or research course:
IRE 1090H A reading course or individual research in an approved field
IRE 2090H A reading course or individual research in an approved field

Graduate Faculty

Full Members
Amernic, Joel - BSc, MBA
Campolieti, Michele - BSc, MA, PhD
Foot, David - BEC, AM, PhD
Gunderson, Morley - BA, MA, PhD
Holness, D Linn - MHSc, MD
Hyatt, Douglas - BA, MA, PhD
Krashinsky, Harry - MA, PhD
Krashinsky, Michael - SB, MPH, AM, PhD
Langille, Brian A - LLB, BCL, BA
Latham, Gary - BA, MS, PhD
MacDowell, Laurel - BA, MS, PhD
Macklem, Patrick - BA, LLB, LLM
Quarter, Jack - PhD
Reid, Frank - BA, MSc, PhD
Reitz, Jeffrey - PhD
Rotundo, Maria - BA, MA, DBA
Saks, Alan - BA, MSc, PhD

Economics

ECO 2800H Labour Economics I
ECO 2801H Labour Economics II (PR)
ECO 2807H Economics and Demographics (PR)

Management

MGT 2129H Forecasting Models and Econometric Methods (PR)
MGT 2604H Organization Change and Development (PR)

MGT 2605H International Organizational Behaviour (PR)
MGT 2612H Managing Talent for Global Operations
MGT 2914Y Not-for-Profit Consulting
MGT 2615H Special Topics in Organizational Behaviour
MGT 2804H Multivariate Methods for Management (PR)

Industrial Relations and Human Resources 247
Verma, Anil - BTech, MBA, DPhil (Interim Director)
Welsh, Sandy - BA, MA, PhD
Whyte, Glen - LLB, MA, MPH, MBA, PhD
Xie, Jia Lin - PhD

Associate Members
Frazer, Garth - BE, BM, MPH, MA, PhD
Heathcote, Joanna - BA, MA, PhD
Radhakrishnan, Phanikiran - DPhil
Rittich, Kerry - BAMUSIC, LLB, SJD
Riznek, Lori - BA, MA, DA
Sawchuk, Peter - BSc, BEd, PhD
Scott, Kristyn - BA, MA, PhD
Information

Faculty Affiliation
Information

Degree Programs Offered
Information – MI, Combined JD/MI
Information Studies – PhD
Museum Studies – MMSt

Diploma Programs Offered
Information Studies - Graduate Diploma of Advanced Study in Information Studies (a post-master's diploma)

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Information, MI
   • Information Studies, PhD
2. Aging, Palliative and Supportive Care Across the Life Course
   • Information, MI
   • Information Studies, PhD
3. Book History and Print Culture
   • Information, MI
   • Information Studies, PhD
   • Museum Studies, MMSt
4. Environmental Studies
   • Information, MI
   • Information Studies, PhD
5. Knowledge Media Design
   • Information, MI
   • Information Studies, PhD
6. Sexual Diversity Studies
   • Information, MI
   • Information Studies, PhD
   • Museum Studies, MMSt
7. Women and Gender Studies
   • Information, MI
   • Information Studies, PhD
8. Women's Health
   • Information, MI
   • Information Studies, PhD

Overview
The Faculty of Information combines strengths in the stewardship and curation of cultural heritage (libraries, archives, and museums) with leadership in the future of information practice as society is transformed by the rise of digital technologies.

The Master of Information program allows students to explore the breadth of information and to focus on one or more areas of study.

The Combined Juris Doctor/Master of Information program is offered jointly by the Faculty of Law and the Faculty of Information. Students receive two degrees, information and law.

The Doctor of Philosophy program in information studies provides opportunities for advanced scholarly inquiry into theoretical aspects of information and in the empirical investigations of information in various contexts.

The Master of Museum Studies 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.

Contact and Address
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E-mail: inquire@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

Degree Programs

Information

Master of Information

Minimum Admission Requirements
- SGS general regulations. Application deadlines are available on the Faculty of Information Web site.
- Four-year bachelor's degree with at least a B average (3.0 GPA) from a university recognized by the University of Toronto. Generally, successful applicants hold an academic level of B+ (3.3 GPA) or higher in the final year.
- 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 meet current admission requirements and who hold a BLS degree from the University of Toronto, or its equivalent from an approved university, may be admitted to the MI program with advanced standing. Such students may be required to take...
additional courses if certain requisite instruction is lacking.

- Applicants wishing to focus on information systems must also have completed the equivalent of 2.0 approved full-course equivalents (FCE) in computer science and 1.0 approved FCE in mathematics. (Removal of the foregoing requirement is pending governance approval.)

- 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 FCE 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 facility 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:
  1. 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)
     - Computer-based TOEFL exam: 250 with 5.5 on the essay rating component
     - Internet-based TOEFL exam: 100/120 with 24/30 on the speaking section and 27/30 on the writing section.
  2. Michigan English Language Assessment Battery (MELAB) with a minimum required score of 95.
  3. International English Language Testing System (IELTS) with a minimum required score of 8.0.
  4. English Language Diagnosis and Assessment (ELDA)/Certificate of Proficiency in English (COPE) with a minimum required score of 6 and at least 3 in the writing portion.

Program Requirements

- The Faculty expects students to be competent in their use of information and communication technologies as appropriate to their programs of study.
- 8.0 full-course equivalents (FCE) as follows.
  - Course option: All students must complete 2.0 FCE core courses and have their program of study approved by the Program Director. A number of examples of pre-established programs of study is available to students.
  - 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. Students must complete 2.0 FCE core courses, have their program of study approved by the Program Director, complete a research methods course appropriate to their program of study with a final grade of at least A-, and complete a thesis (equivalent to 3.0 FCE). Faculty approval is required. 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.
- All requirements must be completed satisfactorily within 6 years from first enrolment in the program. Total time from original registration, including lapsed time, is counted as the time allowed to complete the degree requirements.

- Non-Degree Programs (Special Student Status)
  Special Student status is normally intended for fully qualified graduates who wish to update their knowledge. Programs for Special Students are administered under the general regulations. Details are available on the Faculty of Information Web site. Courses in the PhD program are not open to Special Students.

- Diploma Program
  The Graduate Diploma of Advanced Study in Information Studies is a post-master's diploma. Applicants must have a University of Toronto MI, MLS, or MIS degree or equivalent. The Graduate Diploma requires 24 credit hours (i.e., 4.0 FCE). The graduate Diploma program, which may be taken on a full-time or part-time basis, will be tailored to the individual's needs and interests with courses selected in consultation with their advisor. Complete details are available on the Information Web site at www.ischool.utoronto.ca.

Combined Juris Doctor/Master of Information

Minimum Admission Requirements

- Applicants must be admitted to both the Faculty of Law and the Faculty of Information; therefore, applicants must satisfy the admission requirements of both faculties independently, and all applicants must complete the Law School Admission Test (LSAT) and all admission requirements of the Faculty of Information. A separate application to each Faculty must also be submitted. Please obtain application information from each Faculty.

- Students who have completed the first year of either the Juris Doctor or the Master of Information program may apply for admission to the combined JD/MI program by meeting the normal application and admission requirements of the other Faculty and notifying their Faculty Registrar.

Program Requirements

- Students complete the program requirements of the JD and the MI.
- At the completion of the four-year integrated program, the successful student is awarded both the Juris Doctor and the Master of Information degrees, which, if taken separately, would require a minimum of five years of study.
Course List

Not all courses are offered every year. Consult the Faculty of Information Web site for the annual course offerings; course descriptions; details of prerequisites, co-requisites, and permissions. Inquiries concerning the selection of courses to be offered in any given session should be directed to the Faculty of Information.

INF 1001H Knowledge and Information in Society
INF 1002H Representation, Organization, Classification, and Meaning-Making
INF 1003H Information Systems, Services, and Design
INF 1004H Information Workshop
INF 1210H Information and Its Social Contexts
INF 1230H Management of Information Organizations
INF 1240H Research Methods
INF 1310H Information Resources and Services
INF 1311H Information Technology Applications
INF 1320H Introduction to Bibliographic Control
INF 1325H Online Information Retrieval
INF 1330H Archives Concepts and Issues
INF 1331H Archival Arrangement and Description
INF 1340H Information Workshop
INF 1341H Analyzing Information Systems
INF 1342H Designing Information Systems
INF 1343H Introduction to Database Management and Design
INF 2010H Reading Course
INF 2011H Reading Course
INF 2101H Information Innovations Design Studio I
INF 2110H Design and Evaluation of Information Literacy Programs
INF 2115H Data Librarianship
INF 2120H Conservation and Preservation of Recorded Information
INF 2121H Specialized Archives
INF 2124H Surveillance and Identity
INF 2125H Information and Culture in a Global Context
INF 2126H Public Library Services to Culturally Diverse Communities
INF 2127H Collection Development, Evaluation, and Management
INF 2128H Serials Management
INF 2131H The Literature of the Humanities and Social Sciences
INF 2132H The Literature of Science and Technology
INF 2133H Legal Literature and Librarianship
INF 2134H Business Information Resources
INF 2135H Health Sciences Information Resources
INF 2136H Government Information and Publications
INF 2137H International Organizations: Their Documents and Publications
INF 2138H United States Government Information
INF 2139H Young People: Collection Development
INF 2140H Young People: Current and Emerging Information Practices
INF 2142H Theories of Classification and Knowledge Organization
INF 2144H Subject Approach to Information
INF 2145H Creation and Organization of Bibliographic Records
INF 2149H Administrative Decision Making in Information Organizations
INF 2151H Human Resources Management in Organizations
INF 2152H Advocacy and Library Issues
INF 2153H Technical Services: Organization and Administration
INF 2154H Reference Service: Organization and Administration
INF 2155H The Public Library in the Community: Developing a Critical Practice
INF 2157H Theory and Practice of Intellectual Freedom in Libraries
INF 2158H Management of Corporate and Other Special Information Centres
INF 2159H Analytical and Historical Bibliography I
INF 2161H History of Books and Printing
INF 2162H Rare Books and Manuscripts
INF 2163H Research Collections in Canadiana
INF 2164H Authority and Credibility in Online Communities
INF 2165H Social Issues in Information and Communication Technologies
INF 2166H Telecommunications for Information Systems
INF 2167H Community Informatics
INF 2168H Information Retrieval Systems
INF 2169H User-Centred Information Systems Development
INF 2171H Major Subject Heading and Classification Systems
INF 2172H Readers' Advisory: Reference Work and Resources
INF 2173H Information Professional Practicum
INF 2174H History of Records and Records-Keeping
INF 2175H Managing Organizational Records
INF 2176H Information Management in Organizations—Models and Platforms
INF 2177H Architcuting Information, Systems, and Organizations
INF 2178H Designing Electronic Descriptive Tools
INF 2179H Interacting with Information Systems
INF 2180H Archives: Access, Advocacy, and Outreach
INF 2181H Information Policy
INF 2182H Information Visualization
INF 2183H Knowledge Management and Systems
INF 2184H Appraisal for Records Retention and Archives Acquisition
INF 2185H Database Techniques for Managing Structured Documents
INF 2186H Metadata Schemas and Applications
INF 2187H Introduction to Inclusive Design
INF 2195H Special Topics in Information Studies: Media Theory
INF 2196H Special Topics in Information Studies: Laboratory in Inclusive Design
INF 2198H Special Topics in Information Studies: Visual Communication and Culture Professionals: Developing a Critical Practice
INF 2221H Digital Divide and Information

Information 251
INF 2241H  Critical Making: Information Studies, Social Values, and Physical Computing
INF 2300H  Special Topics in Information Studies
INF 2301H  Special Topics in Information Studies: Project Management
INF 2302H  Special Topics in Information Studies: Art Librarianship in Theory and Practice
INF 2303H  Special Topics in Information Studies: Issues in Children’s and Young Adults’ Services
INF 2304H  Special Topics in Information Studies: Information Security
INF 2305H  Special Topics in Information Studies: The Information Experience in Context
INF 2306H  Special Topics in Information Studies: An Introduction to Services Science
INF 2307H  Special Topics in Information Studies: Information Ethics
INF 2308H  Special Topics in Information Studies: Managing Audio Visual Material
INF 2309H  Special Topics in Information Studies: Design of Electronic Texts
INF 2310H  Special Topics in Information Studies: Critical Histories of Information Technologies
INF 2331H  Introduction to Digital Humanities

Information Studies

Doctor of Philosophy

Minimum Admission Requirements

- Average of at least B+ in a four-year University of Toronto bachelor’s degree program, or its equivalent, and an average of at least B+ in a University of Toronto master’s degree program, or its 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 2 or 3 semesters, or by completing 5.0 to 7.5 full-course equivalents (FCE), will normally be required to take additional courses in the MI program.
- The major subject for doctoral study proposed by the applicant must be supported by relevant courses taken at the master’s level, including appropriate courses in research methods and statistics; an applicant may be required to take make-up courses to obtain this support.
- Admission is limited to graduates of high intellectual ability who have an interest in research. Evaluation of applicants is based on academic records and three academic letters of reference. A personal interview applicant may be required to take make-up courses to obtain this support.
- Applicants whose first language is not English should consult the English Language Facility section of the Faculty’s calendar.
- Admission procedures are described in the General Regulations section of this calendar.
- Doctoral students are admitted in September.

Meeting the minimum requirements of FIS and of SGS does not guarantee admission.

Program Requirements

- Since PhD students have different backgrounds and areas of interest, programs are developed on an individual basis. The focus of each program enables the student to achieve satisfactory standards of competence in major and minor areas of study in order to carry out the research and writing of the thesis. The program of study developed by the student in conjunction with the faculty advisor must be approved by the FIS Committee on Standing and by SGS.
- In Phase 1, students are required to complete:
  - a major subject (1.0 FCE): FIS 3004Y Advanced Topics in Information Studies
  - a minor subject (1.0 FCE)
  - FIS 3005Y Advanced Seminar in Research Methodologies
  - a Determination of Research Readiness (written and oral), after completing the requirements of the major and minor subjects, and before developing a proposal for the dissertation research
    - a thesis
    - a final oral examination
    - Students are expected to participate in the Colloquium Series of the Faculty and in other research events.
    - Other courses appropriate for the student’s research may also be required.
- In Phase 2 students focus on the choice and development of the thesis topic and research for the thesis.
- Reading knowledge of a language other than English may be required.

Full-time PhD Program

The PhD program is designed to be completed within four years of first enrolment in the program. All requirements must be completed within six years from first enrolment. PhD students must be regularly registered in SGS during each year of the program.

Flexible-time PhD Program

The flexible-time PhD program is intended for practicing professionals whose employment is related to their intended field of research interest. The flexible-time PhD differs from the full-time PhD only in design and delivery, not in requirements. Students must ensure that they have adequate time on campus to attend classes and to fulfill the academic requirements for an advanced research degree. Students must spend at least two full-time sessions on campus. Degree requirements are designed to be completed within eight years of first enrolment in the program.

Course List

INF 3004Y  Advanced Topics in Information Studies
INF 3005Y  Advanced Seminar in Research Methodologies
Degree Programs by Graduate Unit

Museum Studies

Master of Museum Studies

Minimum Admission Requirements

- Four-year BA or BSc with an overall average grade of at least B+, or equivalent from a recognized university.
- Applicants must satisfy the Museum Studies program that they are capable of independent research in museum studies at an advanced level. Demonstrated previous experience in museums or related cultural organizations will also be considered. Admission to this program is competitive.
- One official transcript of the applicant’s academic record from each university attended, complete to the time of application.
- A letter of intent (maximum 500 words), indicating areas of interest and experience in museum studies, heritage agencies, or comparable institutions.
- A resume.
- Three letters of reference, written on institutional or work-related letterhead. Appropriate referees include university professors (preferred), museum professionals, or others relevant to the field of museology.
- Other relevant information considered by the applicant to strengthen his or her application.
- Applicants are admitted as students for the MMSt under the General Regulations of the School of Graduate Studies.

Program Requirements

- Minimum requirement is 7.0 full-course equivalents (FCE) including 2.0 FCE required courses and 5.0 elective courses, of which 3.0 FCE must be internal (Museum Studies) elective courses.
- Before the end of their program, students whose primary language is English will be required to demonstrate a reading knowledge of a second language (preferably French) by means of a written exam and achieve a minimum grade of 70%.

Course List

Not all courses are offered every year. Please consult the Museum Studies Web site for course availability. The minimum requirement for the MMSt degree is 7.0 full-course equivalents (FCE).

**MMSt Required Courses** *(2.0 FCE)*

- MSL 1150H Collection Management
- MSL 1200H Fundamentals in Museum Planning and Management
- MSL 2331H Exhibitions, Interpretation, Communication
- MSL 2370H Museums and Cultural Heritage I: Context and Critical Issues

**MMSt Elective Courses** *(total 5.0 FCE for internal and external electives)*

**Internal (Museum Studies) Elective Courses** *(at least 3.0 FCE)*

- MSL 1000H Museums and Public History
- MSL 1100H Museology and Theory
- MSL 1300H Contemporary Theories of Art and Culture
- MSL 1350H Museums and their Publics
- MSL 2000H Curatorial Practice
- MSL 2050H Curating Science
- MSL 2100H Museum Environment
- MSL 2200H The History of Museums in Canada
- MSL 2225H Architecture and Museums
- MSL 2240H The Photographic Record
- MSL 2250H Topics on Museums and Society in Canada
- MSL 2325H Museums and New Media Practice
- MSL 2330H Interpretation and Meaning-Making in Cultural Institutions
- MSL 2332H Public Programs and Education
- MSL 2340H Issues in Cultural Policy and Contemporary Culture
- MSL 2350H Museum Planning and Management: Projects, Fundraising and Human Resources
- MSL 2371H Museums and Cultural Heritage II: Society, Responsibility, and Cultural Change
- MSL 2500H Museums and Information
- MSL 3000Y Internship
- MSL 4000Y Exhibition Project
- MSL 5000Y Research Methods
- MSL 5050H Special Studies

**External Elective Courses**

Courses relevant to the Museum Studies program and student interests are available within the listings of other graduate units as found in this calendar.

+ Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
McLuhan Program in Culture and Technology

The McLuhan Program in Culture and Technology does not offer a degree program. Students registered in a graduate program may take McLuhan program courses for credit with the permission of their home department.

C&T 1003H Comparative Orality and Literacy
C&T 1006H Media, Mind, and Society I
C&T 1008H Media, Mind, and Society II
C&T 1009H New Media and Policy
C&T 1100H Special Topics in Communication and Culture

Students interested in pursuing studies in the impact of communication media on humans and their environment should consult the Director of the program for a list of courses available in cognate departments.

Graduate Faculty

Full Members
Caidi, Nadia - PhD
Cherry, Joan - BSc, MLS, PhD
Choo, Chun Wei - BA, MSc, PhD
Clement, Andrew - BSc, MSc, PhD
De Kerckhove, Derrick - BA, MA, PhD
Dilevko, Juris - MLIS, MA, PhD, PhD
Duff, Wendy - BA, BA, MLS, PhD
Howarth, Lynne - BA, MLS, PhD
MacNeil, Heather - PhD
Mai, Jens-Erik - PhD (Director of Graduate Studies)
Phillips, David - PhD
Ross, Seamus - MA, PhD (Dean)
Smith, Brian Cantwell - BS, MS, PhD
Teather, Lynne - BA, MA, PhD
Yu, Eric - BSc, MMath, PhD

Members Emeriti
Beghtol, Clare - BA, MLS, PhD
Craig, Barbara - AM, PhD
Fleming, E Patricia - BA, BLS, MLS
Williamson, Nancy - BA, BLS, MLS

Associate Members
Alston, Sandra - BA, MLS
Bayne, Jennifer - MLS
Brower, Matthew - PhD
Carter, Jennifer - PhD
Cox, Joseph - BA, MLS
Fantin, Loren - MLIS
Galey, Alan - PhD
Hartel, Jenna - PhD
Hockema, Stephen - PhD
Katz, Helen - MLS
Kingsland, David - BA
Landon, Richard - BA, BLS
Lyons, Kelly - BSc, MSc, PhD
McCaffrey, Michael - MLS
Meindl, Patricia - BSc, MSc, MLS
Meszaros, Cheryl - PhD
Moir, Michael - MA
Newman, Wendy - MLS
Ratto, Matthew - PhD
Shachak, Aviv - DPhil
Stanbridge, Alan - BSc, AM, DA
Stevenson, Siobhan - PhD
Italian Studies

Faculty Affiliation
Arts and Science

Degree Programs Offered
Italian Studies – MA, PhD
- Field (MA only): Italian Literature
- Fields (PhD only):
  - Middle Ages and Renaissance
  - 17th and 18th Centuries
  - 19th and 20th Centuries

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Book History and Print Culture
   - Italian Studies, MA, PhD
2. Editing Medieval Texts
   - Italian Studies, PhD
3. Sexual Diversity Studies
   - Italian Studies, PhD

Overview
The Master of Arts program offers advanced education in Italian literature and provides training in research techniques.

The Doctor of Philosophy 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 poised 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.

Contact and Address
Web: www.utoronto.ca/italian
E-mail: italian.studies@utoronto.ca
Telephone: (416) 926-2345
Fax: (416) 926-7107

Degree Programs
Italian Studies

Master of Arts

Minimum Admission Requirements
- Applicants are accepted under the general regulations provided that they also satisfy the department's requirements stated below.
- Successful completion of 7.0 undergraduate full-course equivalents (FCE) in Italian, including the following: 3.0 FCE in Italian literature (students must have at least 0.5 FCE in each of 3 out of four different periods: medieval, Renaissance, 17th-18th centuries, modern) 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.
- 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
- Successful completion of ITA 1000H Methodologies for the Teaching and Study of Italian and 4.0 additional graduate full-course equivalents (FCE).
- A student's program of study must be approved by the department.
- Program is normally completed in one year.

Doctor of Philosophy

Minimum Admission Requirements
- Applicants are admitted via one of two routes:
  - Successful completion of the University of Toronto MA or its equivalent with an overall average of at least A- in courses.
  - 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.
- A personal statement of intent.

Note: Applicants with a degree equivalent to a PhD in Italian Studies (e.g., an Italian dottorato di ricerca) cannot be accepted into the PhD program.

Program Requirements
- Students entering with a MA degree will normally complete 4.0 graduate full-course equivalents (FCE) for a total of 8.0 FCE, including those taken in the MA
Degrees Programs by Graduate Unit

With the department's approval, students may choose one graduate course outside the department in an area cognate with the student's area of specialization. Students must also complete the 0.5 FCE ITA 1000H *Methodologies for the Teaching and Study of Italian*; 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 of one other language approved by the department.

- Students entering with a *BA degree* will normally complete 4.0 FCE in addition to the PhD requirements for a total of 8.0 FCE plus the required 0.5 FCE ITA 1000H.
- 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 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.

**Course List**

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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<tbody>
<tr>
<td>ITA 1000H</td>
<td>Methodologies for the Teaching and Study of Italian (Credit/No Credit)</td>
</tr>
<tr>
<td>ITA 1001Y</td>
<td>Colloquia and Professional Development (Credit/No Credit)</td>
</tr>
<tr>
<td>ITA 1025H</td>
<td>Old Italian</td>
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<tr>
<td>ITA 1026H</td>
<td>Italian Dialectology</td>
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<tr>
<td>ITA 1030H</td>
<td>Italian Lexicography. History and Methodologies</td>
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<tr>
<td>ITA 1110H</td>
<td>History of the Italian Language</td>
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<tr>
<td>ITA 1165H</td>
<td>Introduction to Italian Philology</td>
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<tr>
<td>ITA 1170H</td>
<td>Textual Criticism and the Editing of Early Italian Texts</td>
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<tr>
<td>ITA 1177H</td>
<td>The Italian Questione della Lingua</td>
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<tr>
<td>ITA 1200H</td>
<td>Dante</td>
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<td>ITA 1203H</td>
<td>Boccaccio</td>
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<td>ITA 1330H</td>
<td>Petrarch and Petrarchism</td>
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<td>ITA 1455H</td>
<td>Women Writers in Italy</td>
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<td>ITA 1520H</td>
<td>Renaissance Humanism</td>
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<tr>
<td>ITA 1525H</td>
<td>Renaissance Dialogue</td>
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<tr>
<td>ITA 1530H</td>
<td>Machiavelli</td>
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<tr>
<td>ITA 1535H</td>
<td>Topics in Italian Literature</td>
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<tr>
<td>ITA 1540H</td>
<td>Renaissance Italian Theatre</td>
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<tr>
<td>ITA 1550H</td>
<td>Sixteenth-Century Florence</td>
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<tr>
<td>ITA 1565H</td>
<td>Tasso</td>
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<tr>
<td>ITA 1591H</td>
<td>Baroque Poetics and Poetry</td>
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<tr>
<td>ITA 1592H</td>
<td>Baroque Poetry and Neobaroque Poetics</td>
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<tr>
<td>ITA 1597H</td>
<td>The Commedia dell’Arte</td>
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<tr>
<td>ITA 1601H</td>
<td>Vico</td>
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<tr>
<td>ITA 1605H</td>
<td>Theories of the Stage and Dramatic Criticism</td>
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<tr>
<td>ITA 1610H</td>
<td>Seventeenth- and Eighteenth-Century Theatre</td>
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<tr>
<td>ITA 1645H</td>
<td>Post-Tridentine Religious Drama</td>
</tr>
<tr>
<td>ITA 1650H</td>
<td>Neoclassical and Pre-Romantic Literary Culture</td>
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<tr>
<td>ITA 1661H</td>
<td>Topics in Nineteenth-Century Italian Literature</td>
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<tr>
<td>ITA 1705H</td>
<td>Pirandello</td>
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<tr>
<td>ITA 1710H</td>
<td>Aspects of Modern Italian Poetry</td>
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<tr>
<td>ITA 1723H</td>
<td>Trends in the Italian Novel 1900-1960</td>
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<tr>
<td>ITA 1728H</td>
<td>New Trends in the Italian Novel From 1957 to the Present</td>
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<tr>
<td>ITA 1729H</td>
<td>Contemporary Literary Criticism in Italy</td>
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<tr>
<td>ITA 1730Y</td>
<td>Aspects of Semiotic Theory and Practice in Italy</td>
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<tr>
<td>ITA 1735H</td>
<td>Topics in Italian Studies I</td>
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<tr>
<td>ITA 1736H</td>
<td>Topics in Italian Studies II</td>
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<tr>
<td>ITA 1745H</td>
<td>Writing the Twenty-first Century: Contemporary Italian Fiction</td>
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<tr>
<td>ITA 1755H</td>
<td>Italian Modernism</td>
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<tr>
<td>ITA 1760H</td>
<td>From Futurism to Novecentismo: The Rise and Fall of the Italian Avant-Garde</td>
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<tr>
<td>ITA 1810H</td>
<td>Studies in Italian Literature and Film</td>
</tr>
<tr>
<td>ITA 1815H</td>
<td>Issues in Italian Film Historiography</td>
</tr>
<tr>
<td>JIC 5000H</td>
<td>Narrativity and Intertextuality in Italian Fiction</td>
</tr>
<tr>
<td>JMI 1951H</td>
<td>Italian Musical Theatre of the Baroque and Classic Periods</td>
</tr>
<tr>
<td>JRL 1100Y</td>
<td>Introduction to Romance Philology</td>
</tr>
<tr>
<td>MST 3162H</td>
<td>Boccaccio and Chaucer</td>
</tr>
</tbody>
</table>

**Graduate Faculty**

**Full Members**

- Bancheri, Salvatore - BA, MA, PhD (*Coordinator of Graduate Studies*)
- Capozzi, Rocco - BA, MA, PhD
- Eisenbichler, Konrad - BA, MA, PhD
- Guardiani, Francesco - MA, PhD
- Lettieri, Michael - BA, MA, PhD
- Pietropaolo, Domenico - BSc, MA, PhD (*Chair & Graduate Chair*)
- Pugliese, Olga - BA, MA, PhD
- Somigli, Luca - PhD (*Acting Chair & Acting Graduate Chair - July 1, 2009 to December 31, 2009*)

**Members Emeriti**

- Franceschetti, Antonio - LITTD, PhD

**Associate Members**

- Pierro, Franco - BA, MA, PhD
Laboratory Medicine and Pathobiology

Faculty Affiliation
Medicine

Degree Programs Offered
Laboratory Medicine and Pathobiology – MSc, PhD

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

1. Biomedical Engineering
   • Laboratory Medicine and Pathobiology, MSc, PhD
2. Biomedical Toxicology
   • Laboratory Medicine and Pathobiology, MSc, PhD
3. Cardiovascular Sciences
   • Laboratory Medicine and Pathobiology, MSc, PhD
4. Developmental Biology
   • Laboratory Medicine and Pathobiology, PhD
5. Genome Biology and Bioinformatics
   • Laboratory Medicine and Pathobiology, PhD
6. Neuroscience
   • Laboratory Medicine and Pathobiology, MSc, PhD

Overview
The graduate program in Laboratory Medicine and Pathobiology provides a curriculum of courses and a broad-based multidisciplinary approach to research in mechanisms of human disease leading to Master of Science and Doctor of Philosophy degrees. The program emphasizes:

1. Bone and Matrix Pathobiology
2. Cancer
3. Vascular and Cardiovascular Pathobiology
4. Immunopathology, Lymphatics and Transplantation
5. Neuropathobiology and Endocrine Disorders
6. Microbiology and Infectious Disease

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 Web site www.lmp.facmed.utoronto.ca.

Contact and Address
Admission:
Web: www.lmp.facmed.utoronto.ca
Email: r.ponda@utoronto.ca
Telephone: (416) 978-2550
Fax: (416) 978-7361

Program:
Web: www.lmp.facmed.utoronto.ca
Email: f.dharas@utoronto.ca
Telephone: (416) 978-2663
Fax: (416) 978-7361

Graduate Department of Laboratory Medicine and Pathobiology
100 College Street
Banting Institute
University of Toronto
Toronto, Ontario M5G 1L5
Canada

Degree Programs
Laboratory Medicine and Pathobiology

Master of Science

Minimum Admission Requirements
• Applicants must have completed, or be about to complete, one of the following:
  o Pathobiology Specialist Program
  o Four-year honours BSc in Life Sciences
  o Professional degree (e.g., M.D., D.D.S., D.V.M., 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.
  Departmental appraisal forms must be used.
• Detailed curriculum vitae.
• 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 and an interview with a member of the departmental graduate faculty.

- 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

- Students must be on campus and participating for the duration of their registration in the program.
- Students who have not previously completed LMP 1404H Molecular and Cellular Mechanisms of Disease, or an approved equivalent, will be required to take this course in the first year of their program. Students exempted from LMP 1404H will take a departmental half-course as a substitute. The student's advisory committee may recommend additional courses.
- Students must enrol and participate in a credit/no credit course, LMP 1001Y Graduate Seminars in Laboratory Medicine and Pathobiology, which must be taken throughout the program.
- Students are required to attend the departmental guest lecture series, Seminars in Molecular Pathobiology, that immediately follows the student seminar course LMP1001Y.
- Completion of a thesis under the direction of the student's supervisor, assisted by the advisory committee.
- The duration of the MSc program is usually 18 months. Within 12 to 18 months of entry, students will be advised by their committee to do one of the following:
  - write and orally defend a thesis on research completed.
  - transfer to the PhD program, or
  - withdraw from the MSc program.
- The research content of the MSc thesis is expected to generate the equivalent of one paper published in a peer-reviewed scientific journal.

Doctor of Philosophy

Minimum Admission Requirements

- Two routes of entry are available:
  - Track A - Direct entry is available for highly qualified BSc graduates having completed the Pathobiology Specialist Program or a four-year undergraduate program in the life sciences with a minimum A average in the third and fourth years and relevant research experience. These students are encouraged to apply directly to the PhD program.
  - Track B - MSc graduates and applicants with a MD, DDS, DVM (or equivalent) degree are eligible for the PhD program. An A- average or higher is required in graduate courses or in a four-year BSc program if there were no course requirements in the MSc program.

- 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. Departmental appraisal forms must be used. Normally, one of the referees should be the applicant's research supervisor.
- A detailed curriculum vitae.
- Statement of intent (approximately 250 words).
- Applicants are selected by the Departmental Admissions Committee on the basis of academic excellence and successful performance at an interview with a member of the departmental graduate faculty. 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.
- Excellent students with high academic standing (normally 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. Transfer to the PhD program is based on the student's performance at an assessment examination, which is held 12 to 18 months after the start of the MSc program. The student's supervisor will schedule the assessment examination. The examining committee consists of at least six members of the graduate faculty:
  - the Graduate Coordinator (or a representative from the graduate faculty of the Department) who chairs the examination committee,
  - the student's advisory committee, and
  - two other graduate faculty members, one of whom is a member from another graduate department.
- 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

- Students must be on campus and participating for the duration of their registration in the program.
- MSc graduates normally complete their PhD programs within four years of registration in the program. Direct entry students and PhD transfer students are expected to complete their PhD programs within five years.
- Students who have not previously completed LMP 1404H Molecular and Cellular Mechanisms of Disease, or an approved equivalent, are required to take this course in the first year of their PhD program. The student's advisory committee may recommend additional courses. Students exempted from LMP 1404H take a departmental half-course as a substitute.
- All students are required to take three half-course equivalents plus an ongoing credit/no credit seminar course, LMP 1001Y. These courses must include at least one half-course in Laboratory Medicine and Pathobiology. Students having completed the under-
graduate Pathobiology Specialist Program (or equivalent) are required to take two half-courses in addition to the departmental core course (LMP 1404H) and seminar course (LMP 1001Y). Course work should be completed in the first two years of the program, the continuing seminar course excepted. The latter half of the program is focused on research.

- Students who take additional graduate courses during the MSc program at the University of Toronto and who continue their graduate studies in the PhD program may receive a transfer credit for MSc courses toward doctoral course requirements. Credit for courses from universities other than the University of Toronto must be approved by the Graduate Coordinator; certain restrictions may apply.

- Students are required to attend the departmental guest lecture series, Seminars in Molecular Pathobiology, that immediately follows the student seminar course LMP 1001Y.

- PhD students are normally expected to present at least one graduate research seminar in LMP 1001Y prior to defending their thesis.

- Prior to the start of the third year of the PhD program, the advisory committee may recommend that a PhD student transfer to the MSc program; the student may also request the transfer.

- The PhD thesis 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.

### Course List

Not all courses are offered every year. Please check the departmental Web site, www.lmp.facmed.utoronto.ca, for course availability.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP 1001Y</td>
<td>Graduate Seminars in Laboratory Medicine and Pathobiology (Credit/No Credit) (Mandatory for all MSc and PhD students in the Department of Laboratory Medicine and Pathobiology)</td>
</tr>
<tr>
<td>LMP 1005Y</td>
<td>General and Special Pathology (For Oral Pathology Residents only)</td>
</tr>
<tr>
<td>LMP 1006H</td>
<td>Biological Electron Microscopy</td>
</tr>
<tr>
<td>LMP 1012H</td>
<td>Seminars on Pathology (Open to students in Biomedical Communications only)</td>
</tr>
<tr>
<td>LMP 1013H</td>
<td>Neoplasia</td>
</tr>
<tr>
<td>LMP 1015H</td>
<td>Vascular Pathobiology</td>
</tr>
<tr>
<td>LMP 1016H</td>
<td>The Pathology of Connective Tissue</td>
</tr>
<tr>
<td>LMP 1018H</td>
<td>Molecular Biology and Applications to Human Disease</td>
</tr>
<tr>
<td>LMP 1019H</td>
<td>Research Techniques in Molecular Biology and Pathobiology</td>
</tr>
<tr>
<td>LMP 1020H</td>
<td>Inflammation, Immunity, and Immunopathology</td>
</tr>
<tr>
<td>LMP 1401Y</td>
<td>Clinical Biochemistry (For Residents and Diploma students only)</td>
</tr>
<tr>
<td>LMP 1404H</td>
<td>Molecular and Cellular Mechanisms of Disease (Mandatory for all MSc and PhD students in the Department of Laboratory Medicine and Pathobiology)</td>
</tr>
<tr>
<td>LMP 1407H</td>
<td>Introductory Clinical Epidemiology and Applied Biostatistics</td>
</tr>
<tr>
<td>LMP 1503H</td>
<td>Signal Transduction Pathways in Normal and Diseased Tissues</td>
</tr>
<tr>
<td>LMP 1504H</td>
<td>Cell and Molecular Biology of Cardiovascular Diseases</td>
</tr>
<tr>
<td>LMP 1505H</td>
<td>Analytical Clinical Biochemistry</td>
</tr>
<tr>
<td>LMP 1510H</td>
<td>Molecular Biological Aspects of Analytical Biochemistry: Molecular Biology Techniques</td>
</tr>
<tr>
<td>LMP 1515H</td>
<td>Cell Death Pathways in Development, Tissue Homeostasis and Pathobiology</td>
</tr>
<tr>
<td>LMP 1520H</td>
<td>Translational Research in Pathobiology</td>
</tr>
<tr>
<td>LMP 2115H</td>
<td>Selected Topics in Medical Microbiology</td>
</tr>
<tr>
<td>RST 9999Y</td>
<td>Research Project</td>
</tr>
</tbody>
</table>

### Graduate Faculty

#### Full Members

- Abdelhaleem, Mohamed - MSc, PhD
- Adeli, Khosrow - DIPCHEM, MSc, PhD
- Alman, Benjamin - BSc, MD
- Andrulis, Irene - BA, PhD
- Asa, Sylvia - MD
- Aubert, Isabelle - BSc, PhD
- Baines, Andrew - MD, PhD
- Bapat, Bharati - BSc, MSc, PhD
- Barber, Dwayne - BSc, PhD
- Bast, Darrin - BSc, PhD
- Bendec, Michelle - BSc, PhD
- Bergeron, Catherine - MD
- Boggs, Joan - MSc, PhD
- Bognar, Andrew - BSc, PhD
- Brown, Martha - BSc, MSc, PhD
- Brunton, James - BSc, MD
- Cole, David - BSc, MD, PhD
- Connelly, Philip - BA, PhD
- Courtman, David - BSc, MSc, PhD
- Cutz, Ernest - MD
- Cybulsky, Myron - MD
- De Azavedo, Joyce - BSc, PhD
- Dennis, James - PhD
- Denomne, Gregory - BSc, PhD
- Diamandis, Eleftherios - BSc, MD, PhD
- Dirks, Peter - MD, PhD
- Dittakavi, Sarma - BSc, MSc, PhD
Done, Susan - BA, MA, MBA, BCH, MB, PhD
Drucker, Daniel - MD
Ellen, Richard - DDS
Elsedtzt, Harry - BSc, MSc, PhD (Coordinator of Graduate Studies)
Gallinger, Steven - MSc, MD
Girardin, Stephen - BSc, PhD
Gotlieb, Avrum - BSc, MDCM
Grynpas, Marc - MSc, PhD
Gupta, Neeru - BM
Guttman, David - BS, PhD
Hamel, Paul - BSc, PhD
Harrison, Rene - BS, MS, PhD
Hawkins, Cynthia - MD, PhD
Helely, David - MD
Hegele, Richard - MD (Chair and Graduate Chair)
Hinek, Aleksander - MD, PhD
Hough, Margaret - BSc, PhD
Hu, Jim - BSc, PhD
Husain, Mansoor - MB, MD
Irwin, David - BSc, PhD
Jin, Tianru - PhD
Johnston, Miles - BSc, PhD
Joshi-Sukhwal, Sadhna - BSc, MSc, PhD, DSc
Jothy, Serge - MSc, MD, PhD
Kain, Kevin - MD
Kamel-Reid, Suzanne - BA, MA, PhD
Kandel, Rita - MD
Keeley, Frederick - BSc, PhD
Khokha, Rama - BSc, MSc, PhD
Langille, B - BSc, MSc, PhD
Lazarus, Alan - PhD
Levy, Gary - BSc, MD
Lingwood, Clifford - BSc, PhD
Low, Donald - BSc, MD
Lukacs, Gregely - MD, PhD
Mahanur, Don - BA, PhD
Marsden, Philip - MD
Mazzulli, Tony - MD
McGaivin, Martin - BSc, PhD
McKerlie, Colin - DVS, MD
McLaurin, Joanne - BSc, MSc, PhD
Minta, Joe - BSc, MBA, MSc, PhD
Mogridge, Jeremy - BSc, PhD
Nag, Sukriti - MSc, MBBS, MD, PhD
Ni, Heyu - MSc, MD, PhD
Oeh, Michael - BSc, PhD
Opas, Michal - MSc, PhD
Ostrowski, Mario - MD
Ozcelik, Hilmi - BSc, MSc, PhD
Palanijar, Nades - MSc, PhD
Post, Martin - PhD
Pritzkler, Kenneth - BSc, MD
Prud’homme, Gerald - MD
Rand, Margaret - BSc, PhD
Reis, Marciano - MD
Robertson, Janice - BSc, PhD
Rosenblum, Norman - MD
Rowe-Magnus, Dean - BSc, MSc, PhD
Rozakis-Advocado, Maria - BSc, PhD
Rutka, James - BSc, LMCC, MD, PhD
Semple, John Wesley - PhD
Seth, Arun - MS, PhD
Shaw, Patricia - SB, MD
Shek, Pang - BSc, MSc, PhD
Sherman, Philip - MD
Squire, Jeremy - BSc, MSc, PhD
Srinivasan, Rajalakshmi - BSc, MA, PhD
Stewart, Duncan - MDCM
Strauss, Bradley - MD
Taylor, Michael - BSc, DPMED, PhD
Tellier, Raymond - BSc, MSc, MSc, MD
Templeton, Douglas - BSc, MD, PhD
Tenenbaum, Howard - DDS, PhD
Thornor, Paul - MD, DPhil
Tsao, Ming-Sound - BSc, MD
van der Kwast, Theodorus - MD, PhD
Vieth, Reinhold - BSc, MSc, PhD
Wang, Chen - MD, PhD
Ward, Michael - MD
Wilson, Gregory - MSc, MD
Wong, Pui-Yuen - BSc, PhD
Yang, Burton - BSc, MSc, PhD
Yeger, Herman - BSc, MScPhm, PhD
Yousef, George - MSc, MD, PhD
Yucel, Yeni - MD
Zackenasenas, Eland - MD
Zhang, Li - MSc, MD, PhD
Zielenska, Maria - MSc, PhD

Members Emeriti
Marks, Alexander - MD, PhD
Moscarello, Mario - BA, MD, PhD

Associate Members
Chang, Hong - MSc, MD, PhD
Crandall, Ian - BSc, MSc, PhD
Crowcroft, Natasha - BA, MA, MSc, MBBS, PhD
Drews, Steven - BA, BSc, MSc, PhD
Fernandes, Bernard - MBChB
Guyard, Cyril - MSc, PhD
Hwang, David - BSc, MD, PhD
Keating, Sarah - MSc, MD
Kingdom, John - DCH, MB, MD
Leytin, Valery - MSc, PhD, DSc
Li, Ren - MSc, MD, PhD
Melano, Roberto - MSc, PhD
Ng, Dominic - MD
Pollai, Dylan - BSc, MD, PhD
Pollanen, Michael - BSc, MD, PhD
Riddell, Robert - LMCC, LRPC, MBBS
Romashcin, Alexander - DIPCHEM, BSc, PhD
Schmitt-Usms, Gerold - BSc, MSc, DRRERNAT
Somers, Gino - MBBS, BMDSC, PhD
Tein, Ingrid - MD
Teshima, Ikuko Eileen - PhD
Law

Faculty Affiliation
Law

Degree Programs Offered
Law – LLM, MSL, SJD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Bioethics
   • Law, SJD
2. Women and Gender Studies
   • Law, SJD

Overview
The Faculty of Law offers three graduate programs.

The Master of Laws (LLM) is a one-year degree program that provides students interested in continuing their study of the law beyond their first law degree with an opportunity to pursue a more profound study of specific legal issues. The LLM program can be undertaken with a strong emphasis on a thesis (with minor coursework) or with a strong emphasis on coursework (with a shorter thesis). The thesis-intensive format is for law students who have demonstrated a strong potential for advanced research and writing in a common law system. The course work-intensive format is for law students who wish to specialize in a specific area of law, particularly in one of the Law Faculty's several strengths, or who wish to develop an understanding of North American legal processes and law, or who wish to explore the common law at an advanced level.

The Master of Studies in Law (MSL) is designed for scholars with no prior training in law who wish to acquire a knowledge of law in order to add a legal dimension to scholarship in their own discipline.

The Doctor of Juridical Science (SJD), a thesis degree program which normally takes three years to complete, is for outstanding law students seeking to pursue careers in teaching, policy, and research.

Enquiries should be directed to the Graduate Program Coordinator, Graduate Program, Faculty of Law at the address below.

Contact and Address
Web: www.law.utoronto.ca/graduate/
E-mail: law.graduate@utoronto.ca
Telephone: (416) 978-0213
Fax: (416) 978-2648

Degree Programs
Law

Master of Laws

Minimum Admission Requirements
• Bachelor of Laws or Juris Doctor degree from the University of Toronto or a recognized university, or possess equivalent qualifications, with demonstrated proficiency in the study of law. A minimum B+ average is required.
• 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) with the following minimum scores:
  o paper-based TOEFL: 600 and 5 on the TWE
  o computer-based TOEFL: 250 and 5 on the essay rating component
  o internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.

Offers of admission conditional upon successful completion of an English language test will not be offered.

Program Requirements
• A course of studies and a thesis which, combined, are valued at 24 credit hours.
• The course of studies shall involve a minimum of 8 credit hours of course work and a maximum of 20 credit hours of course work.
• The thesis shall involve a minimum of 4 credit hours (in which case the thesis will generally be expected to be between 50 to 60 pages doubled spaced, approximately 15,000 to 18,000 words) and a maximum of 16 credit hours (in which case the thesis will generally be expected to be between 100 to 150 pages doubled spaced, approximately 30,000 to 45,000 words).
• Mandatory graduate seminar, Alternative Approaches to Legal Scholarship.
• All course work and the thesis shall be graded using the SGS grading scale.
• In determining the composition of the course of studies and the weight to be given to the thesis, the Faculty will endeavour to structure a program designed to accommodate an individual student and the subject matter of the thesis. However, such course of studies and the weight of the thesis shall at all times be determined by the Faculty.
The program may be completed on a full-time or part-time basis. In the full-time LLM program, the course work requirements must be completed by May 31 of the academic year of attendance and the thesis must be completed by August 31 of the academic year of attendance. Students must be in attendance for at least two academic sessions (eight months, September to April).

With approval of the Associate Dean, Graduate Studies, Law, the program may be taken on a part-time basis over two years in which case the course work requirements must be completed by May 31 of the second academic year of attendance and the thesis must be completed by August 31 of the second academic year of attendance. Continuation in the second year of the part-time LLM program is subject to the Faculty's determination that the student has made satisfactory progress in the first year of the part-time LLM studies.

Master of Studies in Law

Minimum Admission Requirements
- At least a bachelor's degree and preferably a doctorate, from this or another recognized university, with a demonstrated high level of scholarship in a discipline related to law.
- 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) with the following minimum scores:
  - paper-based TOEFL: 600 and 5 on the TWE
  - computer-based TOEFL: 250 and 5 on the essay rating component
  - internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.

Offers of admission conditional upon successful completion of an English language test will not be offered.

Program Requirements
- The student must pursue a course of studies approved by the Faculty and by the SGS Admissions and Programs Committee. The course of studies will comprise at least 28, and not more than 32, course hours and will include at least 3 of the following subjects: contracts, torts, property, criminal law, constitutional law, and civil procedure.
- The program will also include a research project of an interdisciplinary nature.
- The student must be in full-time attendance for two academic sessions (eight months).

Note: In no circumstance will courses taken in an MSL program be accredited for the JD program.

Doctor of Juridical Science

Minimum Admission Requirements
- Bachelor of Laws or Juris Doctor degree (with a minimum B+ average) from the University of Toronto or a recognized university and a Master of Laws (with a minimum B+ average) from the University of Toronto or a recognized university or possess equivalent qualifications. The Associate Dean, Graduate Studies, 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 Committee is satisfied that the applicant's law record demonstrates excellent potential for independent legal research and writing at an advanced level.
- 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) with the following minimum scores:
  - paper-based TOEFL: 600 and 5 on the TWE
  - computer-based TOEFL: 250 and 5 on the essay rating component
  - internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections.

Offers of admission conditional upon successful completion of an English language test will not be offered.

Program Requirements
- A student must remain in attendance for at least two academic sessions (eight months, September to April).
- Complete the graduate seminar, LAW 245Y
- Alternative Approaches to Legal Scholarship.
- Other course work requirements are optional and shall be determined upon consultation with the supervisor. All course work shall be subject to the approval of the Associate Dean, Graduate Studies, 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. An Individual Area Committee (established by the student and approved by the Associate Dean, Graduate Studies, 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 else consists of 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. Normally, a student will have satisfied the area requirement by the end of the first year of registration.
- 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.
Following completion of the area requirements, a thesis must be prepared which, in the opinion of the Faculty, constitutes a distinct contribution to legal research or scholarship, and the student must pass an 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.

Direct Entry SJD

- A student must be in attendance for at least four academic sessions (two periods of eight months each, September to April).
- Complete at least eight credit hours, including the graduate seminar, LAW 245Y Alternative Approaches to Legal Scholarship.
- All course work shall be subject to the approval of the Associate Dean, Graduate Studies, 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. An Individual Area Committee (established by the student and approved by the Associate Dean, Graduate Studies, 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 else consists of 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 examination based on the written work and the reading list. Normally, a student will have satisfied the area requirement by the end of the first year of registration.
- 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.
- Following completion of the area requirements, a thesis must be prepared which, in the opinion of the Faculty, will constitute a distinct contribution to legal research or scholarship, and the candidate must pass an 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.

Course List

**LAW 245Y** Alternative Approaches to Legal Scholarship

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### Graduate Faculty

**Full Members**

- Benson, Peter - LLB, LLM, PhD
- Brudner, Alan S - BA, MA, PhD
- Brunnee, Jutta - LLM, SJD
- Chapman, Bruce - BA, LLB, PhD
- Choudhry, Sujit - LLB, LLM
- Cook, Rebecca - BA, LLM, MA, MPA, JD, SJD
- Cossman, Brenda - LLB, LLM
- Dewees, Donald - LLB, BSCEE, PhD
- Duff, David Grant - BA, LLB, MEC, LLM, MA
- Duggan, Anthony - BA, LLB, LLM, LLD
- Dyzenhaus, David - BA, LLB, PhD (Associate Dean, Graduate Studies)
- Emon, Anver - LLB, BA, LLM, MA, PhD
- Flood, Colleen - LLB, LLM, SJD
- Iacobucci, Edward - LLB, MPH
- Johnston, Darlene - LLB, BA, LLM
- Knop, Karen - BSc, LLB, LLM, SJD
- Langille, Brian A - LLB, BCL, BA
- Lemmens, Trudo - LLM, DCL
- Macintosh, Jeffrey - BSc, LLB, LLM
- Macklem, Patrick - BA, LLB, LLM
- Macklin, Audrey - BSc, LLB, LLM
- Moran, Mayo - BA, LLB, LLM, SJD (Dean)
- Morgan, Edward - LLB, BA, LLM
- Nedelsky, Jennifer R - BA, MA, PhD
- Phillips, James - LLB, MA, PhD
- Reaume, Denise - BA, LLB, BCL
- Ripstein, Arthur S - BA, PHM, LLM, PhD
- Rittich, Kerry - BAMESIC, LLB, SJD
- Roach, Kent - BA, LLB, LLM
- Rogerson, Carol - BA, LLM, MA, LLM
- Schneiderman, David - BA, LLB, LLM
- Shachar, Ayelet - LLB, BA, LLM, SJD
- Shaffer, Martha - LLB, LLM, MACCT
- Sossin, Lorne - LLB, BA, LLM, MA, PhD, LLD
- Steward, Hamish - BA, LLB, MA, PhD
- Trebilcock, Michael - LLB, LLM
- Valcke, Catherine - BCL, LLB, LLM, SJD
- Waddams, Stephen - BA, LLB, BA, LLM, PhD, SJD
- Weinrib, Ernest - BA, LLB, PhD
- Weinrib, Lorraine - BA, LLB, LLM

**Members Emeriti**

- Dickens, Bernard - LLB, LLM, PhD
- Friedland, Martin - BCom, LLB, PhD

**Associate Members**

- Alarie, Benjamin - LLB, AB, LLM, MA
- Anand, Anita - BA, LLB, MA, LLM
- Austin, Lisa - BA, BSc, LLB, MA
- Drassinower, Abraham - BPhil, LLB, MA, PhD
- Fadel, Mohammad - BA, JD, PhD
- Fernandez, Angela - LLB, BA, BCL, LLM, MA, SJD
- Green, Andrew - LLB, BA, LLM, MA, PhD
- Hirschli, Ran - BA, LLB, MA, MPH, PhD
- Lee, Ian - LLB, BCom, LLM
Moreau, Stephanie Sophia - BPhil, BA, JD, PhD
Regehr, Cheryl - AB, MA, PhD
Stern, Simon - BA, PhD, JD
Linguistics

Faculty Affiliation
Arts and Science

Degree Programs Offered
Linguistics – MA, PhD

Overview
The Department of Linguistics offers Master of Arts and Doctor of Philosophy degree programs in three fields:
1. Theoretical Linguistics
2. Language Variation
3. Psycholinguistics

Contact and Address
Web: www.chass.utoronto.ca/linguistics/
E-mail: lingdept@chass.utoronto.ca
Telephone: (416) 978-4029
Fax: (416) 971-2688

Department of Linguistics
University of Toronto
Sixth Floor, Robarts Library
Toronto, Ontario M5S 3H1
Canada

Degree Programs
Linguistics

Master of Arts

Minimum Admission Requirements
• Applicants with a bachelor's degree, or equivalent, with a minimum B+ average, may be admitted to a one-year or two-year MA program, depending on their background in linguistics. Admission to a one-year program requires a strong background in linguistics with at least courses in introductory phonetics, phonology, morphology, and syntax. Admission to a two-year program is offered to exceptional applicants whose background is limited to these courses.

Program Requirements
• The one-year MA program normally requires 4.0 full-course equivalents (FCE) including courses LIN 1121H, LIN 1131H, LIN 1181H, LIN 1290Y, and JAL 1145H, or their equivalents, if not already taken, plus other requirements as determined by the Department.

Doctor of Philosophy

Minimum Admission Requirements
• University of Toronto MA in linguistics, or its equivalent, with at least an A- average.

Program Requirements
• Students are normally required to complete 3.0 full-course equivalents (FCE) during the first year. Generals papers (LIN 2201H and LIN 2202H) in two areas of concentration (at least one of which must be in an area of linguistic theory) must be completed by the end of the second year.
• During these two years, students are normally required to be on campus full time for a residence period which entails being 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.
• The language requirement as outlined for the MA degree must be satisfied. Additionally, there is one more language requirement. Other requirements are determined in consultation with the graduate coordinator.
• 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.

Course List
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 Web site.

JAL 1145H Introduction to Field Methods
JAL 1155H Language and Gender
JAL 1170H Language Typology
JAL 1171Y Dialectology
JLP 2450H Psycholinguistics
JLP 2451H Language Acquisition
Degree Programs by Graduate Unit

JLP 2452H Language Acquisition and Linguistic Theory
JRL 1100Y Introduction to Romance Philology
LIN 1000Y Introduction to Linguistics
LIN 1005H Quantitative Methods in Linguistics (Credit/No Credit)
LIN 1028H Phonetics
LIN 1029H Sound Patterns in Language
LIN 1031H Morphological Patterns in Language
LIN 1032H Syntactic Patterns
LIN 1041H Introduction to Semantics
LIN 1105H Linguistic Structures
LIN 1106Y Linguistic Structures
LIN 1115H Second Language Acquisition
LIN 1121H Phonological Theory
LIN 1126H Phonetics
LIN 1127H Phonetic Analysis
LIN 1131H Introduction to Syntactic Theory
LIN 1133H Morphology: Morphosyntactic Issues
LIN 1145H Introduction to Semantics
LIN 1149H Semantics
LIN 1151H Urban Dialectology
LIN 1152H Topics in Language Variation and Change
LIN 1156H Language Variation and Change: Theory and Analysis
LIN 1162H Comparative-Historical Linguistics I
LIN 1172H Introduction to Cognitive Linguistics
LIN 1180H History of Linguistic Thought
LIN 1181H Introduction to Analysis and Argumentation
LIN 1182H Language and Mind I
LIN 1221H Advanced Phonology I
LIN 1222H Advanced Phonology II
LIN 1223H Advanced Phonology III
LIN 1224H Advanced Phonology IV
LIN 1226H Advanced Phonetics
LIN 1231H Advanced Syntax I
LIN 1232H Advanced Syntax II
LIN 1233H Advanced Syntax III
LIN 1234H Advanced Syntax IV
LIN 1245H Advanced Semantics I
LIN 1246H Advanced Semantics II
LIN 1250H Topics in Speech Perception
LIN 1254H Sociolinguistic Methods
LIN 1256H Advanced Language Variation and Change
LIN 1270H Language Processing and Linguistic Theory
LIN 1290Y Linguistic Forum
LIN 1321H Research in Phonology
LIN 1331H Research in Syntax
LIN 1502Y Reading Seminar
LIN 1503H Reading Seminar
LIN 1504Y Research Seminar
LIN 1505H Research Seminar
LIN 1507H Individual Readings I
LIN 1509H Individual Readings II
LIN 2201H Generals Paper I
LIN 2202H Generals Paper II

Graduate Faculty

Full Members
Bhatt, Parth - BA, MA, PhD
Binnick, Robert - BA, MA, PhD
Chambers, Craig - BA, MA, MA, PhD
Colantoni, Laura - MA, PhD
Cowper, Elizabeth - BA, AM, PhD
Drescher, Elan - BA, PhD (Chair & Graduate Chair)
Ippolito, Michela - BA, MPH, PhD
Johns, Alana - BA, MA, PhD
Kang, Yoon Jung - BA, PhD
Kochetov, Alexei - BA, MA, PhD
Martin, Philippe - DSc
Massam, Diane - BA, MA, PhD
Nagy, Naomi - BA, PhD
Perez-Leroux, Ana Teresa - MA, PhD
Rice, Keren - BA, MA, PhD
Roberge, Yves - BA, MA, PhD
Smyth, Ronald - BA, MSc, PhD
Tagliamonte, Sali - AB, MA, DPhil (Coordinator of Graduate Studies)

Members Emeriti
Chambers, J - DIPED, BA, MA, PhD
Reich, Peter - BS, MS, PhD
Rogers, Henry - BA, MA, PhD

Associate Members
Cuervo, Maria Cristina - PhD
Gold, Elaine - BA, MA, PhD
Hachimi, Atiqa - BA, MA, PhD
Helms-Park, Rena - BA, MA, AM, DPhil
Narayan, Chandan - AB, MA, PhD
Nikiema, Emmanuel - PhD
Pirvulescu, Mihaela - MA, PhD
Steele, Jeffrey - BA, MA, PhD
Management

Faculty Affiliation
Management

Degree Programs Offered
Management – MBA, Combined BASc/MBA, Combined JD/MBA, PhD
Executive Master of Business Administration – MBA
Omnium Global Executive Master of Business Administration – MBA
Finance - MF

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Asia-Pacific Studies
   • Management, MBA
2. Environmental Studies
   • Management, MBA, PhD
3. Management and Economics
   • Management, PhD

Overview
The Joseph L. Rotman School of Management offers a suite of management programs including the Master of Business Administration, available in two-year and three-year formats; an Executive Master of Business Administration, a one-year format designed for senior managers; the Omnium Global Executive Master of Business Administration, an alternative to the EMBA for executives wanting to participate in an internationally-focussed business program; the Master of Finance, training tomorrow's global finance leaders; and a world-class doctoral program, the Doctor of Philosophy. The PhD program offers specialization in six different fields:
1. accounting
2. finance
3. organizational behaviour and human resource management
4. marketing
5. operations management
6. strategic management
Other areas are available for selection as the minor field in management including international business.

In addition, the Rotman School of Management offers two combined MBA degree programs. The Combined JD/MBA is a four-year program offered by the Faculty of Law and the Rotman School of Management for students who wish to combine graduate training in management with a degree in law. The Combined Jeffrey Skoll BASc/MBA, established by the Faculty of Applied Science and Engineering and the Rotman School of Management, provides a fast track for students to earn their bachelor's degree in engineering and an MBA in six years and eight months.

Contact and Address
Web: www.rotman.utoronto.ca
Telephone: MBA: (416) 978-3499
Executive MBA: (416) 946-3022
Global Executive MBA: (416) 946-3022/ www.omniumgemba.com
PhD: (416) 978-4226

Joseph L. Rotman School of Management
University of Toronto
105 St. George Street
Toronto, Ontario M5S 3E6
Canada

Degree Programs
Management

Master of Business Administration – Two-Year Program

At press time, minimum admission requirements for the Two-Year MBA program were pending final approval.

Minimum Admission Requirements
• Applicants are considered under the general regulations of the School of Graduate Studies.
• Four-year University of Toronto bachelor's degree or equivalent.
• Satisfactory score on the Graduate Management Admissions Test (GMAT) www.mba.com. Test results are valid for five years.
• A minimum of two years of full-time work experience.
• The Two-Year MBA program admits annually in September. Applicants for the Two-Year program are encouraged to apply before January 15 and no later than April 30 (final deadline).

Program Requirements
• Within this 16-month program (two academic years) students must:
  o Complete a set of mandatory first-year courses at the 1000-level. Each course has a weighting of 1, 2 or 3 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).
  o Complete 5.0 elective full-course equivalents (FCE) at the 2000-level (equivalent to ten
2000-level courses). With the permission of the Associate Dean and Executive Director, MBA Programs, students may take up to five 2000-level courses from another graduate unit or participate in a School- or University-approved international exchange program. In all cases, the courses selected are subject to the approval of the Associate Dean and Executive Director, MBA Programs.

- All degree requirements must be completed within six years from the date of first enrolment in the program.

Master of Business Administration – Three-Year Program

Minimum Admission Requirements
- Applicants are considered under the general regulations of the School of Graduate Studies
- Four-year University of Toronto bachelor's degree or equivalent.
- Satisfactory score on the Graduate Management Admissions Test (GMAT) www.mba.com. Test results are valid for five years.
- Preferential consideration given to applicants who demonstrate a minimum of two years of full-time work experience.
- The Three-Year MBA program admits annually in September. Applicants for the Three-Year MBA program should apply by February 1.

Program Requirements
- This program, designed for working professionals, covers the equivalent of two academic years but is delivered over a three-year period.
- There are two sections in the Three-Year Program: Evening section (36 months) and Morning section (32 months).
- Students must:
  - Complete a set of mandatory 1000-level courses. Each course has a weighting of 1, 2 or 3 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).
  - Complete 5.0 full-course equivalents (FCE) at the 2000-level (equivalent to ten 2000-level courses). With the permission of the Associate Dean and Executive Director, MBA Programs, students may take up to five 2000-level courses from another graduate unit or participate in a School- or University-approved international exchange program. In all cases, the courses selected are subject to the approval of the Associate Dean and Executive Director, MBA Programs.
- All requirements for the degree must be completed within six years from the date of first enrolment in the MBA program.

Combined JD (Law)/MBA (Management) Program

Minimum Admission Requirements
- Applicants must be admitted to both the Faculty of Law and the Rotman School of Management. Individual applications are required for both programs and applicants must satisfy the admission requirements of both faculties independently.
- Management admission criteria are the same as those for the two-year MBA program, with the following exception: although work experience is not a requirement, the average MBA student has five years' experience. It is expected that JD/MBA applicants' academic and personal background reflects diversity and life experience.
- Applicants must obtain satisfactory scores in the Law School Admission Test (LSAT) and the Graduate Management Admission Test (GMAT).
- Students who are in the first year of either of the JD or Two-Year Program may apply for admission to the combined JD/MBA Program by meeting the normal application and admission requirements for the other faculty.

Program Requirements
- Within this combined four-year program, students must:
  - register and complete the first year of the JD program with at least a B standing to continue in the program.
  - complete the MBA 1000-level core courses with at least a B+ to be eligible to continue in the program.
  - complete a further 3.0 full-course equivalents (FCE) at the 2000-level (equivalent to six 2000-level courses) from the Rotman School of Management and 45 credits from the Faculty of Law (in addition to the JD requirements to complete a Moot, a Perspective course, and the Extended Writing Requirement).

At the completion of the four-year combined program, the successful student is awarded both the Juris Doctor and the Master of Business Administration degrees which, if taken separately, would require five years of study.
Combined BASc (Engineering)/MBA (Management) Program

Minimum Admission Requirements
- Applicants must apply, meet all the admission requirements for both the BASc and the MBA and be accepted into each program.
- Students in the second or third undergraduate year at the Faculty of Applied Science and Engineering are eligible to apply for the combined BASc/MBA degree program.
- Applicants need a minimum B+ (77%) average in each of the following four sessions: 1W, 2F, 2W, 3F; students with one session slightly below 77% who meet all other entrance parameters should still apply.

Program Requirements
- Within this combined six-year and eight month program, students in:
  - Years 1-4: complete engineering studies before entering MBA studies; participate in the Professional Experience Year (PEY) placement.
  - Year 5: complete a set of mandatory 1000-level MBA courses. Each course has a weighting of 1, 2, or 3 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).
  - Year 6: students must complete nine 2000-level courses (4.5 FCE) and a required MGT 2050H Technology and Management Interface course (0.5 FCE) at the Rotman School of Management. Up to two of the 2000-level management courses may be replaced by 400-level or higher engineering courses from the Faculty of Applied Science and Engineering. Students must also ensure that they complete any additional required electives from the Faculty of Applied Science and Engineering to ensure they have met their BASc degree requirements. Elective requirements vary for each engineering program area; consultation with a Faculty of Applied Science and Engineering counsellor is strongly encouraged.
  - All students are required to complete a Management Experience Year (MEY). Consult the Faculty of Applied Science and Engineering for detailed MEY requirements.

Courses for the MBA
Weighting for MGT 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>0</td>
<td>CR/NCR (Credit/No Credit)</td>
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<tr>
<td>1</td>
<td>one credit hour</td>
</tr>
<tr>
<td>2</td>
<td>two credit hours</td>
</tr>
<tr>
<td>3</td>
<td>three credit hours</td>
</tr>
</tbody>
</table>

The Department should be consulted each session as to course offerings.

1000 Level
- MGT 1103H Business Ethics
- MGT 1210H Managerial Economics
- MGT 1211H Economic Environment of Business
- MGT 1212H Global Managerial Perspective
- MGT 1222H Managerial Accounting
- MGT 1241H Operations Management
- MGT 1261H Managerial Negotiations
- MGT 1262H Leadership
- MGT 1263H Managing People in Organizations
- MGT 1291H Foundations of Integrative Thinking
- MGT 1292H Integrative Thinking Practicum
- MGT 1301H Fundamentals of Strategic Management
- MGT 1320H Financial Accounting
- MGT 1330H Business Finance
- MGT 1350H Managing Customer Value
- MGT 1382H Statistics for Management

2000 Level
- MGT 2001H Research Project (quarter course)
- MGT 2002Y Research Project
- MGT 2003H Research Project
- MGT 2010H Business-Government Relations
- MGT 2011H International Business
- MGT 2012H Entrepreneurship
- MGT 2015H Special Topics in Strategic Management
- MGT 2016H Special Topics in Strategic Management
- MGT 2017H Special Topics in Strategic Management
- MGT 2018H Special Topics in Strategic Management
- MGT 2019H Special Topics in Strategic Management
- MGT 2020H Health Sector Strategy & Organizations
- MGT 2021H Corporate Strategy
- MGT 2022H Competition and Strategy in Creative Industries
- MGT 2023H Strategic Change and Implementation
- MGT 2024H Outsourcing
- MGT 2050H Technology/Management Interface
- MGT 2052H Management Consulting
- MGT 2053H Organizational Strategy
- MGT 2054H Technology Strategy
- MGT 2055H Cooperative Strategy
- MGT 2056H Game Theory and Competitive Strategy
- MGT 2057H Venture Capital
- MGT 2058H Case Analysis and Presentation
- MGT 2080H Special Topics in Strategic Management
- MGT 2081H Special Topics in Strategic Management
- MGT 2082H Special Topics in Strategic Management
- MGT 2083H Special Topics in Strategic Management
- MGT 2084H Special Topics in Strategic Management
- MGT 2115H Special Topics in Business Economics
- MGT 2116H Special Topics in Business Economics
- MGT 2117H Special Topics in Business Economics
- MGT 2118H Special Topics in Business Economics
- MGT 2119H Special Topics in Business Economics
- MGT 2120H Health Policy and Health Care Markets
- MGT 2122H Business and the Regulatory Environment
- MGT 2123H International Business in the World Economy
MGT 2125H Game Theory and Applications for Management
MGT 2126H Real Estate Development
MGT 2127H Economic Environment of International Business
MGT 2128H Real Estate Economics
MGT 2129H Forecasting Models and Econometric Methods
MGT 2140H Special Topics in Business Economics
MGT 2141H Special Topics in Business Economics
MGT 2142H Special Topics in Business Economics
MGT 2202H Planning and Control Systems
MGT 2203H Current Issues in Financial Reporting and Disclosure
MGT 2204H Canadian Tax Practice
MGT 2205H Financial Statement Analysis
MGT 2210H Corporate Bankruptcy and Insolvency
MGT 2215H Special Topics in Business Economics
MGT 2216H Special Topics in Business Economics
MGT 2220H Planning and Control Systems
MGT 2230H Security Analysis and Portfolio Management
MGT 2233H Risk Modelling and Financial Trading Strategies
MGT 2240H Financial Institutions and Capital Markets
MGT 2250H Special Topics in Management Science
MGT 2251H Marketing Strategy
MGT 2251H Global Marketing
MGT 2252H Mass Merchandising
MGT 2253H Strategic Internet Marketing
MGT 2254H Consumer Behaviour
MGT 2255H Integrated Marketing Communication
MGT 2256H Marketing Research
MGT 2257H Marketing Analysis and Decision Making
MGT 2258H Services Marketing
MGT 2259H Marketing High-Tech Products
MGT 2260H Distribution Channel Strategy
MGT 2261H Marketing Financial Services
MGT 2262H Branding
MGT 2263H Pricing
MGT 2264H Healthcare Marketing
MGT 2265H Special Topics in Marketing
MGT 2266H Special Topics in Marketing
MGT 2267H Special Topics in Marketing
MGT 2268H Special Topics in Marketing
MGT 2269H Management of Human Resources
MGT 2270H Industrial Relations
MGT 2271H Managing Talent for Global Operations
MGT 2272H Leadership
MGT 2273H Special Topics in Organizational Behaviour
MGT 2274H Special Topics in Organizational Behaviour
MGT 2275H Special Topics in Organizational Behaviour
MGT 2276H Special Topics in Organizational Behaviour
MGT 2277H Special Topics in Organizational Behaviour
MGT 2278H Special Topics in Organizational Behaviour
MGT 2279H Special Topics in Organizational Behaviour
MGT 2280H Computer Modelling and Simulation
MGT 2281H Learning How to Learn
MGT 2282H Business Law
MGT 2283H Getting It Done
MGT 2284H Not-for-Profit Consulting
MGT 2285H Multidisciplinary Special Topics
MGT 2286H Multidisciplinary Special Topics
MGT 2287H Multidisciplinary Special Topics
MGT 2288H Multidisciplinary Special Topics
MGT 2289H Top Manager's Perspective
MGT 2290H Using History to Make Strategic Choices

Executive Master of Business Administration

Minimum Admission Requirements

- Admission is restricted to applicants with significant professional work or managerial experience.
- Applicants are considered under the general regulations of the School of Graduate Studies and must obtain either a satisfactory score for the Executive MBA Diagnostic Tool (EDT) or the Graduate Management Admission Test (GMAT). For further details, refer to the Web site or contact the program office.
- Please note special program fees apply for this program.

Program Requirements

- Within this 13-month program:
  - Students complete 23 courses with an accumulated credit weighting of 11.25.
  - One or more of the course(s) may be substituted by course(s) offered in the regular MBA program at the discretion of the Academic Director.
  - The Executive MBA is offered on Fridays and Saturdays every other week, plus four week-long residential modules and study periods.
Courses for the EMBA

The Department should be consulted each session regarding course offerings.

First Session
MGT 5001H Strategy 1
MGT 5003H Personal Leadership 1
MGT 5005H The Business Environment 1
MGT 5012H Special Topics in Strategic Management
MGT 5101H Economics 1
MGT 5201H Accounting 1
MGT 5301H Finance 1
MGT 5401H Business Operations
MGT 5501H Marketing 1
MGT 5601H Organizational Leadership 1
MGT 5801H Quantitative Reasoning for Management

Second Session
MGT 5002H Strategy 2
MGT 5004H Personal Leadership 2
MGT 5006H The Business Environment 2
MGT 5007H International Business
MGT 5009H Topics in Strategic Management
MGT 5010H Industry Analysis Project
MGT 5011H Capstone Project - The Responsible Leader
MGT 5102H Economics 2
MGT 5202H Accounting 2
MGT 5302H Finance 2
MGT 5502H Marketing 2
MGT 5602H Organizational Leadership 2

Global Executive Master of Business Administration (Omnium)

Minimum Admission Requirements
• Admission is restricted to applicants with significant professional work or managerial experience.
• Applicants are considered under the general regulations of the School of Graduate Studies.
• Applicants must also obtain either a satisfactory score for the Executive MBA Diagnostic Tool (EDT) or the Graduate Management Admission Test (GMAT). For further details, refer to the Web site or contact the program office.
• Please note special program fees apply for this program.

Program Requirements
• Within this 16-month program:
  o Students complete 23 courses with an accumulated credit weighting of 11.25
  o Students complete six international modules consisting of three intensive weeks in each of the five locations: Europe (Switzerland, Hungary); South America (Brazil, Sao Paulo, Rio de Janeiro); China (Hong Kong, Shanghai); India (Hyderabad, Mumbai); and Canada (Toronto). The program starts and ends with a module in Toronto.

Courses for the GEMBA
MGT 5001H Strategy 1: Global Strategic Management 1
MGT 5002H Strategy 2: Corporate Strategy
MGT 5004H Personal Leadership: Corporate Leadership
MGT 5005H The Business Environment 1: Corporate Governance
MGT 5006H The Business Environment 2: Professional Responsibilities
MGT 5007H International Business
MGT 5009H Topics in Strategic Management
MGT 5010H Industry Analysis Project
MGT 5011H Capstone Project - The Responsible Leader: Growth Project
MGT 5012H Special Topics in Strategic Management
MGT 5101H Economics 1: Economics Introduction
MGT 5102H Economics 2: Political Economy
MGT 5201H Accounting 1
MGT 5202H Accounting 2: International Accounting
MGT 5301H Finance 1: Financial Global Markets
MGT 5302H Finance 2: Corporate Finance
MGT 5401H Business Operations: Supply Chain Management
MGT 5501H Marketing 1
MGT 5502H Marketing 2
MGT 5601H Organizational Leadership 1: Global Team Leadership
MGT 5602H Organizational Leadership 2: Negotiation
MGT 5801H Quantitative Reasoning for Managers
MGT 5901H Technology Innovation

Master of Finance

Minimum Admission Requirements
• Applicants are admitted under the general regulations, including a four-year undergraduate degree from the University of Toronto or its equivalent with a mid-B average in the final year of undergraduate or prior graduate education. If an applicant believes that his or her grades are not reflective of academic performance and potential (e.g., due to international differences in university assessment), or if other proof of ability such as very strong standardized test scores exist, the applicant can request special consideration from the admissions committee.
• Satisfactory score on the Graduate Management Admissions Test (GMAT) or GRE (general) examination; students who have passed all three levels of the Charter Financial Analyst (CFA) designation prior to
the application deadline are exempt from the GMAT/GRE requirement.

- At least two years of full-time work experience in finance. In special circumstances, other substantial experiences will be considered in lieu of the work experience in finance, but only when accompanied by demonstrated exceptional academic and professional potential. Generally, applicants are not accepted immediately after completion of their undergraduate education, unless they have significant prior full-time work experience.
- Students who meet all the criteria will be ranked on the basis of grades, standardized graduate test scores, and professional experience by the admissions committee. The top ranked students will then be invited for interviews with Rotman faculty. The admission decision will be based on both submitted materials and interview performance.

Program Requirements

- Within this 20-month program (two academic years) students:
  - Must complete a structured sequence of 14 courses taken over five semesters (including summer). No advanced standing will be granted for previous academic work completed or professional designations earned.
  - May be required to do some pre-program studies during the summer prior to the start of the program, depending on background preparation.
- All degree requirements must be completed within six years of first enrolment in the Master of Finance program.

Courses for the MF

- MGT 4310H Foundations of Finance
- MGT 4311H Corporate Finance and Valuation
- MGT 4312H Derivatives
- MGT 4313H Firms, Deals and the Economy
- MGT 4314H Risk Management and Financial Institutions
- MGT 4315H Investment Banking
- MGT 4316H Financial Reporting and Financial Statement Analysis
- MGT 4317H Analysis of Fixed Income Markets
- MGT 4318H Finance Theory
- MGT 4319H Portfolio Management and Trading Risks
- MGT 4320H Advanced Accounting Topics for Finance
- MGT 4321H Leadership and Decision Making in Finance
- MGT 4322H Applications of Derivatives Products
- MGT 4323H Investments

Doctor of Philosophy

Minimum Admission Requirements

- Applicants are admitted under the general regulations.
- Some depth in the cognate disciplines relevant to the field of specialization 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 course work 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.
  - Proof of English language facility, if applicable.

Program Requirements

- Students spend the first two years on campus, registered as full time students. During this time, they are normally expected to complete course work. The program consists of a major field and two minor fields of study.
- Within this PhD program, students normally:
  - Complete a minimum of 4.0 full-course equivalents (FCE) to satisfy requirements for one major field and two minor fields of study.
  - A minimum of 2.0 FCE comprise the major field. These will normally be taken from 3000-level Management courses, but additional courses from other departments may be required.
  - The two minor fields are usually taken in cognate departments. Each minor field comprises at least 1.0 FCE.
  - Successful completion of the required course MGT 3080H Research Methods in Business.
  - A student is expected to be qualified in the three basic disciplines essential to the study of Management: economics, behavioural science, and quantitative analysis/statistics.
  - Upon completion of the courses in the major and minor fields, the student is expected to pass comprehensive examinations in the major field.
  - A thesis embodying the results of original investigation must be submitted and defended at a final oral examination in accordance with the regulation of the School of Graduate Studies.
Courses for the PhD

The Department should be consulted each session as to course offerings.

Courses normally restricted to PhD students

- MGT 3001H Research Methods in Strategic Management
- MGT 3002H Advanced Topics in Strategy and Organization
- MGT 3003H Advanced Topics in Strategy and Economics
- MGT 3004H Advanced Topics in International Strategy
- MGT 3005H Strategic Management Workshop
- MGT 3020H Financial Accounting: Theory and Empirical Research
- MGT 3021H Managerial Accounting Research Methods
- MGT 3022H Auditing Seminar
- MGT 3023H Topics in Accounting Research
- MGT 3025H Workshop in Accounting
- MGT 3030H Financial Theory I
- MGT 3031H Financial Theory II
- MGT 3032H Empirical Methods in Finance
- MGT 3033H Current Topics in Finance
- MGT 3034H Capital Markets Workshop
- MGT 3041H Seminar in Operations Management
- MGT 3045H Advanced Topics in Operations Management I
- MGT 3046H Advanced Topics in Operations Management II
- MGT 3051H Marketing Theory I: Consumer Behaviour
- MGT 3052H Marketing Theory II: Strategy
- MGT 3053H Behavioural Research Methods in Marketing
- MGT 3054H Current Topics in Consumer Behaviour
- MGT 3055H Econometric Methods in Marketing
- MGT 3056H Current Topics in Marketing Strategy
- MGT 3057H Workshop in Marketing (Credit/No Credit)
- MGT 3058H The Psychology of Judgement and Decision Making
- MGT 3060H Advances in Human Resource Management
- MGT 3062H Methods and Research in Organizational Behaviour and Industrial Relations
- MGT 3063H Advanced Topics in Organization Theory
- MGT 3064H Advanced Topics in Organizational Behaviour
- MGT 3065H New Directions in Organizational Research
- MGT 3080H Research Methods in Business
- MGT 3090H Reading Course in Approved Field
- MGT 3091H Reading Course in Approved Field

Graduate Faculty

Full Members

- Aggarwal, Pankaj - BEC, MBA, MBA, PhD
- Alivazian, Varouj - BS, MA, PhD
- Amburgy, Terry - MA, PhD
- Amernic, Joel - BSc, MBA
- Averbakh, Igor - MSc, PhD
- Baum, Joel - BA, MBA, PhD (Associate Dean, Faculty)
- Berdahl, Jennifer - PhD
- Berman, Oded - BA, PhD
- Booth, Laurence - BSc, MBA, MA, DBA
- Borins, Sandford - BA, PhD
- Brean, Donald - BA, BBA, MBA, MSc, PhD
- Brooks, Leonard - BCOM, MBA
- Callen, Jeffrey - BM, MBA, DPhil
- Corts, Kenneth - BA, MA, PhD
- Cote, Stephane - PhD
- D'Cruz, Joseph - BA, MBA, PhD
- Duan, Jin-Chuan - DBA
- Dyck, Alexander - BA, PhD
- Elitzur, Ramy - BA, MBA, PHM, PhD
- Florida, Richard - BA, PhD
- Golden, Brian - BS, MS, PhD
- Goldreich, David - BS, MS, MBA, PhD
- Gunz, Hugh - DPhil, PhD
- Halpern, Paul - BCOM, MBA, PhD
- Hawkins, Scott - BA, MS, PhD
- Hejazi, Walid - PhD
- Hope, Ole-Kristian - MBA, PhD
- Horstmann, Ignatius - PhD
- Hull, John - BA, MA, MA, PhD
- Hyatt, Douglas - BA, MA, PhD
- Jalland, R. Michael - BA, PhD
- Kan, Raymond - MBA, DPhil
- Kirznner, Eric - BA, MBA
- Krass, Dmitry - MEng, PhD
- Latham, Gary - BA, MS, PhD
- Li, Yue - BSc, MBA, PhD
- Mahrt-Smith, Jan - BSc, PhD
- Martin, Roger - AB, MBA (Dean)
- McCracken, Susan - BComm, DPhil
- McCurdy, Thomas - AB, MEC, DPhil
- McEvily, William - BS, PhD
- McGahan, Anita - BA, MA, MBA, PhD
- Mehta, Nitin - BTech, MS, PhD
- Menzesfricke, Ulrich - MBA, DBA
- Milner, Joseph - BSc, SM, PhD
- Mitchell, Matthew - BS, MA, PhD
- Moldoveanu, Mihnea (Michael) - SM, DBA
- Moorthy, Sridhar - BSc, MBA, MS, DPhil
- Oxley, Joanne - MA, MBA, PhD
- Pauly, Peter - MA, PhD (Vice Dean, Academic)
- Reuber, Rebecca - BA, MSc, PhD
- Richardson, Gordon - BA, MBA, DBA
- Rindisbacher, Marcel - BA, MSc, PhD
- Rotenberg, Wendy - PhD
- Rotundo, Maria - BA, MA, DBA
- Rowley, Timothy - BA, MBA, PhD
- Saks, Alan - BA, MSc, PhD
- Segal, Dan - BA, MBA, PhD
Degree Programs by Graduate Unit

Shi, Mengze - BS, MS, MBA, PhD
Silverman, Brian - AB, MA, DBA
Smieiauskas, Waldemar - BS, MS, PhD
Soberman, David - BSCHE, MBA, PhD
Soman, Dilip - BE, MBA, PhD
Sorenson, Olav Johann - AB, MA, PhD
Stabile, Mark - MA, MPH, PhD
Stark, Andrew - BA, MSc, AM, PhD
Strange, William - PhD
Tombak, Mihkel - BS, MBA, AM, PhD
Trefler, Daniel - BA, MPH, PhD
Verma, Anil - BTech, MBA, DPhil
Wang, Qing (Kevin) - BS, MA, PhD
Wei, Jason - MBA, PhD
Wensley, Anthony - MA, MA, MBA, PhD
White, Alan - BE, MBA, DPhil
Whyte, Glen - LLB, MA, MPH, MBA, PhD
Wong, Moon Hung (Franco) - BA, MA, PhD
Xie, Jia Lin - PhD
Zhang, Ping - BS, MACCT, MA, DBA

Members Emeriti
Bird, Richard - BA, MA, PhD
Evans, Martin - BSc, MSc, MIA, PhD
Fleck, James - BA, DBA
Gordon, Myron - BA, MA, PhD
Kolodny, Harvey - BEng, MBA, PhD
Mitchell, Andrew - BA, PhD
Ondrack, Daniel - BComm, MBA, PhD
Safarian, Albert - BA, PhD
Sawyer, John - BCOM, MA, PhD
Wilson, Thomas - BA, AM, PhD

Associate Members
Afeche, Philipp - BA, MS, PhD
Agrawal, Ajay - BASc, MEng, MBA, PhD
Baron, Opher - BSc, MBA, PhD
Blum, Bernardo Soares - BA, MA, PhD
Buti, Sabrina - BEC, MEC, PhD
Casciaro, Tiziana - BA, MS, PhD
Chen, Feng - PhD
Ching, Andrew Tat Tin - BEC, MA, PhD
Dahlin, Kristina - MS, MS, PhD
Davydenko, Sergei - MA, MSc, PhD
De Franco, Gus - BA, MBA, PhD
De Voe, Sanford - BA, PhD
Doidge, Craig Andrew - BComm, MSc, PhD
Eiling, Esther - BA, MS, PhD
Fleischer, Anne - BA, MBA, PhD
Franco, April - BPhil, MEC, PhD
Frazer, Garth - BE, BM, MPH, MA, PhD
Galasso, Alberto - PhD
Goldfarb, Avi - BA, MA, PhD
Han, Lu - BA, MA, PhD
Kim, Kyeongheui - BA, MBA, PhD
Kramer, Lisa - BBA, PhD
Lederman, Mara - BA, PhD
Leonardelli, Geoffrey - BA, PhD
Liao, Wei-Yi (Scott) - MA, PhD
Lu, Hai - MBA, PhD
Mazar, Nina - MBA, PhD
McCarthy, Julie - BA, MPSY, PhD
Meza, Sergio - BTech, MPH, MBA, PhD
Montes, Samantha - BA, MA, PhD
Oesch, John - BS, MSc, MBA, MEd, PhD
Pomorski, Lukasz - MA, AM, PhD
Simcoe, Timothy - MA, PhD
Tong, Soo Min - BBA, PhD
Trougakos, John Peter - BS, MBA, PhD
Tsai, I-Wen (Claire) - BBA, MBA, PhD
Weber, Mark - AB, MBA, AM, PhD
Wojnicki, Andrea - BCOM, MBA
Xin, Baohua - MEC, PhD
Zhao, Min - BA, MA, PhD
Zhong, Chenbo - BA, MA, PhD
Zweig, David - DPhil
Materials Science and Engineering

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Materials Science and Engineering – MA, MEng, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomedical Engineering
   - Materials Science and Engineering, MA, PhD
2. Environmental Engineering
   - Materials Science and Engineering, MA, MEng, PhD

Overview
The Department of Materials Science and Engineering offers graduate programs leading to the degrees of Master of Applied Science, Master of Engineering, and Doctor of Philosophy. Graduate courses and research opportunities are offered to qualified students in a wide range of subjects.

Typical subjects in extractive and process metallurgy involve a study of the equilibria existing during the reduction of oxides with carbon and metals, properties of iron and steelmaking slags, the fundamental properties of fused salt solutions, fused salt electrolysis of reactive metals, kinetics of high-temperature reactions, mathematical modelling of metallurgical processes, process metallurgy, and hydrometallurgy.

Typical physical metallurgy and materials science subjects deal with the structure and properties of metallic, ceramic, and polymeric materials in such fields as plastic deformation, surface properties, electron microscopy, biomaterials, nuclear materials, metal-matrix composites (MMCs), metallic glasses, corrosion, fatigue, welding and bonding, phase transformations and solidification. These studies are all related to the general problem of understanding structure-property-processing relationships in materials.

Contact and Address
Web: www.mse.utoronto.ca
E-mail: mse@ecf.utoronto.ca
Telephone: (416) 978-3012
Fax: (416) 978-4155

Degree Programs
Materials Science and Engineering

Master of Applied Science

Minimum Admission Requirements
- Students are accepted under the general regulations.
- For students whose primary language is not English, the department requires a TOEFL (Test of English as a Foreign Language) with the following minimum scores. Paper-based TOEFL: minimum score of 580 and 4 on the TWE. Computer-based TOEFL: minimum score of 237 and 4 on the essay rating component. Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements
- The program of study normally includes 2.0 full-course equivalents, including the MA Graduate Research Seminar, the Graduate Ethics Seminar, and a thesis. Normally, the course work selected includes the departmental seminar, which is a half-year course, and three half-courses, one of which is normally taken inside the department.
- The required thesis is based upon research work carried out in the department in the fields of extractive and process metallurgy, physical metallurgy, or materials science. The thesis must be presented at an oral examination.

Master of Engineering

Minimum Admission Requirements
- Students are accepted under the general regulations.
- For students whose primary language is not English, the department requires a TOEFL (Test of English as a Foreign Language) with the following minimum scores. Paper-based TOEFL: minimum score of 580 and 4 on the TWE. Computer-based TOEFL: minimum score of 237 and 4 on the essay rating component. Internet-based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements
- A student enrols in a field of study in consultation with a professor who will act as advisor throughout the student’s program.
For students with adequate undergraduate preparation, the normal program will include 5.0 full-course equivalents (FCE). A project may be substituted for 1.5 FCE. The project must be presented at an oral examination.

Doctor of Philosophy

Minimum Admission Requirements
- Students are normally expected to have completed the master's program before entering the PhD program.
- 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 Materials Science and Engineering Graduate Studies office. A student who is permitted such a transfer must complete only the PhD Graduate Research Seminar Seminar in addition to the four courses completed in the MASc program.
- For students whose primary language is not English, the department requires a TOEFL (Test of English as a Foreign Language) with the following minimum scores. Paper based TOEFL: minimum score of 580 and 4 on the TWE. Computer based TOEFL: minimum score of 237 and 4 on the essay rating component. Internet based TOEFL: minimum score of 93/120 and 22/30 on the writing and speaking sections.

Program Requirements
- The major subject in a program will be extractive and process metallurgy, physical metallurgy, or materials science.
- The program of study normally includes 2.0 full-course equivalents (FCE), including the PhD Graduate Research Seminar Seminar, and a thesis. 0.5 of the 1.5 FCE is normally taken inside the department.
- Within 12 months of initial enrolment, all PhD students must pass a general qualifying examination based on the course material taken within the department and on background knowledge in the student's field of specialization.
- The required thesis is based upon research work carried out in the department in the fields of extractive and process metallurgy, physical metallurgy, or materials science.

Course List
A schedule is available from the Coordinator of Graduate Studies at the beginning of the fall session listing the time and room location for each course offered. 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.

Note: Not all courses are offered every year. Please consult the department for a listing of courses being offered this year.

Materials Science
MSE 550H Advanced Physical Properties of Structural Nanomaterials
MSE 558H Nanotechnology in Alternate Energy Systems
MSE 561H Engineered Ceramics
MSE 3000Y MEng Project
MMS 1000H Graduate Research Seminar MASc
MMS 1013H Growth and Characterization of Semiconductors
MMS 1014H Interfacial Phenomena
MMS 1015H Mechanical Properties of Solids I
MMS 1016H Mechanical Properties of Solids II
MMS 1018H Phase Transformations
MMS 1020H Environmentally Induced Cracking
MMS 1022H Special Topics in Materials Science I
MMS 1023H Special Topics in Materials Science II
MMS 1024H Interface and Nanophase Engineering
MMS 1025H Non-Crystalline Solids
MMS 1026H Analytical Electron Microscopy
MMS 1027H Finite Element Analysis and Design of Metallurgical Systems
MMS 1028H Advanced Materials Science
MMS 1029H Electrochemical Synthesis of Nanomaterials
MMS 2000H Graduate Research Seminar PhD
MMS 2013H Materials and Manufacturing
JTC 1704H Polymeric Process Engineering
JTC 1020H Ceramics
JTC 1331H Biomaterials Science

Metallurgy
MSE 504H Extractive Metallurgy
MSE 3000Y MEng Project
MMS 1000H Graduate Research Seminar MASc
MMS 2000H Graduate Research Seminar PhD
MMS 2007H Iron and Steel Making—selected topics
MMS 2008H High Temperature Metallurgical Fluids
MMS 2014H Non-Ferrous Extraction Metallurgy
MMS 2017H Welding Metallurgy
MMS 2018H Welding Processes and Testing
MMS 2020H Mathematical Modelling in Materials Processing
MMS 2022H Special Topics in Metallurgy I
MMS 2023H Special Topics in Metallurgy II

Courses which may continue over a program. The course is graded when completed.
Graduate Faculty

**Full Members**
Argyropoulos, Stavros - MEng, PhD
Coyle, Thomas - BS, BA, SCD
Erb, Uwe - MSc, PhD
Grynpas, Marc - MSc, PhD
Hibbard, Glenn - BASc, PhD
Kherani, Nazir - BASc, MASc, PhD
Lian, Keryn - BE, MASc, MSc, PhD
Lu, Zheng-Hong - BSc, MSc, PhD
Naguib, Hani - BSc, ME, PhD
Nogami, Jun - BASc, MASc, PhD (Chair & Graduate Chair)
North, Thomas - BSc, MSc, PhD
Perovic, Doug - BASc, MASc, PhD
Ruda, Harry - BSc, PhD
Thorpe, Steven - BASc, MASc, PhD (Coordinator of Graduate Studies)
Utigard, Torstein - MASc, PhD
Wang, Zhirui - BEng, BEng, MASc, PhD

**Members Emeriti**
Aust, Karl - BASc, MASc, PhD
Cox, Brian - BA, MA, PhD
Franklin, Ursula - PhD
Lavers, Douglas - BSc, MASc, PhD
Mclean, Alexander - BSc, PhD
Pilliar, Robert - BASc, PhD
Rutter, John - BASc, MA, PhD
Sommerville, Iain - BSc, PhD

**Associate Members**
Barati Sedeh, Mansoor - BSc, MASc, PhD
Sone, Eli - BSc, MS, PhD
Mathematical Finance

Faculty Affiliation
Arts and Science

Degree Programs Offered
Mathematical Finance – MMF

Overview
Financial engineering is one of the fastest growing areas of applied mathematics. In the Master of Mathematical Finance 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 with employees of the sponsoring firm to experience how financial mathematics impacts the decision-making processes of a financial services organization.

Contacts and Address
E-mail: math.finance@utoronto.ca
Web: www.mmf.utoronto.ca
Telephone: (416) 946-5206
Fax: (416) 946-5205

Mathematical Finance Program
University of Toronto
Suite 219, 720 Spadina Avenue
Toronto, Ontario M5S 2T9
Canada

Degree Programs
Mathematical Finance
Master of Mathematical Finance

Minimum Admission Requirements
• Students are admitted under the general regulations of the School of Graduate Studies.

• Applicants must have a four-year University of Toronto bachelor’s degree, or its equivalent, 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 facility in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with minimum scores as follows:
  o Paper-based TOEFL exam: 580 and 5 on the Test of Written English (TWE)
  o Computer-based TOEFL exam: 237 and 5 on the essay rating component
  o 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 will normally extend over twelve consecutive months during which the student is full-time.
• The program 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 courses listed below.

Course List

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

MMF 1900Y Internship (Credit/No Credit)
MMF 1910H Introduction to Financial Industry (Credit/No Credit)
MMF 1914H Information Technology (Credit/No Credit)
MMF 1915H Introduction of Financial Products (Credit/No Credit)
MMF 1920H Investment and Finance
MMF 1921H Operations Research
MMF 1922H Statistics for Finance I
MMF 1923H Financial Markets and Corporate Policy
MMF 1926H Workshop in Mathematical Finance
MMF 1927H Workshop in Mathematical Finance
MMF 1941H Stochastic Analysis
MMF 1943Y* Communication
MMF 1952Y* Pricing Theory
MMF 2000H Risk Management
MMF 2011H Advanced Stochastic Processes
MMF 2012H Volatility Modelling and Forecasting
MMF 2021H Numerical Methods for Finance
MMF 2025H Risk Management Laboratory

Graduate Faculty

Full Members
Feuerverger, Andrey - BSc, PhD
Jackson, Kenneth - BSc, MSc, PhD
Jaimungal, Sebastian - BS, MS, PhD
Kwon, Roy - BA, MS, MSc, PhD
McCurdy, Thomas - AB, MEC, DPhil
Seco, Luis - PhD (Director)

Associate Members
Kreinin, Alexander - MSc, PhD
Pilling, Jason - BSc, MMF
Pugh, Graham - BA, MA, PhD
Rubisov, Dmitri - ME, PhD
Sandhu, Barindar - BSc
Tuenter, Johan - BSc, MSc, PhD

Courses which may continue over a program. The course is graded when completed.
Mathematics

Faculty Affiliation
Arts and Science

Degree Programs Offered
Mathematics – MSc, PhD

Overview
The Department of Mathematics offers opportunities for research – leading to the Master of Science and Doctor of Philosophy degrees - in the fields of pure mathematics and applied mathematics. Faculty areas of research include, but are not limited to real and complex analysis, ordinary and partial differential equations, harmonic analysis, nonlinear 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 (in cooperation with the Department of Statistics), combinatorics, optimization, control theory, dynamical systems, computer algebra, cryptography, and mathematical finance.

More information about this program and courses may be found in the brochure Graduate Studies in Mathematics at the University of Toronto.

Contact and Address
Web: www.math.toronto.edu/graduate
E-mail: grad-info@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

Degree Programs
Mathematics
Master of Science

Minimum Admission Requirements
• SGS general regulations and evidence of an excellent academic background and mathematical ability.

Program Requirements
• Full-time students are accepted into a 12-month, 16-month, or 24-month program. The program may be completed on a part-time basis.
• Students in the 12-month program are required either (a) to successfully complete 3.0 approved full-course equivalents (FCE) and a supervised research project (MAT 4000Y), or its equivalent, or (b) successfully complete 2.0 approved FCE and submit an acceptable thesis. Two approved half-year courses are considered the equivalent of a full-year course. Two prerequisite courses may, with approval, be substituted for one program course. Students may, with approval, take courses outside the department as part of a coherent program.
• Students who do not have a complete undergraduate background in mathematics may be accepted into a 16-month or 24-month program which includes an approved selection of prerequisite and other courses in addition to the requirements of the 12-month program. This possibility may interest students who have some background in a subject in which mathematics is applied and/or who are interested in industrial applications of mathematics.
• Students who undertake the MSc part-time must, at a minimum, satisfy the requirements of the 12-month program.

Doctor of Philosophy

Minimum Admission Requirements
• Normally a master's degree from a recognized university. However, exceptionally strong BSc students may apply for direct admission to the PhD program. In all cases 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
• Program is normally completed in four years of full-time study.
• At least 6.0 half-courses or 3.0 full-course equivalents (FCE).
• Students must pass a comprehensive examination in basic mathematics before beginning an area of specialization. This examination should be taken as soon as possible, and not later than the beginning of the third session of PhD study. The usual examination covers the three general areas of analysis, algebra, and topology, at the level of the first-year graduate courses offered by the department in these subjects. Students planning to specialize in applied mathematics must take the analysis and/or algebra portion of the comprehensive examination, but may substitute from several areas of applied mathematics for the remaining portions.
• Students must pass a specialist oral examination or
give a seminar presentation in their particular field 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.

Course List
Each year the department offers a selection of
courses chosen from the following list, with the possibility
of further additions. The courses, MAT 1000H, 1001H,
1100H, 1101H, 1300H, 1301H, will be offered each year;
the complete list of courses will be available from the
department in May. 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.

MAT 1000H  Real Analysis I
MAT 1001H  Real Analysis II
MAT 1002H  Complex Analysis
MAT 1003H  Theory of Several Complex Variables
MAT 1004H  Theory of Approximation
MAT 1005H  Fourier Analysis
MAT 1006H  Topics in Real Analysis
MAT 1007H  Topics in Complex Variables
MAT 1008H  Functions of a Complex Variable
MAT 1010H  Functional Analysis
MAT 1011H  Introduction to Linear Operators
MAT 1012H  Real Analysis II
MAT 1013H  Theory of Several Complex Variables II
MAT 1015H  Topics in Operator Theory
MAT 1016Y  Topics in Operator Algebras
MAT 1017H  Introduction to K-theory for Operator
Algebras
MAT 1034H  Topics in Harmonic Analysis
MAT 1035H  C* Algebras
MAT 1037H  Von Neumann Algebras
MAT 1044H  Potential Theory
MAT 1045H  Topics in Ergodic Theory
MAT 1051H  Introduction to Ordinary Differential
Equations
MAT 1052H  Topics in Ordinary Differential Equations
MAT 1060H  Partial Differential Equations I
MAT 1061H  Partial Differential Equations II
MAT 1062H  Topics in Partial Differential Equations I
MAT 1063H  Topics in Partial Differential Equations II
MAT 1075H  Differential Analysis
MAT 1100H  Algebra I
MAT 1101H  Algebra II
MAT 1102H  Topics in the Theory of Groups
MAT 1103H  Topics in Algebra I
MAT 1104H  Topics in Algebra II
MAT 1109H  Classical Groups
MAT 1110H  Algebraic Groups
MAT 1120H  Lie Groups and Lie Algebras I
MAT 1121H  Lie Groups and Lie Algebras II
MAT 1122H  Lie Groups and Representations I
MAT 1124H  Topics in Matrix Theory
MAT 1126H  Lie Groups and Fluid Dynamics
MAT 1155H  Commutative Algebra
MAT 1190H  Algebraic Geometry
MAT 1191H  Topics in Algebraic Geometry
MAT 1194H  Algebraic Curves
MAT 1195H  Elliptic Curves and Cryptography
MAT 1196H  Representation Theory
MAT 1197H  Automorphic Forms and Representation
Theory I
MAT 1198H  Automorphic Forms and Representation
Theory II
MAT 1199H  Automorphic Forms
MAT 1200H  Algebraic Number Theory
MAT 1202H  Analytic Number Theory
MAT 1203H  Computational Aspects of Number Theory
MAT 1210H  Topics in Number Theory
MAT 1299H  Point Set Topology
MAT 1300H  Topology I
MAT 1301H  Topology II
MAT 1302H  Combinatorial Theory
MAT 1303H  Combinatorial Designs
MAT 1309H  Geometrical Inequalities
MAT 1312H  Topics in Geometry
MAT 1313Y  Seminar in Geometry
MAT 1314H  Introduction to Noncommutative Geometry
MAT 1340H  Differential Topology
MAT 1341H  Differentiable Manifolds and Applications
MAT 1342H  Introduction to Differential Geometry
MAT 1343H  Riemannian Manifolds
MAT 1344H  Symplectic Geometry
MAT 1345H  Basic Algebraic Topology
MAT 1346H  Homotopy Theory
MAT 1347H  Topics in Symplectic Geometry and
Topology
MAT 1350H  Topics in Algebraic Topology I
MAT 1351H  Topics in Homotopy Theory
MAT 1352H  Topics in Algebraic Topology II
MAT 1355H  Singularity Theory
MAT 1359H  Moduli Spaces of Flat Connections
MAT 1360H  Complex Manifolds
MAT 1392H  Algebra Seminar
MAT 1399H  Advanced Point Set Topology
MAT 1403H  Model Theory
MAT 1404H  Introduction to Model Theory and Set
Theory
MAT 1430H  Set Theory
MAT 1435H  Infinitary Combinatorics
MAT 1436H  Large Cardinals, Structure Theory of Ideals
and Applications
MAT 1448H  Topics in Set Theoretic Topology
MAT 1449H  Seminar in Foundations
MAT 1450H  Topics in Foundations
MAT 1499H  Teaching Large Mathematics Courses
(Credit/No Credit)

Applied Mathematics
MAT 1500Y  Applied Analysis
MAT 1501H  Equations and Variational Calculus
MAT 1502H  Dynamical Systems and Stochastic Analysis  Bierstone, Edward - BSc, MA, PhD
MAT 1507H  Asymptotic and Perturbation Methods  Binder, Iliya - PhD
MAT 1508H  Techniques of Applied Mathematics  Bland, John - BSc, MSc, PhD
MAT 1520H  Wave Propagation  Blomer, Valentin - PhD
MAT 1525Y  Inverse Problems of X-Ray and Radar Imaging  Bloom, Thomas - BSc, MA, PhD
MAT 1638H  Fluid Mechanics  Buchweitz, Ragnar-Olaf - SCD, DRHAB
MAT 1639Y  Topics in Fluid Mechanics  Burchard, Almut - MS, PhD
MAT 1700H  General Relativity  Choi, Man-Duen - BSc, MSc, PhD
MAT 1705H  Foundations of Classical Mechanics  Collander, James - BA, MS, PhD
MAT 1710H  Group Theory and Quantum Mechanics  Cook, Stephen - BS, AM, PhD
MAT 1711H  Topics in Quantum Mechanics  Del Junco, Andres - BSc, MSc, PhD
MAT 1722H  C* Algebras and Quantum Mechanics  Derzko, Nicholas - BSc, PhD
MAT 1723H  Foundations of Quantum Mechanics  Elliott, George - BSc, MSc, PhD
MAT 1724H  Functional Analysis in Quantum Mechanics  Friedlander, John - BSc, BS, MA, PhD
MAT 1725Y  Scattering Theory  Goldstein, Michael - BA, MMath, SCD, PhD
MAT 1739H  Topics in Mathematical Physics  Graham, Ian - BSc, SCD
MAT 1839H  Optimization and Control  Guatieri, Marco - BSc, DPhil
MAT 1840H  Control Theory  Guth, Lawrence - BS, PhD
MAT 1843H  Mathematics of Pattern Recognition  Hori, Kentaro - PhD
MAT 1844H  Nonlinear Dynamical Systems  Ivrii, Victor - MA, PhD, DSc
MAT 1845H  Dynamical Systems  Jeffrey, Lisa - BA, MA, PhD
MAT 1846H  Topics in Dynamical Systems  Jerrard, Robert - AB, PhD
MAT 1847H  Holomorphic Dynamics  Kamnitzer, Joel - BMATH, PhD
MAT 1855H  Computational Mathematics  Kapovitch, Vitali - BS, PhD
MAT 1856H  Mathematical Finance  Karshon, Yael - PhD
MAT 1880H  Case Studies in Applied Mathematics  Khesin, Boris - MS, PhD
Individual Reading Courses
MAT 1900Y  Readings in Pure Mathematics  Khovanski, Askold - PhD, DSc
MAT 1901H  Readings in Pure Mathematics  Kim, Henry - BSc, PhD
MAT 1902H  Readings in Pure Mathematics  Kodla, Stephen - BA, MA, PhD
MAT 1950Y  Readings in Applied Mathematics  Lorimer, Joseph - BSc, MSc, PhD
MAT 1951H  Readings in Applied Mathematics  Lyubich, Mikhail - MS, PhD
MAT 1952H  Readings in Applied Mathematics  McCann, Robert - BS, PhD
MAT 2000Y  Readings in Theoretical Mathematics  Meinrenken, Eckhard - PhD
MAT 2001H  Readings in Theoretical Mathematics I  Mendelsohn, Eric - BSc, MSc, PhD
MAT 2002H  Readings in Theoretical Mathematics II  Milman, Pierre - MA, PhD
MAT 4000Y+  Supervised Research Project  Murnaghan, Fiona - BSc, MSc, PhD
MSc Project
Graduate Faculty
Full Members
Angel, Omer - PhD
Arkhipov, Sergey - PhD
Arthur, James - BSc, MSc, PhD
Bar-Natan, Dror - BSc, PhD (Coordinator of Graduate Studies)

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Virag, Balint - BA, MA, PhD
Weiss, William - BSc, MSc, PhD
Yampolsky, Michael - DPhil

Members Emeriti
Akcoglu, Mustafa - MSc, PhD
Andrews, David - BSc, MSc, PhD
Barbeau, Edward - BA, MA, PhD
Davis, H Chandler - BS, MA, PhD
Ellers, Erich - DRRERNAT, DRRERNAT
Fraser, Donald AS - BA, MA, PhD
Greiner, Peter - BSc, MA, PhD
Halperin, J Stephen - BSc, MSc, PhD
Haque, Wahidul - MA, MS, PhD
Jurdjevic, Velimir - BS, MS, PhD
Kupka, Ivan - BSc, PhD, PhD
Masson, David - BSc, MSc, PhD
McCool, James - BSc, PhD
Murasugi, Kunio - BSc, DSc
Rooney, Paul - BSc, PhD
Sen, Dipak - MSc, DSc
Sharpe, Richard - BSc, MA, PhD
Sherk, F Arthur - BA, MSc, PhD
Smith, Stuart - BSc, PhD
Mechanical and Industrial Engineering

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Mechanical and Industrial Engineering -
MASc, MEng, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomedical Engineering
   • Mechanical and Industrial Engineering, MASc, PhD
2. Environmental Engineering
   • Mechanical and Industrial Engineering, MASc, MEng, PhD
3. Knowledge Media Design
   • Mechanical and Industrial Engineering, MASc, MEng, 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 applied mechanics, robotics and manufacturing; biomedical engineering; computer aided design and materials engineering; energy studies, thermodynamics and surface science; environmental engineering; fluid sciences; information systems and enterprise engineering; operations research; and human factors/ergonomics.

The Master of Applied Science degree program provides students with an opportunity to pursue research-intensive advanced studies in a particular field of interest.

The Master of Engineering degree program is designed for students preparing for advanced professional activity; it is not a research-oriented degree.

The Doctor of Philosophy degree program is for students anticipating a career in which they will be performing or directing research at the most advanced level.

Contacts and Address
Web: www.mie.utoronto.ca/grad
E-mail: grad.admission@mie.utoronto.ca
Fax: (416) 978-3453

Degree Programs
Mechanical and Industrial Engineering

Master of Applied Science

Minimum Admission Requirements
- Applicants must normally have a minimum average of B+, or equivalent, in each of the final two years of an accredited four-year undergraduate program in engineering or a closely related field.
- Applicants are also assessed on publications, work experience, the school and program to which each previous degree pertains, evidence of exceptional communication skills, references, and the availability of financial resources, space, and suitable supervision.
- When proof of English language facility is required for admission, applicants may take one of a number of tests and present a minimum score.
  1. TOEFL (Test of English as a Foreign Language):
     - Paper-based TOEFL exam: 580 with 4 on the Test of Written English
     - Computer-based TOEFL exam: 237 with 4 on the essay rating component
     - Internet-based TOEFL exam: 93/120 and 22/30 on the writing and speaking sections.
  2. MELAB (Michigan English Language Assessment Battery): score of 85 or better.
  3. IELTS (International English Language Testing System): band 7.0 or better.
  4. COPE (Certificate of Proficiency in English): total score of 4 or better (a least 1 in each component and 2 in the writing component).

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 2.5 full-course equivalents (FCE) and a thesis.
- MASc students are required to participate in the non-credit seminar course JDE 1000H during their first or second session of registration.
Master of Engineering

Minimum Admission Requirements
- Applicants must normally have a minimum average of B+ or equivalent, in each of the final two years of an accredited four-year undergraduate program in engineering or a closely related field.
- Applicants are also assessed on publications, work experience, the school and program to which each previous degree pertains, evidence of exceptional communication skills, references, and the availability of financial resources.
- When proof of English language facility is required for admission, applicants may take one of a number of tests and present a minimum score.
  1 TOEFL (Test of English as a Foreign Language):
    o Paper-based TOEFL exam: 580 with 4 on the Test of Written English
    o Computer-based TOEFL exam: 237 with 4 on the essay rating component
    o Internet-based TOEFL exam: 93/120 and 22/30 on the writing and speaking sections.
  2 MELAB (Michigan English Language Assessment Battery): score of 85 or better.
  3 IELTS (International English Language Testing System): score of 7.0 or better.
  4 COPE (Certificate of Proficiency in English): total score of 4 or better (a least 1 in each component and 2 in the writing component).

Program Requirements
- 5.0 full-course equivalents (FCE) or 3.5 FCE plus a supervised project. A plurality of the courses should be taught by the Department of Mechanical and Industrial Engineering.
- The program may be taken on a full-time or part-time basis; some courses are scheduled during evening hours to accommodate part-time students.

Doctor of Philosophy

Minimum Admission Requirements
- 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 via one of three routes:
  o Master's degree. Appropriate University of Toronto master's degree, or its equivalent from a recognized university, with a minimum B+ average.
  o Direct entry. Exceptionally strong applicants with a University of Toronto bachelor's degree or equivalent and an appropriate background may apply directly to the PhD program. Applicants are advised to consult the Graduate Coordinator before applying to ensure that they possess the appropriate admission requirements for direct entry.
- Transfer. Very strong MASc students may apply to transfer to the PhD program after completing only one year of the MASc program.
- When proof of English language facility is required for admission, applicants may take one of a number of tests and present a minimum score.
  1 TOEFL (Test of English as a Foreign Language):
    o Paper-based TOEFL exam: 580 with 4 on the Test of Written English
    o Computer-based TOEFL exam: 237 with 4 on the essay rating component
    o Internet-based TOEFL exam: 93/120 with 22/30 on the writing and speaking sections.
  2 MELAB (Michigan English Language Assessment Battery): score of 85 or better.
  3 IELTS (International English Language Testing System): score of 7.0 or better.
  4 COPE (Certificate of Proficiency in English): total score of 4 or better (a least 1 in each component and 2 in the writing component).

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 course work:
  o students with a master's degree normally are required to complete 2.5 full-course equivalents (FCE) and a thesis.
  o Direct-entry students admitted with a bachelor's degree are required to complete 4.0 FCE plus a thesis.
  o Transfer students must complete a total of 4.0 FCE plus a thesis.
- Students are required to participate in the non-credit seminar course JDE 1000H during their first or second session of registration.
- Each PhD student must pass a qualifying examination, a seminar presentation, additional annual progress meeting, the departmental PhD examination, and the SGS PhD final oral examination.
- PhD students are required to be on campus full-time unless special permission is obtained for off-campus study.

Course List
See the departmental graduate office for a schedule of available courses.

Robotics, Dynamic Systems and Controls
MIE 1001H Dynamics II
MIE 1002H Dynamics III
MIE 1005H Theory of Vibrations I
MIE 1009H Applied Acoustics
MIE 1043H Control Systems II
MIE 1062H Robot Kinematics and Dynamics
MIE 1063H Introduction to Theoretical Kinematics
MIE 1064H Control Analysis Methods with Applications to Robotics
Degree Programs by Graduate Unit

**Mechanical and Industrial Engineering**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIE 1066H</td>
<td>Robot Mechanics and Control</td>
</tr>
<tr>
<td>MIE 1067H</td>
<td>Automation System Design and Integration</td>
</tr>
<tr>
<td>MIE 1068H</td>
<td>Applied Nonlinear Control</td>
</tr>
<tr>
<td>MIE 1069H</td>
<td>Introduction to Microsystems</td>
</tr>
<tr>
<td>MIE 506H</td>
<td>MEMS Design and Microfabrication</td>
</tr>
<tr>
<td>MIE 1101H</td>
<td>Thermodynamics II</td>
</tr>
<tr>
<td>MIE 1102H</td>
<td>Fuel Cell Kinetics</td>
</tr>
<tr>
<td>MIE 1107H</td>
<td>Statistical Thermodynamics</td>
</tr>
<tr>
<td>MIE 1109H</td>
<td>Surface Phenomena</td>
</tr>
<tr>
<td>MIE 1110H</td>
<td>Nonequilibrium Thermodynamics</td>
</tr>
<tr>
<td>MIE 1111H</td>
<td>Conduction Heat Transfer</td>
</tr>
<tr>
<td>MIE 1112H</td>
<td>Advanced Topics in Conduction Heat Transfer</td>
</tr>
<tr>
<td>MIE 1113H</td>
<td>Radiant Heat Transfer</td>
</tr>
<tr>
<td>MIE 1115H</td>
<td>Heat Transfer with Phase Change</td>
</tr>
<tr>
<td>MIE 1116H</td>
<td>Design and Analysis of Heat Exchangers</td>
</tr>
<tr>
<td>MIE 1118H</td>
<td>Partially Ionized Gases</td>
</tr>
<tr>
<td>MIE 1122H</td>
<td>Combustion Engine Processes</td>
</tr>
<tr>
<td>MIE 1123H</td>
<td>Fundamentals of Combustion</td>
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<tr>
<td>MIE 1124H</td>
<td>Combustion in I. C. Engines</td>
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<tr>
<td>MIE 1125H</td>
<td>Advanced Topics in Combustion</td>
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<tr>
<td>MIE 1126H</td>
<td>Diffusion-Wave Fields: Mathematical Methods and Analytical Case Studies in the Thermal, Electronic and Biomedical Sciences</td>
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<tr>
<td>MIE 1127H</td>
<td>Engineering Applications of Sound, Electromagnetic, Thermal and Photonic Waves</td>
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<tr>
<td>MIE 1128H</td>
<td>Materials for Clean Energy Technologies</td>
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<tr>
<td>MIE 1176H</td>
<td>Optoelectronic Energy Conversion II</td>
</tr>
<tr>
<td>MIE 1178H</td>
<td>Direct Energy Conversion and Corrosion</td>
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<tr>
<td>JEL 1704H</td>
<td>Introduction to Lasers</td>
</tr>
<tr>
<td>MIE 511H</td>
<td>Problems in Heat Transfer</td>
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<tr>
<td>MIE 513H</td>
<td>Combustion and Incineration</td>
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<tr>
<td>MIE 515H</td>
<td>Alternative Energy Systems</td>
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<tr>
<td>MIE 516H</td>
<td>Combustion and Fuels</td>
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<tr>
<td>MIE 517H</td>
<td>Fuel Cell System</td>
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<td>MIE 1201H</td>
<td>Fluid Mechanics III</td>
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<td>MIE 1202H</td>
<td>Fluid Mechanics IV</td>
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<tr>
<td>MIE 1203H</td>
<td>Hydrodynamics</td>
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<tr>
<td>MIE 1206H</td>
<td>Non-Newtonian Fluid Mechanics</td>
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<tr>
<td>MIE 1207H</td>
<td>Structure of Turbulent Flows</td>
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<td>MIE 1209H</td>
<td>Advanced Topics in Turbulent Flows</td>
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<td>MIE 1210H</td>
<td>Computational Fluid Mechanics and Heat Transfer</td>
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<td>MIE 1211H</td>
<td>Advanced Topics in Convection</td>
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<td>MIE 1212H</td>
<td>Convective Heat and Mass Transfer</td>
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<tr>
<td>MIE 1213H</td>
<td>Advanced Topics in Computational Fluid Dynamics</td>
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<tr>
<td>MIE 1220H</td>
<td>Environmental Fluid Dynamics</td>
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<td>MIE 1221H</td>
<td>Advanced Topics in Hydraulics</td>
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<tr>
<td>MIE 1222H</td>
<td>Multiphase Flows</td>
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<tr>
<td>MIE 1231H</td>
<td>Introduction to Microfluidics</td>
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<tr>
<td>MIE 1232H</td>
<td>Microfluidics and Laboratory-on-a-Chip Systems</td>
</tr>
<tr>
<td>MIE 1248H</td>
<td>Hydraulics of Open Channels</td>
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<tr>
<td>MIE 512H</td>
<td>Air Pollution: Its Formation and Control</td>
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<tr>
<td>MIE 514H</td>
<td>Atmospheric Pollution: Environmental Effects and Consequences</td>
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<tr>
<td>MIE 519H</td>
<td>Environmental Fluid Mechanics</td>
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<td>JMA 544H</td>
<td>Air Pollution and Control</td>
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<td>MIE 1301H</td>
<td>Solid Mechanics</td>
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<td>MIE 1302H</td>
<td>Elasticity</td>
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<tr>
<td>MIE 1303H</td>
<td>Fracture Mechanics</td>
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<tr>
<td>MIE 1304H</td>
<td>Fracture and Fatigue Engineering</td>
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<tr>
<td>MIE 1307H</td>
<td>Theory and Application of Elastic Plastic Fracture Mechanics</td>
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<tr>
<td>MIE 1340H</td>
<td>Plasticity and Metalforming</td>
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<td>MIE 1341H</td>
<td>Plasticity I</td>
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<td>MIE 1344H</td>
<td>Theory of Forming Processes</td>
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<tr>
<td>MIE 1346H</td>
<td>Viscoelasticity</td>
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<tr>
<td>MIE 1355H</td>
<td>Ultrasonic Non-Destructive Testing</td>
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<tr>
<td>MIE 1356H</td>
<td>Laser/Thermal Wave Techniques in NDE</td>
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<tr>
<td>MIE 1357H</td>
<td>Laser Biomedical Photoacoustics, Biothermophotonics and Imaging</td>
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<tr>
<td>MIE 1359H</td>
<td>Engineering Cell Biology and Micro-Nanoengineered Platforms</td>
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<tr>
<td>MIE 518H</td>
<td>Fundamentals of Aircraft Design</td>
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<td>MIE 539H</td>
<td>Biomechanics II</td>
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<td>MIE 1402H</td>
<td>Experimental Methods in Human Factors Research</td>
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<td>MIE 1403H</td>
<td>Analytical Methods in Human Factors Research</td>
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<td>MIE 1404H</td>
<td>Human Factors in Information Technology</td>
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<tr>
<td>MIE 1405H</td>
<td>Human Control of Telerobotic Systems</td>
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<td>MIE 1406H</td>
<td>Cognitive Work Analysis</td>
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<tr>
<td>MIE 1407H</td>
<td>Engineering Psychology and Human Performance</td>
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<tr>
<td>MIE 1408H</td>
<td>Theoretical Foundations of Human Factors</td>
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<tr>
<td>MIE 1409H</td>
<td>Design of Ecological Interfaces</td>
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<td>MIE 1410Y</td>
<td>Human Factors Project</td>
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<td>MIE 1411H</td>
<td>Design of Work Places</td>
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<td>MIE 1412H</td>
<td>Human-Automation Interaction</td>
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<td>MIE 1501H</td>
<td>Information Systems I: Data and Knowledge Modelling</td>
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<td>MIE 1502H</td>
<td>Information Technology and Systems: Management Strategies</td>
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<td>JCI 1503H</td>
<td>Advanced Topics in Computing and Information Systems</td>
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<td>MIE 1504H</td>
<td>Management of Technological Change</td>
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<td>MIE 1505H</td>
<td>Enterprise Modelling</td>
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<td>MIE 1506H</td>
<td>Information Systems II: Models of Reasoning</td>
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<td>MIE 1507H</td>
<td>Analysis of Fuzzy Systems</td>
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<tr>
<td>MIE 1508H</td>
<td>Design of Fuzzy Systems</td>
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<tr>
<td>MIE 1509H</td>
<td>Seminar on Approximate Reasoning and Knowledge-Based Systems</td>
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<td>MIE 1510H</td>
<td>Formal Techniques in Ontology Engineering</td>
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<tr>
<td>MIE 1511H</td>
<td>Data Integration Topics in Biosciences</td>
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</table>
Operations Research
MIE 1602H Methods in Linear Programming
MIE 1603H Integer Programming
MIE 1605H Stochastic Processes I: Introduction to Stochastic Processes
MIE 1606H Queueing Theory
MIE 1607H Stochastic Processes II: Modeling and Optimization
MIE 1608H Single Criterion Decision Making
MIE 1609H Multiple Criteria Decision Making
MIE 1610H The Design of Energy Systems
MIE 1611H Planning for Capacity Expansion
MIE 1612H Combinatorics and Graph Theory
MIE 1613H Discrete Event Simulation
MIE 1614H Introduction to Operational Research
MIE 1615H Stochastic Dynamic Programming
MIE 1616H Healthcare Management
MIE 1617H Financial Optimization
MIE 1618H Advanced Operations Research
MIE 1619H Constraint Programming and Local Search
MIE 1620H Linear Programming and Network Flows
MIE 1621H Nonlinear Optimization
MIE 561H Healthcare Systems
MIE 562H Scheduling
MIE 566H Decision Analysis

Design and Manufacturing Engineering
JCI 1321H Wood Engineering
JMZ 1704H Polymer Process Engineering
MIE 1740H Smart Materials and Structures
MIE 1706H Manufacturing of Cellular and Microcellular Polymers
MIE 1712H Manufacturing Processes, Machine Tools, Numerical Control
MIE 1713H Analysis and Design of Joints in Manufactured Products
MIE 1714H Optimal Design of Mechanical Systems
MIE 1715H Quality Control
MIE 1716H Design and Computer-Aided Engineering
MIE 1717H Design for Manufacture and Assembly
MIE 1718H Computer Integrated Manufacturing
MIE 1719H Engineering Design Modelling
MIE 1720H Creativity in Conceptual Design
MIE 1721H Reliability
MIE 1722H Supply Chain Management and Logistics
MIE 1723H Engineering Maintenance Management
MIE 1724H Topics in Estimation and Control of Discrete Product Manufacturing
MIE 1725H Group Technology
MIE 1726H Logistics
MIE 1727H Quality Assurance I
MIE 1728H Advanced Scheduling and Constraint Programming
MIE 1729H Machine Perception and Robot Sensors
MIE 1730H Plant Layout and Material Handling
MIE 1731H Quality Assurance II
MIE 1732H Tribology
MIE 1740H Smart Materials and Structures
MIE 1750H Innovation Management 1
MIE 1751H Innovation Management 2
MIE 1752H Innovation Finance and Economics
MIE 1753H Legal and Regulatory Framework for Innovation
MIE 540H Product Design

Mathematical Modelling and Analysis
MIE 1801H Engineering Analysis III
MIE 1802H Engineering Analysis with Complex Variables
MIE 1804H The Finite Element Method in Mechanical Engineering
MIE 1805H Analysis of Engineering Data
MIE 1806H Introduction to Digital Image Processing and Analysis
MIE 1807H Principles of Measurements
MIE 1808H Applied Dynamic System Modelling and Identification
MIE 1809H Advanced Mechatronics
MIE 1810H Neural Networks and Fuzzy Systems: Introduction, Modelling and Control
MIE 536H Engineering Analysis II

Special Topics
MIE 2002H Readings in Industrial Engineering I (Credit/No Credit)
MIE 2003H Readings in Industrial Engineering II (Credit/No Credit)
MIE 2004H Readings in Mechanical Engineering I (Credit/No Credit)
MIE 2005H Readings in Mechanical Engineering II (Credit/No Credit)

Engineering Management Courses
Contact the MIE Graduate Office regarding APS courses that may be used for credit towards a degree program.

APR 1001H Project Management
APR 1002H Financial Engineering
APR 1003H Professional Education
APR 1004H Human Resources Management
APR 1005H Operations Research for Engineering Management
APR 1088H Entrepreneurship and Business for Engineers
APR 1201H Topics in Engineering and Public Policy
APR 501H Leadership and Leading in Groups and Organizations

Seminar Courses
MIE 1650Y Research Seminars in OR (Credit/No Credit)
MIE 3002H Engineering Teaching and Learning (Credit/No Credit)

Research Project
MIE 8888Y MEng Research Project
Graduate Faculty

Full Members
Aleman, Dionne - BSc, MSc, PhD
Amon, Cristina - BASc, MSc, SCD
Ashgriz, Nasser - BS, ME, DPhil
Balakrishnan, Ravin - PhD
Balcigilou, Ahmet Baris - BS, MS, PhD
Bazylak, Aimy - PhD
Beck, J. Christopher - BSc, MSc, PhD
Ben Amara, Foud - BSE, MSc, MSEE, PhD
Ben Mrad, Ridha - BSc, PhD
Benhabib, Bensiyon - BSc, MSc, PhD
Bussmann, Markus - BASc, MASc, PhD (Coordinator of Graduate Studies)
Carter, Michael - BM, MMath, PhD
Chandra, Sanjeev - PhD
Chignell, Mark - BSc, PhD
Cleghorn, William - BASc, MASc, PhD
Consens, Mariano - BEng, MSc, PhD
Ethier, C Ross - BSc, MMath, SM, PhD
Fox, Mark - BSc, PhD
Goldenberg, Andrei - BSc, MSc, PhD
Gruninger, Michael - BSc, MS, PhD
Guenther, Axel - DiplIng, DE
Jamieson, Gregory - BS, MASc, PhD
Jardine, Andrew - BSc, MSc, PhD
Kesler, Olivera - BSE, SM, SCD
Kwon, Roy - BA, MS, MSc, PhD
Lee, Chi-Guhn - DPhil
Lin, Frank - PhD
Mak, Viliam - MSc, PhD
Mandelis, Andreas - BSc, MA, MSc, PhD
McCahan, Susan - BS, PhD
Meguid, Shaker - BSc, MSc, PhD
Milgram, Paul - BASc, MSc, PhD
Mills, James - BSc, MASc, PhD
Moises, Michael - BA, MBA, PhD
Mostaghimi, Javad - PhD
Naguib, Han - BSc, ME, PhD
Nejat, Goldie - BASc, PhD
Park, Chul - PhD
Shu, Lily - PhD
Simmons, Craig - BSc, MSc, PhD
Sinclair, Anthony - BSc, MSc, PhD
Spelt, Jan - BASc, MASc, ME, PhD
Steinman, David - BASc, MASc, PhD
Sullivan, Pierre - BS, MS, PhD
Sun, Yu - BS, MS, MS, PhD
Thomson, Murray - BSc, PhD
Vicente, Joaquim Jose - BSc, MS, PhD
Wallace, James - BA, BA, PhD
You, Lidan - BS, MS, PhD
Zu, Jean - BEng, PhD (Chair & Graduate Chair)

Members Emeriti
Abdelmessih, Abdo - BME, MS, PhD
Allen, Donald - BSc, BE, MASc, PhD
Baines, William - BSc, MD, PhD
Currie, Iain - BSc, MASc, PhD
Fenton, Robert - DipIng, PhD
Foley, Patrick - MA
Hooper, Frank - DIC, BASc
James, David - BSc, MS, MA, PhD
Keffer, James - BASc, MASc, PhD
Kolodry, Harvey - BEng, MBA, PhD
Neumann, A Wilhelm - BA, DRRERNAT
Paradi, Joseph - BSc, PhD
Posner, Morton - BASc, PhD
Senders, John - AB
Turksen, Ismail - BSc, MSc, PhD
Van De Vegte, John - MASc, PhD
Venter, Ronald - BSc, MEng, PhD
Ward, Charles - BS, PhD

Associate Members
Atalla, Noureddine - BE, ME, PhD
Chau, Tom - PhD
Croft, Elizabeth - BASc, MASc, PhD
Dincer, Ibrahim - BSc, MSc, PhD
Drory, Asher - BA, MBA, MA
Frances, Daniel - BASc, MASc, PhD
Hollands, Justin - PhD
Honarvar, Farhang - BEng, MASc, PhD
Kawall, John - BASc, MASc, PhD
Maev, Roman - PhD
Moreau, Christian - PhD
Paraschivou, Marius - PhD
Pickett, Eric - BASc, MA, PhD
Popovic, Milos - DipIng, PhD
Rogers, John - BSc, MS, PhD
Topaloglou, Thodoros - BASc, MSc, PhD
Zhou, Norman - PhD
Medical Biophysics

Faculty Affiliation
Medicine

Degree Programs Offered
Medical Biophysics – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomolecular Structure
   • Medical Biophysics, PhD
2. Cardiovascular Sciences
   • Medical Biophysics, MSc, PhD
3. Developmental Biology
   • Medical Biophysics, PhD
4. Genome Biology and Bioinformatics
   • Medical Biophysics, PhD
5. Neuroscience
   • Medical Biophysics, MSc, PhD

Overview
The Department of Medical Biophysics, an interdisciplinary department with three streams – Cell and Molecular Biology, Molecular and Structural Biology, and Medical Physics – is located primarily at the Ontario Cancer Institute and the Sunnybrook Health Sciences Centre.

The department offers opportunities for research – leading to the Master of Science and Doctor of Philosophy degrees – in a variety of biological problems; projects which cut across the conventional boundaries of physics, engineering, chemistry, biology, and medicine are encouraged. The department emphasizes basic and applied research related to cancer. Projects include the following areas: tumour biology, radiobiology, membrane function, molecular interactions, gene expression, cell differentiation and growth control, viral and chemical carcinogenesis, cellular and molecular immunology, hemopoiesis, macromolecular structure via x-ray crystallography and NMR spectroscopy, the physics and engineering of diagnostic imaging and radiation therapy, development of imaging and therapy systems using x-rays, ultrasound, nuclear magnetic resonance, light and electron optics.

For detailed information, please visit the departmental Web site.

Contact and Address
Web: medbio.utoronto.ca
E-mail: medbio@uhnres.utoronto.ca
Telephone: (416) 946-2972, 946-2973
Fax: (416) 946-2050

Degree Programs
Medical Biophysics

Master of Science

Minimum Admission Requirements
• SGS general regulations.
• Successful applicants with B.Sc. degrees are enrolled in the MSc program; qualified students can reclassify into the PhD degree program during their second year.
• Applicants with diverse backgrounds are encouraged to apply.
• Applicants holding bachelors degrees from non-Canadian universities are required to provide GRE scores (general and subject) with their application.

Program Requirements
• Students must successfully complete all degree course requirements. Course requirements depend on the subject chosen for study and on the student’s background.
• Successful completion of an oral examination on the thesis topic.
• Program is normally completed in two years.

Doctor of Philosophy

Minimum Admission Requirements
• Applicants are admitted via one of two routes
  o Reclassification from the MSc program.
  o Completion of an MSc degree program in biological, physical, chemical, or medical sciences from a recognized Canadian University.
• Admission to the PhD program is highly selective and attainment of minimum admission requirements does not guarantee acceptance into the PhD program.

Program Requirements
• Because of the broad range of topics available for thesis research and because of the different backgrounds of students admitted, each student, in consultation with his or her supervisor, will plan a program of study that provides the appropriate background for the area of investigation.
All students must complete the required four full-course credits as outlined in the MBP Graduate Student Handbook.

Students who transfer/reclassify into the doctoral program or who have completed a MSc degree in Medical Biophysics will receive credit for all courses taken during their MSc program in Medical Biophysics. Students who completed their MSc degree in a department other than Medical Biophysics may request one full-course credit for that degree. These students must still complete or be formally exempt from the required courses for the Medical Biophysics MSc degree. Exemption from a required course does not reduce the number of courses required; students must substitute another course equivalent in place of the exempted course.

All PhD students are expected to participate in MBP 1015Y Biophysics Seminar Course regardless of whether they previously received credit for it or not.

Except by special arrangements, students are required to be on campus and participating full time until all program requirements are completed.

Course List

MBP 1001Y Advanced Cell Biology (topics change; consult Course Coordinator about current topics)
MBP 1007H Fundamentals in Molecular and Cell Biology I
MBP 1008H Fundamentals in Molecular and Cell Biology II
MBP 1010H Quantitative Biology—Statistical Methods
MBP 1011H Foundations of Bioinformatics (Not currently offered; suggested alternative is JTB 2010H Proteomics and Functional Genomics)
MBP 1015Y Biophysics Seminar
MBP 1018Y Oncology
MBP 1022H Advanced Cell Biology for Physical Scientists
MBP 1023H Clinical Radiation Physics
MBP 1024Y Advanced Medical Imaging
MBP 1026H Clinical Imaging for Physical Scientists
MBP 1028H Optical, Thermal and Radiation Biophysics

Graduate Faculty

Full Members
Archer, Michael - MA, MSc, PhD, DSc
Arrowsmith, Cheryl - BSc, PhD
Attisano, Liliana - BSc, PhD
Aubin, Jane - BSc, PhD
Barber, Dwayne - BSc, PhD (Vice-Chair)
Benchimol, Samuel - BSc, PhD
Ben-David, Yacov - BSc, MSc, PhD
Bernstein, Neil - MD
Bernstein, Alan - MD
Bjerknes, Matthew - BSc, MSc, PhD
Boyd, Norman - MD
Bristow, Robert Glen - MD, PhD
Bronskill, Michael - BSc, MSc, PhD
Burns, Peter - BSc, BSc, MSc, PhD (Chair & Graduate Chair)
Chakrabartty, Avijit - BSc, MSc, PhD (Coordinator of Graduate Studies)
Cheng, Hazel PI - BSc, MSc, PhD
Cheung, Peter - BSc, MS, PhD
Czarnota, Gregory - MD, PhD
Danska, Jayne - AB, PhD
Done, Susan - BA, MA, MBA, BCH, MB, PhD
Dumont, Daniel - BSc
Edwards, Aled - BSc, PhD
Filmus, Jorge - MSc, PhD
Foster, Stuart - BSc, MSc, PhD
Fraser, Paul - BSc, MSc, PhD
Gallie, Brenda - MD
Gariepy, Jean - BSc, PhD
Graham, Simon - BSc, PhD
Guha, Abhijit - BSc, MSc, MD
Hakem, Razqallah - PhD
Harrington, Lea Anne - BSc, MSc, PhD
Hedley, David - MD
Henkelman, Mark - BSc, MSc, PhD
Hill, Richard - BA, PhD
Hogg, David - BSc, MD
Hudson, Thomas J - MD
Ikura, Mitsuhiko - BSc, PhD
Iscover, Norman - MD, PhD
Jaffray, David - BSc, PhD
Jurisica, Igor - PhD
Kamel-Reid, Suzanne - BA, MA, PhD
Keller, Gordon - BSc, PhD
Kerbel, Robert - BSc, PhD
Khokha, Rama - BSc, MSc, PhD
Kolios, Michael - BSc, MSc, PhD
Letarte, Michelle - BSc, PhD
Llig, Lothar - DiPPHY, PhD (Coordinator of Graduate Studies)
Liu, Fei-Fei - MD
Liu, Geoffrey - MSc, MD
Mak, Tak - BSc, MSc, PhD
Malkin, David - MD
Manoukian, Armen - BSc, PhD
Marsden, Philip - MD
Martel, Anne - BSc, PhD
Mcglade-Dolson, Jane - BSc, PhD
Medin, Jeffrey - BSc, PhD
Messner, Hans - MD, PhD
Minden, Mark - MD, PhD
Minkin, Salomon - BSc, MSc, PhD
Moody, Alan - BA, MA, MBBS
Neel, Benjamin - AB, MD, PhD
Ohashi, Pam - BSc, PhD
Pai, Emil - PhD
Paige, Christopher - BSc, PhD
Penn, Linda - BSc, PhD

Courses which may continue over a program. The course is graded when completed.
Penninger, Josef - MD
Pignol, Jean-Phillipe - MD, PhD
Plewes, Donald - BSc, MSc, PhD
Prive, Gil - BSc, PhD
Puri, Mira - BSc, PhD
Rast, Jonathan - MS, PhD
Raught, Brian - BS, MS, PhD
Rawlinson, J Alan - BSc, MSc
Rose, David - BA
Ross, Bernard - Diploma, PhD
Rottapel, Robert - BA, MD
Rowlands, John - BSc, PhD
Schimmer, Aaron - MD, PhD
Schuh, Andre - MD
Sherar, Michael - BA, PhD
Siewerdsen, Jeffrey - BA, MS, PhD
Sled, John - BASc, MS, PhD
Spaner, David - PhD
Squire, Jeremy - BSc, MSc, PhD
Stambolic, Vuk - BSc, MSc, PhD
Stanisz, Greg - PhD
Strother, Stephen - BSc, MS, PhD
Tillier, Elizabeth - BSc, MS, PhD
Tritchler, David - BA, MS
Tsao, Ming-Sound - BSc, MD
Van Der Kooy, Derek - BSc, MA, PhD
Vitkin, Alex - BASc, MSc, PhD
Wells, Richard - MD, PhD
Whelan, William - BSc, MS, PhD
Wilson, Brian - BSc, PhD
Wong, Chong Shun - MD
Wood, Michael - BSc, PhD
Woodgett, James - BSc, PhD
Wright, Graham - BSc, MSc, PhD
Yaffe, Martin - BSc, MSc, PhD
Yeh, Wen-Chen - MB
Zackenhauss, Eldad - PhD
Zheng, Gang - MSc, PhD

Members Emeriti
Axelrad, Arthur - BSc, MD, PhD
Bruce, Robert - BSc, LMCC, MSc, MD, PhD
Cunningham, Alastair - PhD
Hunt, Prof. Emeritus, John - BSc, MSc, PhD
McCulloch, Ernest - MD
Miller, Richard - BSc, MSc, PhD
Ottensmeyer, Peter - BASc, MA, PhD
Phillips, Robert - BA, MSc, PhD
Rauth, A Michael - BSc, PhD
Sil, James - BA, MA, PhD
Whitmore, Gordon - PhD

Associate Members
Adamson, Susan - BSc, MSc, MD, PhD
Ailles, Laurie - PhD
Brock, Kristy - PhD
Caldwell, Curtis - BSc, MSc, PhD
Chen, Josette - BSc, MA, PhD
Chopra, Rajiv - PhD
Cunningham, Charles - BSc, MSc, PhD
Gauthier, Mona L. - BSc, MS, PhD
Medical Science

Faculty Affiliation
Medicine

Degree Programs Offered
Bioethics - MHSc
Biomedical Communications - MScBMC
Medical Radiation Science - MHSc
Medical Science - MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aboriginal Health
   • Medical Science, MSc, PhD
2. Addiction Studies
   • Medical Science, MSc, PhD
3. Aging, Palliative and Supportive Care Across the Life Course
   • Medical Science, MSc, PhD
4. Bioethics
   • Medical Science, MSc, PhD
5. Biomedical Engineering
   • Medical Science, MSc, PhD
6. Biomedical Toxicology
   • Medical Science, MSc, PhD
7. Cardiovascular Sciences
   • Medical Science, MSc, PhD
8. Environment and Health
   • Medical Science, MSc, PhD
9. Genome Biology and Bioinformatics
   • Medical Science, PhD
10. Health Care, Technology and Place
    • Medical Science, PhD
11. Health Services and Policy Research
    • Medical Science, MSc, PhD
12. Knowledge Media Design
    • Medical Science, MSc, PhD
13. Neuroscience
    • Medical Science, MSc, PhD
14. Women’s Health
    • Medical Science, MSc, PhD

Overview
The Master of Health Science in Bioethics is designed for practitioners wishing to augment their knowledge and skills in bioethics. It provides the theoretical, methodological, and applied skills requisite for health care professionals to face the bioethical challenges posed by modern health care. The program is a course-only, professional master’s degree program. Students interested in a research-stream program should consider the Collaborative Program in Bioethics (CPB). The program provides practical experience strongly informed by theory that includes education, research, and clinical components. The curriculum directly reflects the functional needs of clinician-teachers or bioethics case consultants.

The Master of Science in Biomedical Communications is a two-year professional master’s program involving the artist/visual communicator in medical and health education and research. The program offers two fields: Biomedical Media Design and Biomedical Visualization Design.

The Master of Health Science in Medical Radiation Science is designed for expert radiation therapy clinicians who wish to expand their academic competence and contribution and advance their clinical skills. The program is a two-year full-time program and is composed of course work (required and elective), clinical practica and a master’s research project - all designed to provide foundational radiation medicine content, expand clinical and reasoning skills, and further develop the skills of enquiry, innovation, knowledge translation, and evidence-based practice. Didactic courses will run primarily outside of regular working hours – mornings, evenings and weekends – with the exception of the clinical practica in the final year that require 30 hours of clinical practice per week at an affiliated teaching site.

The Master of Science and Doctor of Philosophy programs in Medical Science are 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:
1. biomedical science
2. clinical science
3. population health/health services
4. bioethics
5. health professions education
6. radiation oncology

The full-time MSc and PhD programs emphasize hands-on research, rather than course work. 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 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).

Contact and Address

Bioethics Program
Web: www.utoronto.ca/jcb/education/grad_MHSc.htm
E-mail: carmen.alfred@utoronto.ca
Telephone: (416) 978-0871
Fax: (416) 978-1911
Degree Programs

Bioethics

Master of Health Science

Minimum Admission Requirements

- Normally four years of undergraduate study and a recognized degree in one of the health care sciences (e.g., MD, BScN, BScOT, BScPT, BSW) or equivalent. Applicants from other disciplines 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.
- The application must be accompanied by:
  - A current curriculum vitae;
  - Original university academic transcripts;
  - A letter of intent or statement of professional goals;
  - Three letters of reference;
  - A writing sample, in English.
- Deadline for receipt of applications is February 1. Enrolment is limited and not all applicants meeting the prerequisites will be admitted. Applicants are screened for eligibility; short-listed applicants are interviewed.

Program Requirements

- The program is offered in modular format in 20 two-day Thursday/Friday blocks from September to April, normally over two years; certain international students may complete all course work in one academic year.
- A major paper of publishable quality on a topic of the student's choice.
- A practicum that will ensure the application of the knowledge and skills gained elsewhere in the two-year program of study.
- Courses as outlined below.

Required Course List

Courses are restricted to students officially enrolled in the MHSc in Bioethics and the Collaborative Program in Bioethics, except where noted. All courses are understood as "or equivalent" in order to accommodate the diverse background education and training of applicants.

First year courses concentrate on theoretical foundations of health care sciences, philosophical medical ethics, and resource allocation and law and their application in the clinical setting.

Second year courses focus on applied skills and knowledge concentrating on teaching in a variety of settings to a variety of audiences; managing differences in culture, gender, and religion; the mediation skills with
which to work; further instruction in the two primary areas of clinical bioethics and research ethics.

**First year**
- HAD 5771H Resource Allocation Ethics
- MSC 3001Y Foundations Seminar I
- MSC 3003Y Empirical Approaches in Bioethics
- MSC3005H Legal Approaches to Bioethics
- PHL 2146Y Topics in Bioethics

**Second year**
- MSC 1051H Research Ethics
- MSC 1052H Clinical Bioethics
- MSC 3002Y Foundations Seminar II
- MSC 3004Y Ethics Committees and Consultations
  - For international students, MSC 3004Y is not required. Instead, MSC 3010Y International Research Ethics is required and is taken in May.
- MSC 3006Y Bioethics Independent Study
- MSC 3008Y Practicum

**Biomedical Communications**

**Master of Science in Biomedical Communications**

**Minimum Admission Requirements**
- graduation from a recognized university with a minimum four-year undergraduate degree which includes a variety of courses in the arts, sciences, and humanities
- minimum mid-B standing (73-76% or 3.0 based on a 4-point scale) in final two years of undergraduate study
- high-quality portfolio of visual material; consult the MScBMC Web site for list of prerequisite courses required for admission

**Program Requirements**
- 8.5 full-course equivalents (FCE); students have the option to select either 1.0 elective FCE and a master's research project and paper or 2.0 elective FCE and a master's research project
- in Year 2 of the graduate program, students enter their chosen field

**Course List**
- Consult Faculty each session regarding course offerings.

**Required Courses**
- LMP 1012H Seminars on Pathology
- MSC 1001Y Human Anatomy (Including Embryology)
- MSC 2001Y Visual Representation of Medical Knowledge
- MSC 2002Y Sequential Medical Communication
- MSC 2003Y Biomedical Communications Technologies
- MSC 2004H Research Methods
- MSC 2005H Evolution of Medical Illustration

**Medical Radiation Sciences**

**Master of Health Science**

**Minimum Admission Requirements**
- either hold relevant certification in Radiation Therapy or provide evidence for eligibility for such
- have obtained a minimum GPA of B+ (77-79%) over the final 2 years of (full-time) undergraduate studies
- have performed a minimum of 3 years (5000 hours) of professional practice within 5 years of application
- the application must be accompanied by:
  - three letters from professional referees (academic, professional or specific - see below)
  - a letter of intent
  - updated CV
  - original university academic transcripts
- applicants whose primary language is not English and who graduated from a university where the language of instruction 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 580 on the paper-based test and 5 on the Test of Written English (TWE); a minimum score of 237 on the computer-based test and 5 on the essay rating component; a minimum of 93 on the internet-based test and 22 on the writing/speaking sections.
  - **Michigan English Language Assessment Battery (MELAB)**: minimum score of 85.

*Courses which may continue over a program. The course is graded when completed.*
Medical Science

Master of Science

Minimum Admission Requirements

- Four-year 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 (e.g. 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.

Program Requirements

- 8.0 full-course equivalents, including required course work (4.0 FCE), elective course work (1.0 FCE), a major research paper (1.0 FCE), and practica (2.0 FCE)
- electives must be field related courses, as approved by the Program Director

Course List

- MSC1500H Advanced Radiotherapy and Medical Physics
- MSC 1501H Frontiers in Radiation Medicine Research
- MSC 1502H Translational Radiobiology Applied to Radiation Science
- MSC 1503H Clinical Reasoning and Decision Making in Radiotherapy Part I
- MSC 1504H Clinical Reasoning and Decision Making in Radiotherapy Part II
- MSC 1505H Clinical Reasoning and Decision Making in Radiotherapy Part III
- MSC 1506H Professional and Clinical Leadership
- MSC 1507H Clinical Competence and Continuous Learning
- MSC 1508H Medical Radiation Sciences Research Development
- MSC 1509H Master's Research Project
- MSC 1510Y Clinical Practicum I
- MSC 1511Y Clinical Practicum II

Program Requirements

- course work and research; program normally requires two years
- 1.0 graduate full-course equivalent (FCE) in addition to MSC 1010Y MSc Student Seminars
- a research thesis and oral thesis examination
- students are expected to be on campus and participating full time until all program requirements are completed

Doctor of Philosophy

Minimum Admission Requirements

- Applicants whose primary language is not English, and who graduated from a university where the language of instruction 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); a minimum score of 250 on the computer-based test and 5 on the essay rating component; or a minimum score of 93/120 on the internet-based test and 22/30 on the writing and speaking sections.
  - Michigan English Language Assessment Battery (MELAB): minimum score of 87.
  - International English Language Testing System (IELTS): minimum score of 7.5.
  - Certificate of Proficiency in English (COPE): minimum score of 5.

Program Requirements

- students are accepted via one of three routes:
  - after completing MSc degree (with a MSc thesis)
with at least A- standing from a recognized university.

- **Transfer from the IMS MSc** program. Outstanding students may be considered for reclassification into the PhD program without writing a MSc thesis.
- **Direct entry** into the PhD Program from a four-year BSc or an MD degree, without completing a MSc degree.

### Program Requirements

- **Coursework** - students may be required to take extra courses in addition to the degree requirements listed below:
  - **Students with MSc degree** (with a MSc thesis) complete a minimum of 1.0 graduate full-course equivalent (FCE), plus MSC 1011Y** PhD Student Seminars.**
  - **Transfer students from the IMS MSc** must complete 1.0 graduate FCE with a minimum A- average, plus MSC 1011Y** PhD Student Seminars.**
  - **Direct entry** students must pass a qualifying examination within 18-24 months of entry and must complete a minimum of 2.0 graduate FCE plus MSC 1011Y** PhD Student Seminars.**

- A research thesis must be submitted and the student must pass an internal examination before proceeding to the final PhD oral examination conducted by the School of Graduate Studies.
- Courses should be completed in the first year; research, written thesis, and oral defense will be completed by the end of year 3 or 4.
- Students are expected to be on campus and participating full time until all program requirements are completed.

### Course List

Not all courses are offered each year. Check departmental Web site for course availability.

- **JCV 3060H** Advanced Topics in Cardiovascular Sciences—Molecular Biology and Heart Signal Transduction
- **JCV 3061H** Advanced Topics in Cardiovascular Sciences—Hormones
- **JCV 3062H** Advanced Research in Cardiovascular Sciences—Heart Function
- **JCV 3063H** Advanced Research in Cardiovascular Sciences—Vascular
- **JFK 1120H** Selected Topics in Drug Development I
- **JFK 1121H** Selected Topics in Drug Development II
- **JHM 1000H** Issue Analysis in Interdisciplinary International Health Research
- **JPM 1005Y** Behavioural Pharmacology
- **JPM 1008H** Psychopharmacology and Women's Health
- **MSC 1001Y** Human Anatomy (Including Embryology)
- **MSC 1006H** Neuroanatomy
- **MSC 1008Y** Advanced Human Embryology and Teratology
- **MSC 1010Y** MSc Student Seminars (Credit/No Credit)
- **MSC 1011Y** PhD Student Seminars (Credit/No Credit)
- **MSC 1040H** Physiologic Basis of Disease
- **MSC 1051H** Research Bioethics
- **MSC 1052H** Clinical Bioethics
- **MSC 1060H** Biostatistics for Health Scientists
- **MSC 1080H** Introduction to Biostatistics and Clinical Epidemiology
- **MSC 1081H** Studies in Schizophrenia
- **MSC 1082H** Seminars in Psychosomatic Research
- **MSC 1084H** Glomerular Based Diseases—Bench to Bedside
- **MSC 1085H** Molecular Approaches to Mental Health and Addictions
- **MSC 1090H** Introduction to Clinical Biostatistics
- **MSC 1500H** Advanced Radiotherapy and Medical Physics
- **MSC 1501H** Frontiers in Radiation Medicine Research
- **MSC 1502H** Translational Radiobiology Applied to Radiation Science
- **MSC 1503H** Clinical Reasoning and Decision Making in Radiotherapy I
- **MSC 1504H** Clinical Reasoning and Decision Making in Radiotherapy II
- **MSC 1505H** Clinical Reasoning and Decision Making in Radiotherapy III
- **MSC 1506H** Professional and Clinical Leadership
- **MSC 1507H** Clinical Competence and Continuous Learning
- **MSC 1508H** Medical Radiation Sciences Research Development
- **MSC 1509H** Master's Research Project (0.5)
- **MSC 1510Y** Clinical Practicum 1
- **MSC 1511Y** Clinical Practicum 2
- **MSC 2010Y** Molecular Medicine in Human Genetic Disease
- **MSC 2020H** Diagnostic and Therapeutic Strategies in Genomic Medicine
- **MSC 4100H** Cell Mechanics: Structure, Function, and Disorder
- **MSC 5100H** Evolutionary Medicine: The Sociobiology of Sickness and Healing
- **MSC 6000H** Special Topics Reading Course
- **MSC 7000Y** Regenerative Medicine
- **MSC 8000Y** Transdisciplinary Studies in Infectious Disease (using Hepatitis C as a Model)
Graduate Faculty

Full Members
Abel, Sharon - BA, MA, PhD
Acker, Sandra - BA, MA, PhD
Aguir, Anne - BSc, MSc, PhD
Alain, Claude - BA, MA, PhD
Allard, Johane - MD
Alman, Benjamin - BSc, MD
Attisano, Liliana - BSc, PhD
Aubin, Jane - BSc, PhD
Awad, George - MD
Backx, Peter - DRMEDVET, PhD, PhD
Badley, Elizabeth - BSc, MSc, PhD
Bagby, Michael - PhD
Bagli, Darius - BS, MD
Baker, Andrew - MD, MD
Baker, G. Ross - AB, BS, MD
Bapat, Bharati - BSc, MSc, PhD
Barbaree, Howard - PhD
Barr, Cathy - BSc, PhD
Baruchel, Sylvain - BS, MD, MD
Bassett, Anne - BSc, MD
Bear, Christine - BSc, MSc, PhD
Beitchman, Joseph - MDCM
Belik, Jaques - MD
Belsham, Denise - PhD
Bendek, Michelle - BSc, PhD
Bhavnani, Bhagup - BSc
Bierman, Arlene - MS, MD
Black, Sandra - BSc, MD
Blanchard, Ray - MA, PhD
Bocking, Alan - MD
Bogoch, Earl - BA, MSc, MD
Bombatier, Claire - MA, MD
Boydell, Katherine Mary - BA, MHSc, PhD
Boyle, Joseph - BA, PhD
Bradley, T. Douglas - BA, MD
Brill, Julie - PhD
Bristow, Robert Glen - MD, PhD
Brooks, Dina - BSc(PT), MSc, PhD
Broussard, Dianne - PhD
Brown, Theodore - BSc, PhD
Brumell, John - BSc, PhD
Brunton, James - BSc, MD
Buys, Yvonne Margareth - LMCC, MD
Caldarone, Christopher - BSc, MD
Carlen, Peter - MD
Carnahan, Heather - BPHE, MSc, PhD
Casper, Robert - MD
Cassidy, David - BSc, MSc, PhD
Catton, Pamela - MHPE, MD
Catrall, Mark - MSc, BSCMED, MD
Catrann, Daniel - MD
Chan, Helen - MBBS
Chapman, Kenneth - MSc, MD
Chen, Robert - MB
Cheung, Angela - BA, MD, PhD
Cheyne, Douglas - BSc, MA, PhD
Chow, Chung-Wai - MD, PhD
Christensen, Bruce - BA, PhD
Clarke, David - PhD
Cohen, Zane - BA, MD
Cole, Edward - BSc, MSc, MD
Coles, John - MD
Cordes, Sabine - BS, PhD
Corey, Mary - BSc, PhD
Corey, Paul - BSc, MA, PhD
Croitoru, Ken - MDCM
Cusimano, Michael - MHPE, MD, PhD
Daar, Abdallah - MD
Daneman, Denis - BSc, MBChB, MBChB
Danska, Jayne - AB, PhD
Daskalakis, Zafiris Jeffrey - MD
Davis, Aileen - BSc(PT), MSc
Davis, Karen - BSc, MSc, PhD
Dawson, Laura - MD
de Veber, Gabriel - MD
Deber, Raisa - BS, MS, PhD
Dennis, Maureen - BA, MA, PhD
Detsky, Allan - BS, MD, PhD
Devins, Gerald - PhD
Donnelly, Sandra - BSc, MSc, MDCM
Dorian, Paul - MSc, MDCM
Downey, Gregory - BSc, MD
Drake, James - BSE, MSc, MBChB
Drucker, Daniel - MD
Dubrowski, Adam - BSc, MSc, PhD
Duchan, Suzanne - MBChB
Dunn, James - AB, AM, PhD
Echelle, Edward - MSc, MD
Eubanks, James - BSc, AA, PhD
Ezzat, Shereen - MD
Fantus, George - BSc, MDCM
Fehlings, Michael - LMCC, MD, PhD
Feinstein, Anthony - MBChB, PhD
Feldman, Brian - MD
Fernie, Geoffrey - BSc, PhD
Fish, Joel - BSc, MSc, MD
Fisher, Joseph - MD
Fleming, Alison - BS, PhD
Fleschner, Neil - MPH, LRCP, MD
Flint, Alastair - CHB
Floros, John - MD, DPhil
Forrest, Christopher - BSc, MSc, MD
Frank, John - BSc, MSc, MD
Frankland, Paul - MA, PhD
Fremes, Stephen - BA, MSc, MD
Gaisano, Herbert - BS, MD
Gallinger, Steven - MSc, MD
Garfinkel, Paul - MSc, MD
Giacca, Adria - MD
Gilbert, Richard - MBBS, PhD
Gladman, Dafna - MD
Glazier, Richard - MPhil, MD
Goering, Paula - BSc, MSc, PhD
Goh, M Cynthia - PhD
Goldstein, Roger - MBChB
Gorczynski, Reginald - BSc, BA, MA, MD, PhD
Grady, Cheryl - BA, MA, PhD
Granton, John - BS, MD
Grinstein, Sergio - BSc, PhD
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross, Gil</td>
<td>MD</td>
</tr>
<tr>
<td>Guha, Abhijit</td>
<td>BSc, MSc, MD</td>
</tr>
<tr>
<td>Gupta, Neeru</td>
<td>BM</td>
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Pei, York Po-Chee - MD
Pennefather, Peter - BSc, MD
Pawson, Anthony - PhD
Pigou, Jean-Phillipe - MD, PhD
Pollock, Bruce - BSc, MD, PhD
Post, Martin - PhD
Pringle, Dorothy - BScN, MS, PhD
Quaggin, Susan Elizabeth - MD
Rand, Margaret - BSc, PhD
Rao, Vivek - LMCC, MD, PhD
Ravindran, Arun - PhD
Read, Stanley - MSc, MD, PhD
Redelmeier, Donald - MS, MD
Regehr, Cheryl - AB, MA, PhD
Regehr, Glenn - BA, PhD
Reid, Denise - BScOT, MD
Remington, Gary - MD, PhD
Renwick, Rebecca - DIPOT, BA, PhD
Reznick, Richard - MA, MD
Richards, Robin - BA, MD
Roberts, Timothy - BA, MA, PhD
Roder, John - PhD
Rodin, Gary - BSc, MD
Romans, Sarah - MD
Rootman, David - BA, MD
Rosenblum, Norman - BSc, MDCH
Ross, Bernard - DipIng, PhD
Ross, Heather - BSc, MD
Rotin, Daniel - BSc, MSc, PhD
Rotstein, Ori - MSc, MD (Director)
Rottapel, Robert - BA, MD
Rourke, Sean - BSc, BA, PhD
Rovet, Joanne - BSc, PhD
Rubenfeld, Gordon - MSc, MD
Rubin, Barry - BSc, LMCC, MDCM, PhD
Rubin, Laurence - MD
Rummens, Anneke - PhD
Sadavoy, Joel - MD
Saint-Cyr, Jean - BA, MA, PhD
Salt, Irving - BSc, MDCH
Salter, Michael - MD, PhD
Sandor, Paul - BScB, MD
Schachar, Russell James - MD
Schemitsch, Emil - MD
Scherer, Stephen - PhD
Schimmer, Aaron - MD, PhD
Schlesinger, Larry - BSc, MD
Schneider, Malcolm - MD
Schneider, Richard - MSc, MD
Schiro, John - BSc, MD
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Shaw, Robert - MD
Shoja, Kaveh - PhD
Silverman, Earl - MD
Silverman, Frances - PhD
Silverman, Melvin - BSc, MSc
Simonovitch, Katherine - MD
Singer, Peter - MPH, MD
Slutsky, Arthur - BSc, MSc, MD
Sned, Carter - BA, MD, PhD
Stanford, William - BA, PhD
Steinert, Meir - MD, PhD
Stevens, Bonnie - BSc, MSc, DPhil
Stewart, Donna - DIPOT, BA, PhD
Stewart, Keith - BSc, MD
Stuart, Antonio - MD, PhD
Strauss, Bradley - MD
Streiner, David - PhD
Strother, Stephen - BSc, MS, PhD
Swallow, Carol - BA, MD, PhD
Sweeney, Neil - BSc, MD, PhD
Tannock, Rosemary - BSc, MA, PhD
Tanswell, Alan - BS, MBB, MBBS
Tarlo, Susan - BMBS
Taylor, Charles - MA, MD, PhD
Taylor, Ian - BA, MD
Tierney, Mary - BA, MA, PhD
To, Teresa - BA, MA, PhD
Toner, Brenda - BA, MA, PhD
Trachtenberg, John - BSc, MDCM
Trope, Graham - DOMS, LMCC, MD
Tu, Jack Ven - MD, PhD
Tymianski, Michael - BSc, MD, PhD
Ungar, Wendy - BA, MSc, PhD
Upshur, Ross Edward - BSc, BA, MA, MD
Urbach, David - MSc, MD
Urowitz, Murray - MD
Vaccarino, Franco - BSc, MSc, PhD
Van Der Kooy, Derek - BSc, MA, PhD
Verhoeff, Nicolaas - MD
Verma, Subodh - MSc, MD, PhD
Verrier, Mary (Molly) - DIPOT, MHS
Vincent, John - PhD
Vitkin, Alex - BSc, MSc, PhD
Waddell, Thomas - MSc, CSPO, LMCC, MD, PhD
Wald, Robert - BSc, MD
Ward, Michael - MD
Warde, Padraig - MB
Warsh, Jerry - MD
Wedge, John - BSc, MD
Weisel, Richard - BA, MD
Weksberg, Rosanna - MD, PhD
West, Lori - MD
Westall, Carol - BSc, MSc, PhD (Coordinator of Graduate Studies)
Whiteside, Catharine Isobel - BSc, MD, PhD
Whyne, Cari - BSc, PhD
Wiley, Mike - BSc, MSc, PhD
Williams, Paul - PhD
Wilson, Alan - BA, PhD
Wilson, Gregory - MSc, MD
Wittnich, Carin - MSc, DVM
Wong, Albert - MD, PhD
### Degree Programs by Graduate Unit

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### Members Emeriti

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### Associate Members

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<td>Karkouti, Keyvan - MD</td>
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<td>Liu, Fang - PhD</td>
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Mizrahi, Romina - MD, PhD
Moller, Henry - BSc, MD
Monks, Ashley - BSc, MA, PhD
Morrison, Laurie - BSc
Naik, Viren - MEd, MD
Nancekivell, Sharon - BA, BE, MA
Nanthakumar, Kumaraswamy - MD
Nathens, Avery - MPH, MD, PhD
Newton, Gary Evan - MD
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Nyhof-Young, Joyce - PhD
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Ouellet, Doreen - BA, AB, MHSc
Papsin, Blake Croll - BSc, MSc, MD
Richter, Peggy - MD
Rizoli, Sandro - LRCP, MD, PhD
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Silversides, Candice - MSc, MD
Singer, Lianne - MD
Sixel, Katharina - PhD
Strauss, John - MD
Strike, Carol - PhD
Szasz, Katalin - MD, PhD
Tandon, Anu - MD
Thorsteinsdottir, Halla - PhD
Trudel, Suzanne - MSc, MD
Van Reekum, Robert - BSc, MD
Vasdev, Neil - PhD
Venkateswaran, Vasundara - BSc, MPH, MSc, PhD
Von Harsdorf, Rudiger - MD
Wall, Shelley - PhD
Wang, Jun-Feng - PhD
Wang, Qinghua - DSc
Wen, Xiao-Yan - PhD
Wiljer, David - PhD
Wilson-Pauwels, Linda - ATD, BSc, MEd, EdD
Wong, Rebecca - MBChB
Woolridge, Nicholas - BFA, BSc, BFA, MSc
Degree Programs by Graduate Unit

Medieval Studies

Faculty Affiliation
Arts and Science

Degree Programs Offered
Medieval Studies – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Ancient and Medieval Philosophy
   • Medieval Studies, PhD
2. Book History and Print Culture
   • Medieval Studies, MA, PhD
3. Editing Medieval Texts
   • Medieval Studies, PhD
4. Jewish Studies
   • Medieval Studies, MA, PhD
5. Sexual Diversity Studies
   • Medieval Studies, MA, PhD
6. Women and Gender Studies
   • Medieval Studies, MA, PhD

Overview
The Centre for Medieval Studies provides interdisciplinary 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 and at the end of the spring session. All incoming students must take the Level One Latin examination at the beginning of the fall session for placement purposes.

Contact and Address
Web: www.chass.utoronto.ca/medieval/
E-mail: medieval.studies@utoronto.ca
Telephone: (416) 978-4884

Centre for Medieval Studies
University of Toronto
125 Queen's Park, Third floor
Toronto, Ontario M5S 2C7
Canada

Degree Programs

Medieval Studies

Master of Arts

Minimum Admission Requirements
- Four-year BA, or its equivalent, with at least B+ standing in previous courses. Course work in the medieval period must have formed part of the program.
- Applicants for the MA degree, full-time and part-time, must:
  - Follow application instructions on the department's Web site
  - 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 may be full-time or part-time. Full-time students may be admitted to either a one-year or a two-year degree, depending on their previous training in Latin and medieval studies.
- MA students must either achieve a pass of the Level One Medieval Latin examination upon arrival or else attain credit in MST 1000Y in the first year of enrollment in the MA program.
- Students may obtain an MA in medieval studies by course work or by a combination of course work and thesis.
  - In the course work option, the student must successfully complete 4.0 full-course equivalents (FCE), unless he or she passes the Level One Latin examination upon arrival, in which case 3.0 FCE are required. MA students who pass the Level One Latin examination on arrival are required to take only 3.0 FCE for the MA; however, those interested in eventually proceeding to the PhD are strongly urged to audit MST 1001Y. (Enrolment for credit for MST 1001Y is open only to students enrolled in a doctoral program.) MA students who do not pass the Level One Latin examination on arrival MUST register for MST 1000Y.
  - In the thesis option, in addition to the thesis, 3.0 FCE are required or else 2.0 FCE plus a Level One Latin examination pass upon arrival in the program. An MA thesis must be on a subject approved by the Centre, and the topic must be submitted to the Centre by November 30 of the MA year.
- Course training in Latin is given at three levels. All students are expected to arrive with knowledge equivalent to a first-year university course in Latin language. MST 1000Y Introductory Medieval Latin 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.

**Doctor of Philosophy**

**Minimum Admission Requirements**
- Applicants must satisfy the Centre of their ability to do independent research of high quality. Students may be admitted via one of two routes:
  - a four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, with an average grade of at least A- in the applicant's overall program.
  - a University of Toronto master's degree in medieval studies or a related field, or its equivalent from a recognized university, with an average grade of at least A- in the applicant's overall program. Students in the Centre's MA program must apply formally for admission to the PhD program on the same basis as all other applicants.
- All applicants must:
  - follow application instructions on the department's Web site.
  - complete 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**
- The PhD is offered only on a full-time basis. During the first two years, students must take a minimum of 3.0 FCE, including 1.0 FCE in one minor subject. In view of the Centre's interdepartmental nature, courses in medieval philosophy, history, music, English, and so on, that are related to the general area of the major field may be counted as minors, as long as they do not directly constitute part of the major field proposal. MST 1001Y may not be counted as a minor subject or included in the 3.0 FCE minimum for the degree, but it must be taken in addition to the 3.0 FCE minimum by all those who do not pass the Level Two Latin examination upon arrival in the program.
- Course training in Latin is given at two levels. MST 1001Y *Intermediate Medieval Latin* 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 MST 1001Y 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 MST 1001Y but require further training in order to achieve the Level Two Latin examination pass.
- Level Two Latin examination and the Centre's examinations in the French and German languages. No other language may be substituted for either of these.
- When students have qualified in these three languages, they may proceed to the major field examination whose purpose is to demonstrate both the student's scholarly expertise in the particular area of the doctoral dissertation and a broader academic competence.
- Students should seek out a provisional supervisor by the beginning of the second year and contact two other academic advisors as early as possible, no later than the end of the second year.
- As soon as possible thereafter, students should prepare a major field proposal. The proposal must be signed by all three of the student's advisors and submitted to the PhD Secretary for approval at least two months prior to the major field examination.
- The major field examination ordinarily must be passed before the student registers for the fourth year of the program.
- The outline of the student's proposed doctoral dissertation should be worked out by the student in close consultation with the supervisor and the advisory committee. The complete PhD dissertation prospectus should be prepared according to the Centre's guidelines. The candidate will be required to defend the dissertation at the final oral examination.
- It is possible to complete a PhD in Medieval Studies in four years, but some students, depending on their background preparation, find that it takes longer than four 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 four years.

**Course List**

Not all courses are offered every year. Please consult the Centre's Web site which lists the courses the Centre for Medieval Studies will offer 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.

Courses marked (PR) have prerequisites; further information may be obtained from the Centre's Web site.

**Foundations and Theory of Medieval Studies**

HIS 1201H, MST 3101H, MST 3103H, MST 3201H, MST 3301H, MST 3401H, MST 3501H. Please refer to the detailed listing below for complete titles.

**Art**

FAH 1120H Problems in Patronage
FAH 1121H Twelfth-Century Renaissance?
FAH 1122H Crusaders in the East: Art and Life
FAH 1123H The Art of the Medieval Book
FAH 1124H Byzantine Church Decoration
Degree Programs by Graduate Unit

FAH 1125H Medieval Pilgrimage Art and Architecture
FAH 1126H Exceptional Cities of the Middle Ages
FAH 1127H Early Medieval Art
FAH 1128H Byzantine Art and the West
FAH 1130Y The Classical Tradition in Western Medieval Art
FAH 1131H Profane Medieval Art
FAH 1134H Communal Painting and Propaganda in Italy During the Thirteenth and Fourteenth Centuries
FAH 1135H Naples in the Later Middle Ages
FAH 1141H Words and Images in Medieval Art
FAH 1142H Multicultural Middle Ages
FAH 1147H Beginning of Modernism: From Images to Pictures
FAH 1172H Medieval Visualizations of “Reality”: Life, War, and Death
FAH 1200H Crusader Art
FAH 1208H Writings of Robert Grosseteste
FAH 1209H The Anglo-Saxons
FAH 1210H Gregory of Tours and the Sixth Century
FAH 1213H Medieval Institutes of Perfection (joint graduate/undergraduate)
FAH 1214H The Merovingians
FAH 1215H Social Change in Medieval England, 1154-1279
FAH 1218H The Mediaeval Church (joint graduate/undergraduate)
FAH 1220H Mediaeval Canon Law (joint graduate/undergraduate)
FAH 1221H Topics in Early Modern European Social History
FAH 1222H Ritual in Renaissance and Early Modern Europe
FAH 1223H Humanism and the Renaissance
FAH 1230H The Sexes in the Western World, 1450-1650
FAH 1231H Crusades, Conversion and Colonialization in the Medieval Baltic (joint graduate/undergraduate)
FAH 1233Y ‘Kievian Rus’

Book History and Print Culture
BKS 1000Y Book History and Print Culture
BKS 2000H Advanced Seminar in Book History and Print Culture
BKS 2001H Practicum in Book History and Print Culture

Classics
CLA 5007H Criticism of Latin Poetry
CLA 5017H Latin Legal Texts and the History of Late Roman Institutions

Comparative Literature
COL 5032H Feminist Approaches to Medieval Literature
COL 5064H Medieval Literary Theory

East Asian Studies
EAS 1143Y Civilization in Medieval China

English
ENG 1001H Old English I
ENG 1002H Old English II
ENG 1017H Body and Identity in Middle English Literature
ENG 1094H Discourses of Vernacular Spirituality
ENG 1550H Chaucer
ENG 1583H Langland: Piers Plowman

French Language and Literature
FRE 1164H Medieval French Language and Literature

Germanic Languages and Literatures
GER 1200H Middle High German

History
HIS 1201H The Materials of Medieval History (Credit/No Credit)
HIS 1207H Pastoralia: The Medieval History of Pastoral Care
HIS 1208H Writings of Robert Grosseteste
HIS 1209H The Anglo-Saxons
HIS 1210H Gregory of Tours and the Sixth Century
HIS 1213H Medieval Institutes of Perfection (joint graduate/undergraduate)
HIS 1214H The Merovingians
HIS 1215H Social Change in Medieval England, 1154-1279
HIS 1218H The Mediaeval Church (joint graduate/undergraduate)
HIS 1220H Mediaeval Canon Law (joint graduate/undergraduate)
HIS 1221H Topics in Early Modern European Social History
HIS 1222H Ritual in Renaissance and Early Modern Europe
HIS 1223H Humanism and the Renaissance
HIS 1230H The Sexes in the Western World, 1450-1650
HIS 1231H Crusades, Conversion and Colonialization in the Medieval Baltic (joint graduate/undergraduate)
HIS 1233Y ‘Kievian Rus’

History and Philosophy of Science and Technology
HPS 1215H Medieval Technology and Society
HPS 1217H Technology and War: 1090-1918
HPS 5007H Fundamentals of the History of Technology I

Italian Studies
ITA 1025H Old Italian
ITA 1165H Introduction to Italian Philology
ITA 1170H Textual Criticism and the Editing of Early Italian Texts
ITA 1200H Dante
ITA 1203H Boccaccio
ITA 1330H Petrarch and Petrarchism
ITA 1540H Renaissance Italian Theatre
ITA 1545H The Sacra Rappresentazione
ITA 1597H The Commedia dell’Arte

Joint Courses
JMT 1001H Topics in the Ancient Philosophical Commentators (PR)
JRL 1100Y Introduction to Romance Philology

Institutional Studies
MST 1000Y Introductory Medieval Latin
MST 1001Y Intermediate Medieval Latin
MST 1002H Topics in Medieval Latin Literature (PR)
MST 1012H Carolingian Poetry (PR)
MST 1013H Pre-Conquest Anglo-Latin Literature (PR)
MST 1016H Hagiology of the Norman Transition (PR)
MST 1017H Medieval Exegesis (PR)
MST 1020H The Medieval Latin Epic (PR)
MST 1022H Virgil in the Middle Ages (PR)
MST 1035H Humanistic Latin (PR)
MST 1101H Codicology (PR)
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<td>MST 1102H</td>
<td>Practical Palaeography (PR)</td>
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<td>MST 1104H</td>
<td>Latin Palaeography I (PR)</td>
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<td>MST 1105H</td>
<td>Latin Palaeography II (PR)</td>
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<td>MST 1107H</td>
<td>Latin Textual Criticism (PR)</td>
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<td>MST 1110H</td>
<td>Diplomatics and Diplomatic Editing (PR)</td>
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<td>MST 1111H</td>
<td>Sources and Materials for Editing Medieval Texts (PR)</td>
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<td>MST 1113H</td>
<td>Vernacular Text-Editing: A Collaborative Project</td>
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<td>English Palaeography (PR)</td>
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<td>MST 1120H</td>
<td>Literacy in Early Medieval Europe</td>
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<td>MST 1121H</td>
<td>Literacy in Late Antiquity (c.284-632)</td>
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<td>Judeo-Christian Koine Greek (PR)</td>
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<td>MST 1212H</td>
<td>The Apocryphal Bible (PR)</td>
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<td>MST 1371H</td>
<td>Old English Philology: Grammar (PR)</td>
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<td>The Bickling Homilies (PR)</td>
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<td>Homilies of the Vercelli Book (PR)</td>
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<td>The Exeter Book of Old English Verse (PR)</td>
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<td>Theory and Practice in the Editing of Old English Texts (PR)</td>
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<td>MST 1386H</td>
<td>Materials for Anglo-Saxon Studies</td>
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<td>MST 1392H</td>
<td>Editing and Appreciating Wulfstan’s Prose (PR)</td>
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<td>MST 1398H</td>
<td>Alfredian Prose (PR)</td>
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<td>MST 1425H</td>
<td>Medieval Magic: Predicting the Future and Influencing Events (PR)</td>
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<td>MST 2001H</td>
<td>Old Saxon</td>
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<td>MST 2005H</td>
<td>German Heroic Epic (PR)</td>
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<td>MST 2006H</td>
<td>Wolfram von Eschenbach: Parzival (PR)</td>
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<td>Old Norse</td>
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<td>MST 2015H,Y</td>
<td>Studies in Old Norse Texts (PR)</td>
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<td>MST 2017H</td>
<td>The Sources of Norse Myths (PR)</td>
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<td>MST 2021H</td>
<td>Insular Literacy 400-1200</td>
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<td>MST 2030Y</td>
<td>Old and Middle Irish</td>
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<td>MST 2031H</td>
<td>Early Irish Saga (PR)</td>
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<td>MST 2032H</td>
<td>Medieval Irish Poetry 500-1600 (PR)</td>
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<td>Textual Studies in Medieval Irish Poetry (PR)</td>
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<td>MST 2038H</td>
<td>Medieval Brittany (PR)</td>
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<td>Saints, Monasteries, and Heretics in Medieval Brittany</td>
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<td>MST 2040H</td>
<td>Beginnings of Medieval Rhetoric and Poetics (PR)</td>
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<td>Music in Medieval Life</td>
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<td>Middle Welsh</td>
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<td>Studies in Middle Welsh Texts (PR)</td>
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<td>Augustine of Hippo: Life and Writings</td>
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<td>MST 3021H</td>
<td>Boethius (PR)</td>
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<td>Consolation Through the Ages: Later Medieval Approaches to Boethius’s Consolation of Philosophy (PR)</td>
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<td>The Medieval Alexander (PR)</td>
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<td>MST 3035H</td>
<td>Alexander Neckam: Life and Works (PR)</td>
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<td>Current Theory and Medieval Texts: An Introduction</td>
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<td>The Theory of the Middle Ages</td>
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<td>MST 3131H</td>
<td>Troubadours and Trouvères</td>
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<td>MST 3140Y</td>
<td>Medieval Catalan Language and Literature</td>
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<td>MST 3150H</td>
<td>Medieval French Epic I (PR)</td>
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<td>MST 3152H</td>
<td>Introduction to Old Occitan (PR)</td>
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<td>MST 3153H</td>
<td>Old Occitan Troubador Poetry (PR)</td>
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<td>MST 3154H</td>
<td>British History in French: Wace, Brut (PR)</td>
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<td>MST 3155H</td>
<td>Chrétien de Troyes, Percival (PR)</td>
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<td>MST 3156H</td>
<td>Charlemagne: Facts and Legends</td>
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<td>MST 3157H</td>
<td>Old French and Old Occitan Crusade Epics (PR)</td>
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<td>MST 3158H</td>
<td>The Roman de la Rose and Medieval Allegory (PR)</td>
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<tr>
<td>MST 3162H</td>
<td>Boccaccio and Chaucer</td>
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<td>MST 3201H</td>
<td>Medieval Social History</td>
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<tr>
<td>MST 3203H</td>
<td>Topics in Medieval Economic History</td>
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<tr>
<td>MST 3204H</td>
<td>Marxism and Premodern History</td>
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<td>MST 3205H</td>
<td>Violence in Medieval Society</td>
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<tr>
<td>MST 3210H</td>
<td>Medieval Spain (PR)</td>
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<td>MST 3223H</td>
<td>Medieval and Early Modern Inquisitions</td>
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<td>MST 3225H</td>
<td>Jews and Christians in Medieval and Renaissance Europe</td>
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<tr>
<td>MST 3230H</td>
<td>The Common Law of Medieval Europe</td>
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<td>MST 3235H</td>
<td>Communal Florence, 1150-1500 (PR)</td>
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<td>MST 3236H</td>
<td>The Papal Monarchy</td>
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<td>MST 3242H</td>
<td>The Carolingians and the Birth of Europe (PR)</td>
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<td>Dark Age Italy</td>
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<td>Saints and their Cities in Early Medieval Italy</td>
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<td>MST 3259H</td>
<td>Medieval Monastic Culture: Lands of St. Benedict</td>
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<td>Monastic Identities</td>
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<td>MST 3265H</td>
<td>Hagiographies and Methodologies</td>
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<td>Naming the Rose: Intellectual History of the Later Middle Ages (PR)</td>
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<td>Themes in Medieval Philosophy</td>
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<td>MST 3306H</td>
<td>Augustine on Will and Grace (PR)</td>
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<td>MST 3307H</td>
<td>Augustine in Transition (PR)</td>
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<td>MST 3309H</td>
<td>Fear and Loathing in the Middle Ages: Medieval Theories of the Emotions (PR)</td>
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<td>MST 3311H</td>
<td>Topics in Medieval Metaphysics (PR)</td>
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<td>MST 3321H</td>
<td>Philosophy of Mind in the Middle Ages (PR)</td>
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<td>MST 3322H</td>
<td>William of Ockham (PR)</td>
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<td>MST 3325H</td>
<td>Introduction to Medieval Ethical Theory (Twelfth to Fourteenth Century)</td>
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<td>MST 3326H</td>
<td>Individuation and Individuality in Medieval and Early Modern Philosophy</td>
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<td>MST 3345H</td>
<td>Prophets and Philosophers: Theories of Prophecy in the Medieval Islamic, Jewish and Christian Traditions</td>
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<td>MST 3401H</td>
<td>Introduction to Medieval Christianity</td>
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<td>MST 3405H</td>
<td>Early Christian Monasticism</td>
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<tr>
<td>MST 3501H</td>
<td>Introduction to the Medieval Christian Liturgy</td>
</tr>
<tr>
<td>MST 9310Y,H</td>
<td>Directed Reading</td>
</tr>
<tr>
<td>MST 9315Y,H</td>
<td>Directed Reading</td>
</tr>
</tbody>
</table>

**Music**

- MUS 1040H Topics in Medieval Music
- MUS 1063H Musical Notation of the Middle Ages
Degree Programs by Graduate Unit

Near and Middle Eastern Civilizations
NMC 1311Y Post-Biblical Hebrew: Mishnah and Midrashim
NMC 1324Y Hebrew Legal Codes, Medieval and Modern
NMC 1326Y Topics in Midrashic Literature
NMC 1500Y Archaeology, from Alexander to Muhammad
NMC 2090Y Islamic History to the Fall of Baghdad
NMC 2119H Readings in Mediaeval Arabic Legal Documents
NMC 2131H Ethics and Education in Medieval Arabic Texts
NMC 2132H Hadith: Classical Religious Literature in Islam
NMC 2133H Medieval Arabic Sources on Islamic Thought
NMC 2135H Story-tellers, Travellers, and Warriors in Mediaeval Arabic Literature
NMC 2221H Medieval Persian Ethical and Advice Literature
NMC 2222H Persian Mystical Poetry
NMC 2225H History of Medieval Iran and Central Asia
NMC 2226H Readings in Medieval Persian Historical and Documentary Sources
NMC 2500H Early Islamic Art and Architecture
NMC 2515Y The Islamic City
NMC 2520H Western Medieval Islamic Architecture
NMC 2521H The Taj Mahal and Its Origins: Medieval Islamic Architecture in Iran, Central Asia, and India
NMC 2526H Islamic Painting
NMC 2527H Islamic Decorative Arts
NMC 2540Y Islamic Archaeology

Philosophy
PHL 2020H Augustine
PHL 2030H Aquinas
PHL 2032H Seminar in Aquinas
PHL 2040H Medieval Philosophy
PHL 2041H Seminar in Medieval Philosophy
PHL 2042H Topics in Medieval Philosophy
PHL 2045H Late Medieval Philosophy

Religion
RLG 3224Y Early Eastern Christianity
RLG 3225Y Early Churches in Cross-Cultural Perspective
RLG 3232H Sacred Space in the Christian Tradition
RLG 3653Y Jewish Exegetical Traditions in Antiquity
RLG 3941Y Celtic Mythology
RLG 3944H Uses of the Bible in the Middle Ages

Slavic Languages and Literatures
SLA 1104H Introduction to Old Church Slavonic
SLA 1109H Studies in Old Church Slavonic

Spanish
SPA 2021H The Politics of Print
SPA 2022H Books and Borders

Graduate Faculty

Full Members
Abray, L Jane - BA, MA, MPH, PhD
Akbari, Suzanne - BA, MA, MPH, PhD
Armstrong, Lawrin - BA, MA, MA, MDiv, PhD
Bartlett, Kenneth - BA, MA, PhD
Black, Deborah - BA, MA, PhD
Blackmore, Josiah - PhD
Bowen, William - BA, BMus, MA, PhD
Carley, James - BA, MA, PhD
Caskey, Jill - AB, MA, MPH, PhD
Cochelin, Isabelle - MA, PhD
Cohen, Adam - PhD
Dewar, Michael - BA, MA, DPhil
Dimnik, Martin - BA, MA, MDiv, DPhil
Dooley, Ann - BA, MA, PhD
Drescher, B Elan - BA, PhD
Eisenbichler, Konrad - BA, MA, PhD
Everett, Nicholas - BA, MA, PhD
Ewan, Elizabeth - BA, PhD
Gervers, Michael - BA, MA, PhD
Gillespie, Alexandra - BA, BSc, PhD
Goering, Joseph - BA, MA, MSL, PhD
Guenther, Sebastian - MA, PhD
Haines, John - BSc, BA, MA, PhD
Hall, Bert - BA, PhD
Harvey, Elisabeth Ruth - PhD (Coordinator of Graduate Studies)
Healey, Antonette - BA, MA, PhD
Herren, Michael - PhD
Hoffmann, Richard - BA, PhD
Hutchison, Ann - BA, MA, PhD
Kaczynski, Bernice - BA, MPH, PhD
Keith, Alison - BA, MA, PhD
King, Peter - AB, PhD
Kivimae, Juri - AM, PhD
Klausner, David - AB, PhD
Kullmann, Dorothea - PhD
Lancashire, D Ian - BA, MA, PhD
Magee, John - BA, MA, PhD (Director)
Meyerson, Mark - BA, PhD
Mulchahey, M. Michele - BA, MA, PhD
Murray, Alexander - BA, PhD
Murray, Jacqueline - PhD
Northrup, Linda - BA, MA, PhD
Orchard, Andrew - DPhil, PhD
Percy, Carol - BA, MA, DPhil
Pietropaolo, Domenico - BSc, MA, PhD
Robins, William - BA, MPH, PhD
Ross, Jill - MA, PhD
Rozemond, Marleen - BA, PhD
Saleh, Walid - BA, MA, PhD
Schallert, Joseph - PhD
Silano, Giulio - BA, LLB, BEd, MA, PhD
Sinkewicz, Robert - BA, PhD
Subtelny, Maria - BA, PhD
Sweetman, Robert - BA, MA, PhD

306  Medieval Studies
Terpstra, Nicholas - BA, MA, PhD
Townsend, David Robert - BA, MA, PhD (Associate Director)
Wollesen, Jens - PhD

Members Emeriti
Brown, Virginia - AB, MA, PhD
Burke, James - BA, MA, PhD
Davis, Natalie - BA, MA, PhD
Dutka, JoAnna - BA, MA, PhD
Farge, James - BA, MA, PhD
Frank, Roberta - BA, MA, PhD
Goffart, Walter - AB, AM, PhD
Hughes, Andrew - MA, DPhil
Johnston, Alexandra - PhD
Mayer, Hartwig - PhD, PhD
Stock, Brian - AB, PhD
Taylor, Robert - PhD

Associate Members
Andree, U.O. Alexander - BA, PhD
Boyle, Marjorie - AM, PhD
Currie, Gabriela Ilnitchi - MA, PhD
Evans, Claude - BA, MA, PhD
Holland, Joan - BA, PhD
MacLean, Sarah - BA, MA, PhD
McDougall, David - BA, MA, PhD
McDougall, Ian - BA, MA, PhD
Stock, Markus - MA, PhD
Molecular Genetics

Degree Programs by Graduate Unit

Molecular Genetics

Faculty Affiliation
Medicine

Degree Programs Offered
Genetic Counselling - MSc
Molecular Genetics – MSc, PhD

Overview
The Department of Molecular Genetics is located in the Medical Sciences Building, the FitzGerald Building, the Best Institute, the Hospital for Sick Children, and the Mount Sinai Hospital.

The Master of Science program in Genetic Counselling is a full-time professional degree program that prepares students with the academic and clinical skills to provide genetic counselling. Graduates may work as part of a health-care team to gather relevant medical and family histories, to guide further investigations, and to communicate probable or established diagnoses, mode of inheritance, natural history, risk of recurrence, and associated options. This program has been accredited by the American Board of Genetic Counseling.

The Master of Science and the Doctor of Philosophy programs in Molecular Genetics offer 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.

For detailed information on these programs, visit the Department's Web site.

Collaborative Programs
Degree programs that participate in:

1. Biomedical Structure
   - Molecular Genetics - PhD
2. Developmental Biology
   - Molecular Genetics - PhD
3. Genome Biology and Bioinformatics
   - Molecular Genetics - PhD
4. Neuroscience
   - Molecular Genetics, MSc, PhD

Contact and Address
Web: www.moleculargenetics.utoronto.ca
E-mail: 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

Degree Programs

Genetic Counselling

Master of Science

Minimum Admission Requirements
- Four-year University of Toronto bachelor's degree with a B+ standing both cumulatively and in the final year, or its equivalent from another university.
- Prerequisite courses in biology, molecular biology/genetics, biochemistry, embryology/developmental biology, statistics, and psychology.
- The development of strong interpersonal skills as evidenced by extracurricular activity is sought in both the application and interview processes.
- Conditional acceptance may be granted to outstanding applicants lacking the above prerequisite courses; in such instances, the courses deemed necessary must be completed with a B+ standing prior to admission.

Program Requirements
- Students must complete 14 required courses (totaling 6.5 full course-equivalents (FCE) listed below) laboratory and clinical practica with a minimum B standing. Lectures, meetings, and rounds must be attended at a minimum of 85% of scheduled occurrences.
- There is no thesis requirement, but an independent research project consisting of a limited clinical research study, an extensive literature review from a novel viewpoint, or a new case presentation involving clinical, cytogenetic, and molecular work-up will be completed and presented both orally and in written format suitable for publication.
- Students spend 18 months over a 2-year period in full-time attendance.
- Students are encouraged to organize an intervening summer rotation in a geographic location of their choice.
Required Courses
MSC 2010Y Advanced Concepts in Human Genetic Disease
MMG 1120Y Clinical Rotations I
MMG 1122Y Issues in Genetic Counselling I
MMG 1124Y Principles of Effective Counselling
MMG 1126Y Clinical Issues in Pregnancy and Child Development
MMG 1128Y Risk Calculation and Research Methodology
MMG 1130Y Tutorial in Molecular Genetics
MMG 1132H Laboratory Skills
MMG 1220Y Clinical Rotations II
MMG 1222Y Issues in Genetic Counselling II
MMG 1224Y Advanced Principles of Effective Counselling
MMG 1226Y Concepts in Clinical Genetics
MMG 1228Y Independent Research Project
MMG 1230H Cancer Genetic Counselling

Molecular Genetics

Master of Science

Minimum Admission Requirements
• Normally a B.Sc. or M.D. degree or equivalent with
  excellent academic credentials in molecular biology,
  genetics, microbiology, and/or biochemistry.

Program Requirements
• Successful completion of MMG 1012H\(^*\) (or equiva-
  lent) and MMG 1015Y\(^*\) (seminar course), MMG
  1016H\(^*\) (or equivalent), and MMG 1017H\(^*\).
• A thesis on a research project.
• Students entering the doctoral program from a mas-
  ter's program, either through transfer or admission,
  are required to spend a minimum of two sessions in
  full-time attendance. Students entering the doctoral
  program from a bachelor's program are required to
  spend a minimum of three sessions in full-time at-
  tendance.

Course List
JBB 1425H Biophysical Methods
JBB 2025H Protein Crystallography
JDB 1025H Developmental Biology
MMG 1012H\(^*\) Topics in Molecular Genetics I (formerly
  MMG 1012Y)
MMG 1015Y\(^*\) Seminar
MMG 1016H\(^*\) Topics in Molecular Genetics II (formerly
  MMG 1014Y)
MMG 1017H\(^*\) Topics in Molecular Genetics III
MMG 1420H\(^*\) Regulation of Gene Expression
MMG 1425H Signal Transduction and Cell Cycle
  Regulation
MMG 1451H\(^*\) Genetic Analysis of Development: Yeast
  and Worms

Doctor of Philosophy

Minimum Admission Requirements
• Admission via one of three routes:
  o Admission into the PhD program with a complet-
    ed MSc degree or equivalent from the University
    of Toronto or another recognized university.
  o Reclassification to the PhD program during the
    first or second year in the MSc program.
  o Under exceptional circumstances, outstanding
    students with a BSc degree, an MD degree, or
    equivalent, may be accepted directly into the PhD
    program.
• Attainment of minimum admission standards does
  not guarantee acceptance into the PhD program.

Program Requirements
• Successful completion of MMG 1012H\(^*\) (or equiva-
  lent) and MMG 1015Y\(^*\) (seminar course), MMG
  1016H\(^*\) (or equivalent), and MMG 1017H\(^*\).
• A thesis on a research project.
• Students entering the doctoral program from a mas-
  ter's program, either through transfer or admission,
  are required to spend a minimum of two sessions in
  full-time attendance. Students entering the doctoral
  program from a bachelor's program are required to
  spend a minimum of three sessions in full-time at-
  tendance.

Graduate Faculty

Full Members
Andrews, Brenda Jean - BSc, PhD
Andrulis, Irene - BA, PhD
Aubin, Jane - BSc, PhD
Bader, Gary - BSc, PhD
Bernstein, Alan - MD
Blencowe, Benjamin - BSc, PhD
Bogna, Andrew - BSc, PhD
Boone, Charlie - BSc, PhD
Boulianne, Gabrielle - BSc, PhD
Brill, Julie - PhD
Brown, Martha - BSc, MSc, PhD
Brumell, John - BSc, PhD
Chan, Hue Sun - BSc, MA, PhD
Ciruna, Brian - BSc, PhD
Cochrane, Alan - BSc, PhD
Collins, Richard - BSc, PhD
Cordes, Sabine - BS, PhD
Cowen, Leah - BSc, PhD
Davidson, Alan Richard - BSc, PhD (Coordinator of
  Graduate Studies)
Dennis, James - PhD
Derry, W. Brent - BSc, MSc, PhD
Dick, John - PhD
Durocher, Daniel - PhD
Edwards, Aled - BSc, PhD
Egan, Sean - PhD

*Listing (course description) in the Faculty of Arts and Science
  Calendar, Molecular Genetics and Molecular Biology Program

\(^{*}\)Course which may continue over a program. The course is graded
  when completed.
Ellis, James - PhD
Emili, Andrew - DPM
Frappier, Lori - PhD
Funnell, Barbara - PhD
Gallie, Brenda - MD
Giaever, Guri - BS, PhD
Gingras, Anne-Claude - BSc, PhD
Gray-Owen, Scott - BS, PhD
Greenblatt, Jack - BSc, PhD
Hudson, Thomas J - MD
Hughes, Timothy - BSE, BMus, PhD
Hui, Chi-Chung - PhD
Ingles, C James - BSc, PhD
Joshi-Sukhwal, Sadhna - BSc, MSc, PhD, DSc
Kaplan, David - BA, PhD
Kay, Lewis - PhD
Krause, Henry - BSc, PhD
Lavoie, Brigitte - PhD
Lipshitz, Howard - PhD (Chair & Graduate Chair)
Liu, Jun - PhD
McInnes, Roderick - MD, MD
McNeill, Helen - PhD
Meneghini, Marc - BSc, PhD
Meyn, Michael - MD
Miller, Freda - BSc, PhD
Moffat, Jason - BSc, PhD
Moran, Michael - BSc, PhD
Morris, Quaid - BS, PhD
Nagy, András - PhD
Navarre, William - BSc, PhD
Nislow, Corey - BA, PhD
Osborne, Lucy - PhD
Pai, Emil - PhD
Parkinson, John - BS, PhD
Pawson, Anthony - PhD
Pearson, Christopher - PhD
Pelletier, Laurence - BSc, MSc, PhD
Ray, Peter - PhD
Rini, James - BSc, PhD
Roder, John - PhD
Rommens, Johanna - BSc, PhD
Rossant, Janet - PhD
Roy, Peter John - BSc, PhD
Scherer, Stephen - PhD
Scott, Ian - BSc, PhD
Segall, Jacqueline - BSc, PhD
Sicheri, Frank - BSc, PhD
Siminovitch, Katherine - MD
Smibert, Craig - BSc, PhD
Spence, Andrew - BSc, PhD
Stagljar, Igor - BS, PhD
Stein, Lincoln - BA, MD, PhD
Steipe, Boris - MD, PhD
Tailor, Chetanwara - PhD
Teyss, Michael - PhD
Van Der Kooy, Derek - BSc, MA, PhD
Wilde, Andrew Rhys - BSc, PhD
Wodak, Sharon - LICSCCHEM, PhD
Wrana, Jeff - PhD
Zhang, Zhaolei - BS, PhD
Zhen, Mei - PhD

Members Emeriti
Becker, Andrew - MD, PhD
Buchwald, Manuel - PhD
Campbell, James - BSc, PhD
Carver, Jeremy - BA, PhD
Chan, Voon - BSc, MSc, PhD
Gold, Marvin - BA, PhD
Krepinsky, Jiri - MSc, PhD, DRRERNAT
Murielado, Helios - MS, PhD
Penner, John - PhD
Sadowski, Paul - MD, PhD
Siminovitch, Louis - BSc, BSc, PhD
Thompson, Margaret - MD

Associate Members
Babul-Hirji, Riyana - BSc, MSc
Chitayat, David - MD
Clarke, Joe - MD
Cytrynbaum, Cheryl - MSc
Druker, Harriet - MSc
Dupuis, Lucie - MSc
Feigenbaum, A - MBChB
Harrison, Christine - BA, MA, PhD
Kaiser, Amy - BA
Kim, Philip - BS, PhD
Klatt, Regan - BSc, MSc
Koren, Gideon - MD
Lemmens, Trudo - LLM, DCL
Mendoza, Roberto - MD
Okamoto, Kenichi - BS, MA, PhD
Quercia, Nada - BS, MSc
Shugar, Andrea - BSc, MS
Shuman, Cheryl - MSc
Sutherland, Joanne - MSc
Teebi, Ahmad - MB, MBChB, BS
Teshima, Ikuko Eileen - PhD
Thomas, Michal - MSc
Trevors, Christopher - BSc, MS
Weksberg, Rosanna - MD, PhD
Winsor, Elizabeth - BSc, MSc, PhD
Yoon, Grace - MD
Music

Faculty Affiliation
Music

Degree Programs Offered

Music – MA, PhD
Fields:
Musicology
Ethnomusicology
Music Education

Music Performance – MMus, DMA
MMus Fields:
Collaborative Piano
Conducting
Instrumental
Jazz
Opera
Piano Pedagogy
Vocal
Vocal Pedagogy
DMA Fields:
Composition
Performance

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Book History and Print Culture
   • Music, MA, PhD
2. Editing Medieval Texts
   • Music, PhD
3. 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 five areas of concentration and fosters the institutional alliance of all areas of advanced music study. In addition to our longstanding graduate degrees in the areas of composition, music education, and musicology, we have recently introduced master’s and doctoral degree specialisations in ethnomusicology as well as a doctoral degree in performance. Although music theory is not offered as a named degree specialisation, students in this field of study are welcome to enrol in our musicology degree programs. Graduates from all areas of our program occupy leading positions in music departments across Canada and around the world.

Contact and Address
Web: www.music.utoronto.ca/
E-mail: 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

Degree Programs

Music

Master of Arts

The MA in Music degree is offered in three fields:
1. Musicology
2. Ethnomusicology
3. Music Education

Field: Musicology

Minimum Admission Requirements
- Applicants to the MA in musicology are accepted under the general regulations.
- A University of Toronto Bachelor of Arts specialist degree or the Bachelor of Music degree with an average standing of mid-B or better over the final two years, or equivalent standing from another university. 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.

Program Requirements
The two-year MA program in musicology requires 6.0 full-course equivalents (FCE) including:
- Introduction to Music Research I and II (MUS 1000H and MUS 1001H) in year 1.
- We advocate interdisciplinarity with ethnomusicology, and while the majority of electives chosen will reflect traditional scholarship in Western art music, others may be chosen to provide a broader base that includes non-Western and popular musics. To reinforce the notion of interdisciplinarity, up to 1.0 FCE may be taken from another graduate unit.
- The primary means of evaluating quality are research essays and seminar presentations. The MA Major Paper (MUS 1990H) is optional.
Field: Ethnomusicology

Minimum Admission Requirements

- Applicants to the MA in ethnomusicology are accepted under the general regulations.
- University of Toronto Bachelor of Arts specialist degree or the Bachelor of Music degree with an average standing of mid-B or better over the final two years, or the equivalent standing from another university. 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.

Program Requirements

The two-year MA program in the field of ethnomusicology requires 6.0 full-course equivalents (FCE) including:

- Introduction to Music Research I and II (MUS 1000H and MUS 1001H) in year 1.
- Fieldwork Methods and Practicum (MUS 1002H), offered in alternate years.
- We advocate interdisciplinarity with musicology, and while the majority of electives reflect sociomusical scholarship of non-Western and popular musics, others provide a broader base that includes traditional scholarship in Western art music. To reinforce the notion of interdisciplinarity, up to 1.0 FCE may be taken from another graduate unit.
- The primary means of evaluating quality are research essays and seminar presentations. The MA Major Paper (MUS 1990H) is optional.
- 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.

Field: Music Education

Minimum Admission Requirements

- 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 university. Applicants whose undergraduate degree does not meet this standard may be required to take appropriate prerequisite courses.

Program Requirements

- Students may complete the degree program full-time or part-time.
- Students must complete 4.0 full-course equivalents (FCE) including:
  - a minimum of 2.5 FCE in music education, including MUS 2111H Research Methods in Music Education and MUS 2151H 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 (MUS 2990Y) may be substituted for 1.0 FCE with the approval of the department
- Pass a comprehensive examination in music education (written and oral).
- All degree requirements must be completed within five years of first enrolment.

Doctor of Philosophy

The PhD in Music degree is offered in three fields:
1. Musicology
2. Ethnomusicology
3. Music Education

Field: Musicology

Minimum Admission Requirements

- The PhD in musicology 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 from elsewhere, may be interviewed by the department.
- Exceptional students may be admitted directly to the doctoral stream with an appropriate bachelor’s degree (direct entry).

Program Requirements

- Students holding a master’s degree in musicology, ethnomusicology, or theory must fulfill the following requirements:
  - A minimum of 3.0 full-course equivalents (FCE)
  - The PhD Seminar (MUS 1250H) is taken in the first session.
• Course work should be completed during year 1 of study with an average grade of at least A-.
  • The exception is MUS 1999H, which lays the groundwork for the major 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.
• Students may be required to take additional courses or acquire other skills to meet the needs of their proposed subjects of study.
  • Students must demonstrate advanced reading knowledge of German; however, with departmental permission, another non-English language may be substituted, provided it is required for the approved research. Advisory committees 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.
  • Students must prepare a thesis under the direction of an advisor and a committee and will defend it at a final 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.
• Direct-entry PhD: Students holding an appropriate bachelor's degree must complete the following requirements as a prerequisite to undertaking the requirements listed above for students with master's degree in hand:
  o 3.0 FCE at the graduate level must be completed in year 1 with a minimum average of A-

Field: Ethnomusicology

Minimum Admission Requirements
  • The PhD in ethnomusicology 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.
  • Exceptional students may be admitted directly to the doctoral stream with an appropriate bachelor's degree (direct entry).

Program Requirements
  • Students holding a master's degree in musicology, ethnomusicology, or theory must fulfill the following requirements:
  o 3.0 full-course equivalents (FCE). 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. By the end of year 1, 2.5 FCE must be completed with at least a grade of A. The PhD Seminar (MUS 1250H) is compulsory and must be taken in the first session. Other courses will be chosen from the departmental list; however, with departmental approval, 0.5 graduate FCE may be taken outside the department.
  o MUS 1997H Research in Ethnomusicology, which lays the groundwork for the major field examination and the dissertation, 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 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.
  o During year 1, students are expected to discuss their interests, expectations, and research objectives with faculty members. An appropriate supervisor of MUS 1997H must then be agreed upon. The supervisor will be primarily responsible for determining the structure and content of MUS 1997H, which will include a research paper.
  o All course requirements must be completed by the end of year 2.
• Students must prepare a thesis and will defend it at a final examination.
  • Direct-entry PhD: Students holding an appropriate bachelor's degree must complete the following requirements as a prerequisite to undertaking the requirements listed above for students with master's degree in hand:
  o An intermediate-level language examination must be taken in year 1. All language requirements must be completed by year 3.
  o Students must take 3.0 FCE in year 1, exclusive of MUS 1250H and MUS 1997H. An average grade of at least A- must be maintained to continue with the doctorate; otherwise, the student will be required to transfer into the master's program. Successful students go on to take 3.0 more FCE in year 2, inclusive of MUS 1250H in the first session and MUS 1997H from the beginning of the second session.
  o All course requirements must be completed by the end of year 3.

Field: Music Education

Minimum Admission Requirements
  • Applicants must hold a master's degree in music education from this university with an average standing of B+ or better, or an equivalent degree and standing from another 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.
• Applicants must provide their results on the Miller Analogies Test.
• At the discretion of the faculty, applicants may be required to provide a videotape of their teaching expertise.
• Appropriate letters of reference commenting on the applicant's teaching experience, music performance ability, and academic ability.

Program Requirements
• 6.0 full-course equivalents (FCE) including:
  o At least 2.0 FCE (including MUS 2995Y Music Education Doctoral Research Project) must be taken from the departmental offerings in music education.
  o 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.
  o At the department's discretion, the student may receive credit for up to 3.0 FCE from an acceptable master's degree program.
• Students must be registered full time, on campus for a minimum of two sessions, in order to be in such geographical proximity as to be able to participate fully in the department's activities associated with the program.
• Language requirements, if any, will be established by the student's advisory committee, based on specific research needs.
• 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.
• 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.

Courses
Final course offerings may vary. Students should consult the departmental handbook.

MA/PhD in Musicology/Ethnomusicology
MUS 1000H Introduction to Music Research I
MUS 1001H Introduction to Music Research II
MUS 1058H Music and Politics
MUS 1066H Music and the Racial and Ethnic Imaginations
MUS 1067H Orpheus
MUS 1140H Romantic Musings on the Middle Ages
MUS 1142H Sound, Music, and Everyday Life
MUS 1204H Orientalism and Opera: Interdisciplinary Approaches
MUS 1215H Music in Cities and Courts 1575-1750
MUS 1223H Virtuosity in Baroque Music
MUS 1236H Haydn
MUS 1243H The Italian in Handel
MUS 1244H Rhythm and Metre in Cross-Cultural Perspective
MUS 1246H Music and Colonialism
MUS 1250H PhD Seminar
MUS 1265H Critical Approaches to the Music of Benjamin Britten
MUS 1266H Music, Space & Place
MUS 1267H Popular Music and Identity
MUS 1317H Music in Canada
MUS 1990H MA Major Paper
MUS 1997H Research in Ethnomusicology
MUS 1998H Individual Reading and Research
MUS 1999H Research in Musicology
MUS 3101H Seminar in Schenkerian Analysis I
MUS 3309H Brahms: Symphonies and Chamber Music
MUS 3412H Theories of Rhythm and Metre

MA/PhD in Music Education
MUS 2010H Seminar in Music Education
MUS 2111H Research Methods in Music Education
MUS 2151H Philosophy and Music Education
MUS 2160H Contemporary Perspectives in Music Education
MUS 2180H Seminar in Canadian Music Education
MUS 2182H Writing in Music Education
MUS 2199H Special Topics in Music Education
MUS 2222H Conducting and Teaching Choral Music I
MUS 2223H Conducting and Teaching Choral Music II
MUS 2990Y MusM Major Essay (Music Education)
MUS 2995Y Music Education Doctoral Research Project
MUS 2996H Reading in Advanced Topics in Music Education

Other courses

Music Performance

Master of Music
The MMus in Music Performance degree is offered in nine fields:
1. Composition
2. Instrumental
3. Vocal
4. Opera
5. Conducting
6. Jazz
7. Collaborative Piano
8. Vocal Pedagogy
9. Piano Pedagogy

Minimum Admission Requirements
• Applicants for the Master of Music (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 university. Applicants whose undergraduate degree does not meet this standard may be required to take appropriate prerequisite courses.

- Applicants in composition must submit several original compositions, at least one of which shall be with moderately large instrumentation.
- Applicants in Instrumental, Vocal, Opera, Conducting, Jazz, Collaborative Piano, Vocal Pedagogy, and Piano Pedagogy must pass an audition.

Program Requirements

Field: Composition
- Minimum of 6.0 full-course equivalents (FCE) taken over two years, including MUS 3100Y and its continuation MUS 3105Y.
- Students may be required to take additional courses based on the results of diagnostic tests in musical analysis, counterpoint, and harmony given upon entrance.
- Under the guidance of an advisor, each student will prepare an original composition in large form or an electroacoustic composition of comparable dimensions which will be defended at a final oral examination.

Field: Instrumental
- 7.0 full-course equivalents (FCE) of which 5.0 FCE must include:
  - MUS 4444Y and MUS 4445Y (applied lessons)
  - 1.0 FCE in music literature (MUS 4200Y) normally taken in the first year of the program
  - 1.0 FCE selected from MUS 4600H or MUS 4606H; MUS 4610H; MUS 4615H
  - Students in brass, percussion, strings, and woodwinds will complete 1.0 FCE as two years of ensemble performance. Placement to be determined by audition.
  - 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. Recitals may include a chamber music component with the approval of the department.

Field: Vocal
- 7.0 full-course equivalents (FCE) of which 5.0 FCE must include:
  - MUS 4444Y and MUS 4445Y (applied lessons)
  - 1.0 FCE in music literature (MUS 4200Y) normally taken in program year 1
  - 1.0 FCE selected from MUS 4600H or MUS 4606H; MUS 4610H; MUS 4615H
  - 1.0 FCE chosen from a specified list approved by the department
- Two recitals. Recitals may include a chamber music component with the approval of the department.

Field: Opera
- 7.0 full-course equivalents (FCE) as follows:
  - MUS 4444Y and MUS 4445Y (applied lessons)
  - 1.0 FCE in music literature (MUS 4200Y, taken in year 1)
  - MUS 4620Y Advanced Performance Studies taken in year 2
  - 1.0 FCE chosen from a specified list approved by the department
  - 2.0 FCE in Operatic Studies (MUS 4900Y and MUS 4901Y)
- Performance in operatic productions will be evaluated by a committee and assigned grades under MUS 4966Y Operatic Role I and MUS 4988Y Operatic Role II.

Field: Conducting
- 6.0 full-course equivalents (FCE) including:
  - 1.0 FCE in music literature (MUS 4200Y, normally taken in year 1)
  - 1.0 FCE selected from: MUS 4600H or MUS 4606H; MUS 4610H; MUS 4615H
  - Orchestral conducting majors must also complete MUS 4220H, MUS 4221H, MUS 4222Y, MUS 4223H, and MUS 4700H (choral)
  - Wind ensemble conducting majors must also complete MUS 4226H, MUS 4227H, and MUS 4228Y
  - Choral conducting majors must also complete MUS 4223H, MUS 4224H, MUS 4225Y, MUS 4220H, and MUS 4700H (choral).
- Two public performances.

Field: Jazz
- 7.0 full-course equivalents (FCE) including:
  - MUS 4444Y; MUS 4445Y; MUS 4300Y, normally taken in year 1
  - MUS 4606H; MUS 4615H
  - Either MUS 4310Y, MUS 4311Y, 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 (MUS 4740H, MUS 4741H, MUS 4742H, MUS 4743H)
    - Jazz Orchestra (MUS 4750H, MUS 4751H, MUS 4752H, MUS 4753H) or
    - Vocal Jazz Ensemble (MUS 4760H, MUS 4761H, MUS 4762H, MUS 4763H)
- Two recitals; however students may elect to replace one recital with a significant recording project.

Field: Collaborative Piano
- 7.0 full-course equivalents (FCE) including:
  - MUS 4444Y and MUS 4445Y (applied lessons)
  - 1.0 FCE in music literature (MUS 4200Y), normally taken in year 1
  - 1.0 FCE selected from MUS 4600H; MUS 4610H; MUS 4615H
 Degree Programs by Graduate Unit

- MUS 4504H Advanced Song Studies for Pianists
- MUS 4506H Sonata Coaching I
- MUS 4214H Advanced Repertoire for Singers and Pianists II
- MUS 4730H Performance Studies I: Piano-Instrumental Master Class
- MUS 4502H Collaborative Piano Studio Class

Based on the outcome of preliminary consultations with the department, students may be required to take MUS 4500H Advanced Diction Studies.

- Two recitals.

**Field: Vocal Pedagogy**

- 7.0 full-course equivalents (FCE) as follows:
  - MUS 4444Y and MUS 4445Y (applied lessons)
  - 1.0 FCE in music literature (MUS 4200Y), normally taken during year 1
  - 1.0 FCE selected from MUS 4600H, MUS 4610H and MUS 4615H; or MUS 4620Y
  - MUS 2122H, MUS 4240H, MUS 4241H, MUS 4248H
  - 0.5 FCE selected from MUS 4231H, MUS 4231H, and MUS 4730H
  - 0.5 FCE chosen from a list of courses approved by the department

- Two recitals.

**Field: Piano Pedagogy**

- 7.0 full-course equivalents as follows:
  - MUS 4444Y and MUS 4445Y (applied lessons)
  - 1.0 FCE in music literature (MUS 4200Y), normally taken during year 1
  - 1.0 FCE selected from MUS 4600H, MUS 4610H; MUS 4615H; MUS 4770Y; MUS 4771H; MUS 4772H; and MUS 4773H
  - 1.0 FCE chosen from MUS 2122H; MUS 4730H-4733H; MUS 4620Y; or from a list of courses approved by the department

- Two recitals.

**Doctor of Musical Arts**

The DMA in Music Performance degree is offered in two fields:
1. Composition
2. Performance

**Field: Composition**

**Minimum Admission Requirements**

- Applicants for the Doctor of Musical Arts (DMA) in composition must hold the degree of Master of Music in composition from the University of Toronto, or its equivalent from another 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.

**Program Requirements**

- Students take a minimum of 5.0 full-course equivalents (FCE), including MUS 3300Y, MUS 3305Y, and MUS 3999Y (research project, selected in consultation with the advisory committee). 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.
- Upon completion of course work, students are required to present a recital of original works (MUS 3888Y) 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 final oral examination.
- Students must complete all requirements for the DMA within six years.

**Field: Performance**

**Minimum Admission Requirements**

- Applicants for the Doctor of Musical Arts (DMA) in performance must hold the degree of Master of Music 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.
Program Requirements

- Students must complete a minimum of 5.0 full-course equivalents (FCE) as follows:
  - MUS 4800H DMA Seminar is taken in the first session
  - MUS 4899H Work on Research in Performance is begun in the second session
  - Advanced Applied Music I and II (MUS 4844Y and MUS 4845Y)
  - Remaining 2.0 FCE must be graduate seminar courses

- Course work should be completed by the end of year 2 with an average grade of at least A-.
  Exceptions to the time of completion are MUS 4899H Research in Performance, which lays the groundwork for the dissertation research and leads to a major field examination in the middle of year 2, and MUS 4845Y 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.

- Three DMA recitals - MUS 4866Y, MUS 4877Y, MUS 4888Y. The format of these recitals will be determined in consultation with the major teacher and the supervisory committee.

- Reading knowledge in 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.

Course List

Final course offerings may vary. Students should consult the departmental handbook.

MusM/DMA in Composition

MUS 3100Y MMus Advanced Composition I
MUS 3101H Seminar in Schenkerian Analysis I
MUS 3105Y MMus Advanced Composition II
MUS 3110H Classical Orchestration
MUS 3222H Composing for Film
MUS 3225H Music of Gubaidulina, Coulthard, and Chen
MUS 3227H Composing for Film 2
MUS 3229H The Twentieth-Century Symphony
MUS 3245H The Music of Ligeti and Lutoslawski
MUS 3300Y DMA Advanced Composition I
MUS 3305Y DMA Advanced Composition II
MUS 3309Y Brahms: Symphonies and Chamber Music
MUS 3404H Extended Tonal Techniques in the Twentieth Century
MUS 3410H Advanced Analysis: 1850-1910
MUS 3412H Theories of Rhythm and Metre
MUS 3420H Composing for Percussion
MUS 3512H Research in Composition
MUS 3800H Electroacoustic Music
MUS 3888Y DMA Recital of Works
MUS 3999Y Research Project (DMA)
MUS 4615H Analysis and Performance Practices of Twentieth-Century Music

MusM/DMA in Performance

MUS 4200Y Seminar in Music Literature
MUS 4213H Advanced Repertoire for Singers and Pianists I
MUS 4214H Advanced Repertoire for Singers and Pianists II
MUS 4219H Perspectives on the Business of Music Performance
MUS 4220H Orchestral Conducting I
MUS 4221H Orchestral Conducting II
MUS 4222Y Advanced Orchestral Conducting
MUS 4223H Choral Conducting I
MUS 4224H Choral Conducting II
MUS 4225Y Advanced Choral Conducting
MUS 4226H Wind Ensemble Conducting I
MUS 4227H Wind Ensemble Conducting II
MUS 4231H Advanced Vocal Repertoire Study I
MUS 4232H Advanced Vocal Repertoire Study II
MUS 4241H Advanced Vocal Pedagogy and Vocation
MUS 4248H Optimizing the Singing Mind
MUS 4270H Piano Pedagogy – Beginning and Intermediate Levels
MUS 4271H Practicum - Beginning and Intermediate Levels
MUS 4300Y Seminar in Jazz Studies
MUS 4310Y Advanced Jazz Composition and Arranging I
MUS 4311Y Advanced Jazz Composition and Arranging II
MUS 4444Y Applied Music I
MUS 4445Y Applied Music II
MUS 4500H Advanced Diction Studies
MUS 4504H Advanced Song Studies for Pianists
MUS 4506H Sonata Coaching I
MUS 4507H Sonata Coaching II
MUS 4510H Opera Performance for Pianists
MUS 4512H Operatic Répétiteur
MUS 4600H Performance Practices Before 1800
MUS 4606H Special Topics in Performance Practice
MUS 4610H Analysis and Performance: Music of the Eighteenth and Nineteenth Centuries
MUS 4615H Analysis and Performance Practices of Twentieth-Century Music
MUS 4620Y Advanced Performance Studies
MUS 4700H Major Ensemble I
MUS 4701H Major Ensemble II
MUS 4702H Major Ensemble III
MUS 4703H Major Ensemble IV
MUS 4706H Contemporary Chamber Ensemble I
MUS 4707H Contemporary Chamber Ensemble II
MUS 4708H Contemporary Chamber Ensemble III
MUS 4709H Contemporary Chamber Ensemble IV
MUS 4710H Chamber Music I
MUS 4711H Chamber Music II
MUS 4712H Chamber Music III

*Course which may continue over a program. The course is graded when completed.*
MUS 4713H Chamber Music IV  MUS 4714H Chamber Choir I
MUS 4715H Chamber Choir II  MUS 4717H Chamber Choir IV
MUS 4720H Opera I  MUS 4721H Opera II
MUS 4722H Opera III  MUS 4723H Opera IV
MUS 4730H Performance Studies I  MUS 4731H Performance Studies II
MUS 4732H Performance Studies III  MUS 4733H Performance Studies IV
MUS 4740H Small Group Jazz Performance I  MUS 4741H Small Group Jazz Performance II
MUS 4742H Small Group Jazz Performance III  MUS 4743H Small Group Jazz Performance IV
MUS 4750H Jazz Orchestra I  MUS 4751H Jazz Orchestra II
MUS 4752H Jazz Orchestra III  MUS 4753H Jazz Orchestra IV
MUS 4760H Vocal Jazz Ensemble I  MUS 4761H Vocal Jazz Ensemble II
MUS 4762H Vocal Jazz Ensemble III  MUS 4763H Vocal Jazz Ensemble IV
MUS 4770H Oratorio Ensemble I  MUS 4771H Oratorio Ensemble II
MUS 4772H Oratorio Ensemble III  MUS 4773H Oratorio Ensemble IV
MUS 4774H Early Music Instrumental Ensemble I  MUS 4775H Early Music Instrumental Ensemble II
MUS 4776H Early Music Instrumental Ensemble III  MUS 4777H Early Music Instrumental Ensemble IV
MUS 4780H World Music Ensemble I  MUS 4781H World Music Ensemble II
MUS 4782H World Music Ensemble III  MUS 4783H World Music Ensemble IV
MUS 4785H Piano/Instrumental I  MUS 4786H Piano/Instrumental II
MUS 4787H Piano/Instrumental II  MUS 4792H Piano/Instrumental III
MUS 4793H Piano/Instrumental IV  MUS 4800H DMA Seminar
MUS 4844Y Advanced Applied Music I  MUS 4845Y Advanced Applied Music II
MUS 4866Y DMA Recital I  MUS 4877Y DMA Recital II
MUS 4888Y DMA Recital III  MUS 4899H Research in Performance
MUS 4900Y Operatic Studies I  MUS 4901Y Operatic Studies II
MUS 4966Y Operatic Roles I  MUS 4988Y Operatic Roles II
MUS 5700H Piano Master Class I  MUS 5701H Piano Master Class II
MUS 5702H Piano Master Class III  MUS 5703H Piano Master Class IV
MUS 5710H Early Music Vocal Ensemble I  MUS 5711H Early Music Vocal Ensemble II
MUS 5712H Early Music Vocal Ensemble III  MUS 5713H Early Music Vocal Ensemble IV
MUS 6666Y Recital I  MUS 8888Y Recital II

Courses recognized for MusM in Performance and MA graduate credit
Available to MA students only with the permission of the department.

MUS 1030H Topics in Romantic Music
MUS 1040H Topics in Medieval Music
MUS 1090H Topics in Ethnomusicology

Graduate Faculty

Full Members
Averill, Gage - BA, BA, PhD, PhD
Bartel, Lee - BA, BMus, MEd, PhD
Bowen, William - BA, BMus, MA, PhD
Briskin, David - MA
Cain, M. Celia - BA, MA, PhD
Chan, Ka Nin - BASc, BMus, MMus, MusD
Clark, Caryl - BMus, MA, PhD
Dolloff, Lori Anne - MUSB, PhD
Edwards, Darryl - BEd, BMus, MMus, DMA
Elliott, Robin - BMus, MA, PhD
Gould, Elizabeth - BM, MA, MusDoc
Haines, John - BSc, BA, MA, PhD
Hartenberger, J Russell - MB, MM, PhD (Dean)
Hatzis, Christos - MusM, PhD
Horst, Sandra - BMus, MM
Im, Miah - BMUSA
Johnston, Gregory - MUSB, MA, PhD (Coordinator of Graduate Studies)
Kippen, James - BA, PhD
Koga, Midori - BMus, AA, MMus, DMA
Kruspe, John - MusBac
Kulesha, Gary - AA
Lee, Sherry - BMus, MMus, PhD
Loewen, Che Anne - TD, BMus, BA, MMus
Macdonald, Lorna - BME, MMus
MacKay, Gillian - BMus, MMus, DMA
McClelland, Ryan - BMus, MM, PhD
McLeod, Kenneth - AM, PhD
Palej, Norbert - BM, MM, DMA
Parker, James - BMus, MM, DMA
Parker, Mary Ann - BA, MM, PhD
Patrick, Dennis - MusBac, MMus

Courses which may continue over a program. The course is graded when completed.
Promane, Terry
Rao, Doreen - BS, MM, PhD
Rapoport, Alexander - MMus, MusDoc
Read, Paul - MusBac, BEd, MusM
Reynolds, Jeffrey - BMus, BA, MA, MMus, PhD
Ries, Timothy - BM, MM
Rolston, Shauna - BA, MM
Sallmen, Mark - BM, MA, PhD
Sanger, Annette - BAMUSIC, PhD
Shand, Patricia - BA, MMus, EdD
Sicsic, Henri-Paul - MMus, DMA
Walter, Cameron - BMus, MMus, EdD
Wong, Lydia - BMus

Members Emeriti
Aide, William - BSc
Beach, David - BA, MusM, PhD
Hughes, Andrew - MA, DPhil
Laufer, Edward - MusBac, MusM, MFA, PhD

Associate Members
Haines, Mary - MusBac
Hennigar, Harcus - BMus, BA
Komisaruk, Kevin - BMus, MMus, MusDoc
Stanbridge, Alan - BSc, AM, DA
Near and Middle Eastern Civilizations

Faculty Affiliation
Arts and Science

Degree Programs Offered
Near and Middle Eastern Civilizations – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Jewish Studies
   • Near and Middle Eastern Civilizations, MA, PhD
2. Sexual Diversity Studies
   • Near and Middle Eastern Civilizations, MA, PhD
3. Women and Gender Studies
   • Near and Middle Eastern Civilizations, MA, PhD

Overview
The Department of Near and Middle Eastern Civilizations offers graduate programs leading to the Master of Arts and Doctor of Philosophy in two fields, listed below with associated faculty research areas:

Ancient Near Eastern Studies
Near Eastern Archaeology (Egyptian, Mesopotamian, Syro-Palestinian, Islamic)
Assyriology
Near Eastern History
Egyptology
Hebrew and Judaic Studies
Aramaic-Syriac Studies

Middle Eastern and Islamic Studies
Syriac
Arabic Studies
Persian Studies
Turkish Studies
History of the Islamic World and the Modern Middle East
Islamic Religion and Philosophy
Islamic Art and Material Culture

Contact and Address
Web: www.utoronto.ca/nmc
Telephone: (416) 978-3181
Fax: (416) 978-3305

Department of Near and Middle Eastern Civilizations
University of Toronto
Second Floor, 4 Bancroft Avenue
Toronto, Ontario M5S 1C1
Canada

Degree Programs

Near and Middle Eastern Civilizations

Master of Arts

Minimum Admission Requirements
• Four-year BA 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 a concentration in Islamic Art and Material Culture must have a reading knowledge of French or German at the time of admission.

Program Requirements
• Depending upon the amount of undergraduate preparation, students may be enrolled in either a two-year or a one-year program.
• Students choosing a concentration in Islamic Art and Material Culture are required to successfully complete at least 6.0 full-course equivalents (FCE) in Art and Near and Middle Eastern Civilizations (a minimum of 2.0 FCE in each). This is normally a two-year program.

Doctor of Philosophy

Minimum Admission Requirements
• Admission via one of two routes:
  o 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.
  o 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.

Program Requirements
• Program of study is determined in consultation with the Department and includes written and oral general examinations. These examinations will be taken no later than January in the year following the completion of course work for the PhD program.
• Students are required to demonstrate reading comprehension in two languages of modern scholarship (typically French and German), the first by the end of their first year in residence, and the second by the end of their second year 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.

- Students are required to be registered on campus for the period during which course work requirements are being fulfilled, and in no case for less than two academic years.
- The minimum course requirement will normally be 6.0 graduate full-course equivalents (FCE). In approved cases, up to 3.0 FCE may be counted from the U of T MA program or its equivalent, at the discretion of the Department.

Course List

**Akkadian Language and Literature**

NMC 1001Y Introduction to Old Babylonian
NMC 1002Y Selected Standard Babylonian Texts
NMC 1003Y Akkadian Historical Texts
NMC 1006Y Akkadian Literary Texts
NMC 1007Y Akkadian Letters and Business Documents (Early Period)
NMC 1008Y Akkadian Letters and Business Documents (Late Period)

**Ancient Egyptian Language and Literature**

NMC 1201Y Introduction to Middle Egyptian Dialect
NMC 1202Y Middle Egyptian Texts
NMC 1203Y Late Egyptian Texts
NMC 1204Y Cursive Scripts
NMC 1209Y Old Egyptian Texts
NMC 1210Y Ancient Egyptian Historical Texts
NMC 1213Y Egyptian Religious and Funerary Literature

**Arabic Studies**

NMC 2100Y Introductory Standard Arabic
NMC 2101Y Intermediate Standard Arabic I
NMC 2102Y Intermediate Standard Arabic II
NMC 2103Y Advanced Standard Arabic
NMC 2117H Readings in Mediaeval Arabic Chronicles
NMC 2118H Readings in Mediaeval Arabic Biographical Literature
NMC 2119H Readings in Mediaeval Arabic Legal Documents
NMC 2120Y Readings from Muslim Chronicles of the Crusades
NMC 2130Y Topics in Arabic Literature
NMC 2131H Ethics and Education in Medieval Arabic Texts
NMC 2132H Hadith: Classical Religious Literature in Islam
NMC 2133H Mediaeval Arabic Sources on Islamic Thought
NMC 2134H Classical Arabic Poetry
NMC 2135H Story-tellers, Travellers and Warriors in Mediaeval Arabic Literature

**Aramaic-Syriac Language and Literature**

NMC 1100Y Introduction to Aramaic
NMC 1101Y Early Syriac Texts
NMC 1102Y Palestinian Aramaic Texts
NMC 1104Y Aramaic Epigraphy
NMC 1105Y Syriac Historical Texts
NMC 1106Y Syriac Exegetical Texts
NMC 1110H Palestinian Targum
NMC 1111Y Babylonian Aramaic

**Archaeology**

NMC 1400Y Introduction to the Archaeology of the Near East
NMC 1403H Art of Egypt
NMC 1406Y Problems in the Archaeology of Bronze Age Syria-Palestine
NMC 1407Y Problems in the Archaeology of Iron Age Syria-Palestine
NMC 1408Y Seminar in the Archaeology of Syria-Palestine
NMC 1409H Archaeology and Material Culture of Ancient Egypt I
NMC 1410H Archaeology and Material Culture of Ancient Egypt II
NMC 1411H Near Eastern Ceramics (1)
NMC 1412H Near Eastern Ceramics (2)
NMC 1414H Egyptian Artifacts
NMC 1415H Archaeology in Egyptian Art
NMC 1416H Egyptian Iconography
NMC 1417H Architecture of Egypt
NMC 1418Y Archaeology of Nubia
NMC 1419Y Art, Archaeology and Culture of Egypt in the Age of the Pyramids
NMC 1420H Selected Topics in Near Eastern Archaeology
NMC 1421Y Seminar in Egyptian Archaeology
NMC 1422Y Polarized-light Microscopy in Archaeology
NMC 1425H Mesopotamian Material Culture I: Art and Artifacts
NMC 1500Y Archaeology, from Alexander to Muhammad
NMC 2540Y Islamic Archaeology

**Gender-Related Topics in Law and Religion**

NMC 1608H Life Cycle and Personal Status in Judaism
NMC 1609H Gender-Related Topics in Law and Religion

**Hebrew Language and Literature**

NMC 1305H Early Hebrew Epigraphy
NMC 1306H Scribes, Manuscripts, and Translations of the Hebrew Bible
NMC 1309H Wisdom in Ancient Israel
NMC 1311Y Post-Biblical Hebrew: Mishnah and Midrashim
NMC 1312H Midrash Before the Rabbis: The Beginnings of Biblical Interpretation
NMC 1313H Mishnah and Tosefta
NMC 1314H Law in Ancient Judaism
NMC 1316H Modern Hebrew Poetry
Degree Programs by Graduate Unit

NMC 1317H Modern Hebrew Prose
NMC 1318H Midreshei Halakha: Purity and Cultic Texts
NMC 1319H Midreshei Halakha: Legal Texts and Narrative
NMC 1324Y Hebrew Legal Codes, Mediaeval and Modern
NMC 1326Y Topics in Midrashic Literature
NMC 1327H Themes in Midrashic Literature
NMC 1328H Intertextuality: Tannaitic and Amoraic Literature

History
NMC 2081H Anthropology of the Middle East
NMC 2090Y Islamic History to the Fall of Baghdad
NMC 2170H Topics in Modern Arab History I
NMC 2171H Topics in Modern Arab History II
NMC 2173H Intellectuals of the Modern Arab World
NMC 2180H Iranian Modernity
NMC 2225H History of Iran
NMC 2226H Zoroastrian Apocalyptic Literature
NMC 2310Y Ottoman History to 1800
NMC 2315Y Seminar in Topics from Ottoman History
NMC 2345Y The Steppe Frontier in Islamic History

Islamic Art and Material Culture
NMC 2500H Early Islamic Art and Architecture
NMC 2501H Later Islamic Art and Architecture
NMC 2515Y The Islamic City
NMC 2521H The Taj Mahal and Its Origins: Medieval Islamic Architecture in Iran, Central Asia, and India
NMC 2526H Text and Image: The Formation of Arabic and Persian Manuscript Illustration
NMC 2527H Islamic Decorative Arts
NMC 2530Y Selected Problems in Islamic Art and Archaeology
NMC 2541Y Contextualizing Medieval Middle Eastern and Islamic Pottery

Linguistics
NMC 1651H Phoenician and Punic Epigraphy
NMC 1652H Ugaritic
NMC 1653H Issues in Ancient Hebrew Philology
NMC 1654H Advanced Ancient Hebrew Grammar
NMC 1655H Comparative Semitics
NMC 1657H Issues in Ancient Hebrew Linguistics

Persian Studies
NMC 2035Y Women and Writing in Twentieth-Century Iran
NMC 2200Y Intensive Persian I
NMC 2201Y Intensive Persian II
NMC 2220Y Classical Persian Literature
NMC 2221H Medieval Persian Ethical and Advice Literature
NMC 2222H Persian Mystical Poetry
NMC 2223H The Masnavi of Rumi
NMC 2224H Persian Myths, Islamic Legends, and Mystical Allegories
NMC 2226H Medieval Persian Historical and Documentary Sources
NMC 2227H Topics on Zoroastrian Cosmology
NMC 2228H Zoroastrian Apocalyptic Literature
NMC 2235Y Literature and Society in Twentieth-Century Iran
NMC 2335H Literature by Iranians in the Diaspora

Religion and Philosophy
NMC 1613Y Ancient Western Asiatic Religions
NMC 1614Y Ancient Egyptian Religion
NMC 2045Y Islamic Philosophical Texts
NMC 2050Y Islamic Theology and Philosophy
NMC 2052H Islamic Religious Thought
NMC 2053Y Images of the Prophet Muhammad
NMC 2055H The Qur'an and its Interpretation
NMC 2056H Readings in Qur'an and Tafsir
NMC 2081H Anthropology of the Middle East

Research Methodology
NMC 2010Y Bibliographical Problems of Islamic Research
NMC 2030Y Problems of Translation from Primary Sources
NMC 2080Y Theory and Method in Middle Eastern Studies

Turkish and Ottoman Studies
NMC 2300Y Intensive Turkish I
NMC 2301Y Intensive Turkish II
NMC 2330Y Readings in Ottoman Historical Texts
NMC 2331Y Ottoman Palaeography and Diplomats
NMC 2340Y Studies in Ottoman and Turkish Literature

Other Courses
NMC 2000Y Directed Reading
NMC 2001Y Directed Reading and Research
RST 9999Y MA Thesis

Graduate Faculty

Full Members
Aksan, Virginia - BA, MA, MLS, PhD
Beaulieu, Paul-Alain - LLB, BA, MA, PhD (Associate Chair & Coordinator of Graduate Studies)
Davaiu, Michele - MTh, PhD
Fox, Harry - BSc, BA, MS, MA, PhD
Grzymski, Krysztof - MA, PhD
Guenther, Sebastian - MA, PhD
Harrak, Amir - MA, LTH, PhD
Harrison, Timothy - BA, MA, PhD
Kingston, Paul - BA, MA, MPH, DPhil
Lawson, Todd - BA, MA, PhD
Leprohon, Ronald - BA, PhD
Meacham, Tirzah - BA, MA, PhD
Metso, Sarianna - MA, PhD
Najman, Hindy - AB, MA, PhD
Newman, Judith - PhD
Northrup, Linda - BA, MA, PhD (Chair & Graduate Chair)
Ostapchuk, Victor - BA, PhD
Pouls Wegner, Mary-Ann - BA, PhD
Reilly, James - BA, MA, PhD
Ruehrdanz, Karin - SCD, PhD
Saleh, Walid - BA, MA, PhD
Subtelny, Maria - BA, PhD
Tavakoli-Targhi, Mohamad - BA, MA, PhD
Taylor, Glen - BA, MPH, MTh, PhD

Members Emeriti
Birnbaum, Eleazar - BA
Garshowitz, Libby - BA, MA, PhD
Golombek, Lisa - BA, MA, PhD
Holladay, Jr., John - BS, BD, DTh
Jwaideh, Albertine - BA, BLitt, MA, DPhil
Keall, Edward - BA, PhD
Lutz, R. Theodore - MA
Marmura, Michael - BA, MA, PhD
Pietersma, Albert - BA, BD, PhD
Sandier, Rivanne - BA, MA, PhD
Savory, Roger - MA, PhD
Sweet, Ronald - BA, MA, PhD
Wevers, John - BA, ThB, DTh

Associate Members
Emon, Anver - LLB, BA, LLM, MA, PhD
Fadel, Mohammad - BA, JD, PhD
Frayne, Douglas - BA, MA, PhD
Goeds, Katja - MA, DPhil
Green, Sharon - BA, MA, PhD
Hanssen, Jens - BPhil, DPhil
Holmstedt, Robert - BA, MA, PhD
Mason, Robert - BA, PhD
Mittermaier, Amira - MA, PhD
Raffaelli, Enrico - PhD
Reichel, Clemens - MA, PhD
Nursing Science

Faculty Affiliation
Nursing

Degree Programs Offered
Nursing Science – MN, Combined MHSc (Health Administration)/MN, PhD

Diploma Programs Offered
Nurse Practitioner - Post-Master's Nurse Practitioner (PMNP) Diploma

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aboriginal Health
   Nursing Science, MN, PhD
2. Addiction Studies
   Nursing Science, MN, PhD
3. Aging, Palliative and Supportive Care Across the Life Course
   Nursing Science, MN/MHSc, PhD
4. Bioethics
   Nursing Science, MN, MN/MHSc, PhD
5. Cardiovascular Science
   Nursing Science, MN, PhD
6. Community Development
   Nursing Science, MN
7. Ethnic and Pluralism Studies
   Nursing Science, MN, PhD
8. Health Care, Technology and Place
   Nursing Science, PhD
9. Health Services and Policy Research
   Nursing Science, MN, PhD
10. Women and Gender Studies
    Nursing Science, MN, MN/MHSc, PhD
11. Women's Health
    Nursing Science, MN, PhD

Overview
The Master of Nursing program prepares advanced nursing practitioners with specialized knowledge, skills, and expertise in a defined area of nursing to design programs and influence practice in that area. The program offers three fields of study:
1. Nursing administration
2. Clinical nursing
3. Nurse Practitioner

The Combined Master of Health Science (Health Administration)/Master of Nursing program provides an opportunity for students with a strong interest in both nursing and health administration to engage in an integrated and coherent program of study leading to the concurrent receipt of the MN and MHSc (Health Administration) degrees within 2.5 years of full-time study.

The Doctor of Philosophy program prepares scientists with the required analytical and research skills for the study of clinical or administrative nursing problems. Each student will choose to study in one of three research fields:
1. Nursing science of healthy individuals, families, and communities
2. Nursing science of individuals and families experiencing acute and chronic illness
3. Science of nursing administration

Contact and Address
Web: http://bloomberg.nursing.utoronto.ca
E-mail: inquiry.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

Degree Programs

Nursing Science

Master of Nursing

Minimum Admission Requirements
- 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 B standing in the next-to-final year.
- Applicants seeking admission to the Acute Care Nurse Practitioner field must also have two years of clinical experience.
- For further information about admissions, please contact the Graduate Department of Nursing Science.

Program Requirements
- To qualify for the degree, a student shall complete a program of study outlined by the Graduate Department of Nursing Science.
- Students are strongly encouraged to enrol on a full-time basis; however, a part-time option is available on a limited enrolment basis. Part-time students must be enrolled at minimum in two out of three sessions in each academic year. The program will normally be completed within two years of full-time study. All
requirements for the degree must be completed satisfactorily within six calendar years from the date of the student's first enrolment in the program.

- For the Nursing Administration and Clinical Nursing fields, the program requirement is 5.0 FCE, including a 1.0 FCE clinical course.
- For the Nurse Practitioner field, the program requirement is 5.5 FCE (including two clinical courses of 1.0 FCE each). This field of study is offered in both e-learning and campus-based formats.

Combined Master of Health Science (Health Administration)/Master of Nursing

Minimum Admission Requirements

- Admission to the combined program is conditional upon independent admission to each of the participating graduate units. Applicants will normally be required to complete separate application forms on a concurrent basis and pay the application fees for admission to the MN Program and the MHSc (Health Administration) Program. Students must satisfy the full requirements for each of the participating graduate units.
- The aggregate criteria listed below must be satisfied to ensure that an application is considered complete for the purpose of entry into the Combined MHSc/MN Program in Health Administration and Nursing Science. Applicants must:
  - be accepted under the general regulations of the School of Graduate Studies. Meeting the minimum requirements does not guarantee admission.
  - hold a University of Toronto BSc degree in nursing with B+ standing or better in the last two years of undergraduate study, or its equivalent from a recognized university. The student is expected to have good academic standing in non-nursing as well as nursing subjects.
  - have successfully completed an introductory course in statistics prior to admission.
  - have at least three years of work experience in the health care field.

Program Requirements

- Year 1 - students enrol in the Faculty of Nursing and complete 4.0 required full-course equivalents (FCE) for the MN degree.
- Year 2 - students enrol in the Department of Health Policy, Management and Evaluation (HPME) and complete 5.5 FCE towards the MHSc (Health Administration) degree plus 1.0 elective FCE that can be taken from either degree program.
- Year 3 – 1.0 FCE taken in HPME.

Doctor of Philosophy

Minimum Admission Requirements

- Applicants must normally have a master's degree in nursing with at least a B+ standing, or its equivalent from a recognized university.
- For further information about admissions, please contact the Graduate Department of Nursing Science. Deadline for applications is February 1.

Program Requirements

- The PhD program in nursing may be completed as a full-time program or a flexible-time program.

Full-time PhD Option

- The program of study includes a minimum of five courses, including NUR 1081Y PhD Student/Faculty Seminars, and a thesis.
- In order to qualify for the degree, a student shall complete a program of study approved by the Graduate Department of Nursing Science. The student's program will be planned in consultation with a supervisory committee. It will be designed to support the student's research and to provide depth and breadth in the area of study.
- An examination of the dissertation proposal is required, usually in the second year and no later than August 31 of the third year, at the completion of the minimum course work requirements. The student's dissertation will be defended in the departmental oral examination and the final oral examination of the School of Graduate Studies.
- All requirements for the degree must be completed satisfactorily within six calendar years from the date of the student's first enrolment in the PhD program.

Flexible-time PhD Option

- Applicants must indicate on the application form their preference for the flexible-time option. The admission, course, and degree requirements for the flexible-time option are identical to those listed for the full-time PhD program.
- The dissertation proposal is usually examined in the third year and no later than the fourth year.
- All requirements for the degree must be completed satisfactorily within eight years from the date of the student's first enrolment in the PhD program.

Nurse Practitioner

Post-Master's Nurse Practitioner Diploma

Minimum Admission Requirements

- 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. A signed preceptor agreement is required.
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.

Program Requirements
- All students in the Post-Master's NP Diploma program are required to complete a total of 3.5 FCE as follows:
  - NUR 1101H (Adult) OR NUR 1102H (Child) Advanced Health Assessment and Clinical Reasoning; course consists of 100 clinical hours.
  - NUR1100Y Pathophysiologic Concepts and Therapeutics
  - NUR1109Y Advanced Nursing Practice in Caring for Clients and Families I; course consists of 300 clinical hours
  - NUR1110Y Advanced Nursing Practice in Caring for Clients and Families II; course consists of 300 clinical hours
- During the final two courses of the program, learners are engaged in clinical practice.
- The program can be completed in one year on a full-time basis or in 20 months on a part-time basis. Part-time students must be enrolled in a minimum of two out of three sessions in each academic year.

Course List
NUR 1012H Culture and Relations
NUR 1014H The Politics of Aboriginal Health
NUR 1016H Health Systems, Policy, and the Profession
NUR 1017H History of Ideas in Nursing Practice
NUR 1021H Nursing Ethics
NUR 1022H Research Design, Appraisal, and Utilization
NUR 1023H Critical Issues in the Design and Conduct of Controlled Trials of Behavioural Health Care Interventions (For Ph.D. students only. Prerequisite: Introductory graduate course in research design and biostatistics. For students planning an RCT for their thesis research.)
NUR 1024H Foundations of Qualitative Inquiry
NUR 1025H Doing Qualitative Research: Design and Data Collection
NUR 1026H Evaluating Interventions in Clinical Settings (Prerequisites: Intermediate level statistics course (graduate level), basic knowledge of research design and methods, and advanced knowledge of statistical analyses.)
NUR 1028H Introduction to Qualitative Research: Methodologies, Appraisal and Knowledge Translation
NUR 1031H Technology and Place in Contemporary Health Care Work
NUR 1032H Group Process and Professional Practice
NUR 1034H Program Planning and Evaluation in Nursing
NUR 1035H Public and Population Health Perspectives
NUR 1036H Advanced Nursing Practice in Oncology
NUR 1037H Aging and Place: Social and Policy Transitions
NUR 1038H Theories and Methods in Global Inequalities of Health
NUR 1039H Women's Health Across the Lifespan
NUR 1040H Issues in Women's Health Care
NUR 1041H Caring for Children: Places, Programs and Caregivers
NUR 1042H Responses of Children and Families to Illness in Childhood
NUR 1043H Theories of Interpersonal Process
NUR 1044H “Thinking” About Children: Implications for Health Care Research, Practice and Policy
NUR 1045H Theories of Pain: Impact on the Individual, Family and Society
NUR 1046H Persistent Illness: Theoretical, Research and Practice Implications
NUR 1047H Community Participation and Health
NUR 1048H Politics of Health in the Community
NUR 1049H Nursing Approaches to Common Physiological and Behavioural Manifestations of Critically Ill Patients
NUR 1050H Coping With Illness
NUR 1051H Assessment and Management of Common Responses to Illness
NUR 1052H Perinatal Nursing Sciences
NUR 1056H Places, Programs, and People Who Provide Care
NUR 1057H Interventions to Enhance Health, Abilities and Well-being
NUR 1058H Aging, Gender and Equity
NUR 1059H Informatics: Theory and Application in Nursing
NUR 1060H Leadership and Management of Nursing and Health Services
NUR 1061H Patient Information Systems/Workload Measurement
NUR 1062H Measuring Nursing Care Effectiveness: Economic and Financial Perspectives
NUR 1064H Behaviour in Health Care Organizations
NUR 1066H Theoretical Basis for Methodology for Quality Improvement in Nursing Services
NUR 1067H Recovery-Oriented Mental Health Systems of Care
NUR 1068H Youth and Mental Health Promotion
NUR 1072Y Advanced Nursing Practice Scholarship
NUR 1073H Research in Health Informatics
NUR 1080H Theoretical Perspectives in Nursing Science (Required course for Ph.D. students only)
NUR 1081Y Ph.D. Student/Faculty Seminars
NUR 1082H Knowledge Production in Nursing and Health
NUR 1083H Comparative Politics of Health Policy in Globalizing World
NUR 1084H Essentials in Applied Statistics in Nursing
NUR 1085H Topics in Critical Perspectives in Health and Health Care
NUR 1086H Selected Topics in Nursing/Health Services Research Methods
NUR 1087H Foundations of Clinical Research
NUR 1090H Measuring Nursing Phenomena (Prerequisite: completion of an advanced graduate level statistics course)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>NUR 1100Y</td>
<td>Pathophysiologic Concepts and Therapeutics</td>
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<tr>
<td>NUR 1101H</td>
<td>Advanced Health Assessment and Clinical Reasoning (Adult) (Pre- or corequisite: NUR 1022H)</td>
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<tr>
<td>NUR 1102H</td>
<td>Advanced Health Assessment and Clinical Reasoning (Child) (Pre- or corequisite: NUR 1022H)</td>
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<tr>
<td>NUR 1109Y</td>
<td>Advanced Nursing Practice in Caring for Clients and Families I (Prerequisites: Successful completion of NUR 1017H, NUR 1022H, NUR 1101H or 1102H, NUR 1103H, and NUR 1104H)</td>
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<tr>
<td>NUR 1110Y</td>
<td>Advanced Nursing Practice in Caring for Clients and Families II (Credit/No Credit) (Prerequisite: NUR 1109Y, Pre- or corequisite: NUR 1034H)</td>
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<tr>
<td>NUR 1201H</td>
<td>Principles of Anesthesia Care</td>
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<td>NUR 1202H</td>
<td>Pain Management Across Clinical Settings: Theory, Research And Practice</td>
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<tr>
<td>NUR 1209H</td>
<td>Advanced Nursing Practice For Caring For Families Requiring Anesthesia I</td>
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<tr>
<td>NUR 1210H</td>
<td>Advanced Nursing Practice For Caring For Families Requiring Anesthesia II</td>
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</tbody>
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**Joint Courses**

- JNH 5001H  Health Care Settings, Site and Human Well Being
- JNH 5002H  The Body, Health Care, Technology and Place
- JPX 1001H  Parenting: Multidisciplinary Perspectives

**Graduate Faculty**

**Full Members**

- Angus, Janet - BScN, MSN, PhD
- Baruchel, Sylvain - BS, MD, MD
- Bierman, Arlene - MS, MD
- Chalmers, Beverley - PhD
- Cicutto, Lisa - BSN, PhD
- Clarke, Sean - MSN, PhD
- Corey, Paul - BSc, MA, PhD
- Coyte, Peter C - BA, MA, PhD
- Dennis, Cindy-Lee - PhD
- Doran, Diane - BA, PhD
- Dubrowski, Adam - BSc, MSc, PhD
- Esplen, Mary Jane - BScN, MSN, PhD
- Evans, Martin - BSc, MSc, MIA, PhD
- Gastaldo, Denise - BSN, MA, PhD
- Goering, Paula - BSc, MSc, PhD
- Hillan, Edith - MPH, MSc, PhD
- Hodnett, Ellen - BSN, PhD
- Howell, Doris - PhD
- Khanlou, Nazilla - BScN, MS, DPhil
- Kim, Young-In - MD
- Latham, Gary - BA, MS, PhD
- Leatt, Peggy - BSN, MHSA, PhD
- McDonald, Lynn - PhD
- McGillis, Linda - BHA, MS, PhD

**McGilton, Kathy - BScN, MN, PhD**

**McKeever, Patricia - BN, MSA, DPhil**

**Metcalfe, Kelly - BNSC, PhD**

**Muntaner, Carles - MHCSc, MD, PhD**

**Nelson, Sioban - PhD**

**O'Brien-Pallas, Linda-Lee - BSN, MSN, DPhil**

**Peter-Hardtke, Elizabeth - BA, BSN, MSN, PhD (Chair, Graduate Program & Associate Dean, Academic Programs)**

**Sidani, Souraya - TD, BS, MS, PhD**

**Singer, Peter - MPH, MD**

**Stevens, Bonnie - BSc, MSN, DPhil**

**Streiner, David - PhD**

**Tourangeau, Ann - PhD**

**Zakus, David - BS, MES, MSc, PhD**

**Members Emeriti**

- Donner, Gail - PhD
- Gallop, Ruth - BSN, MSN, PhD
- Pringle, Dorothy - BScN, MS, PhD
- Watt-Watson, Judith - BSN, MSN, DPhil

**Associate Members**

- Armson, Anthony - BSc, MSc, MD
- Ballantyne, Marilyn - MHCSc
- Beduz, Mary Agnes - MN
- Belford, Linda - BSN
- Birn, Anne-Emanuella - BA, MA, DSc
- Bouts, Kathy - MD
- Brewster, Joan - BA, MA, PhD
- Chambon, Adrienne - BA, PhD
- Chau, Tom - PhD
- Chavez, Wilfrida - MHCSc
- Cooper, Angela - PhD
- Cummings, Greta - BNSC, MEd, PhD
- Davies, Barbara - BScN, MSN, PhD
- Diamond, Timothy - BPhil, MA, PhD
- Drake, James - BSE, MSc, MBChB
- Edwards, Geoffrey - PhD
- Galloway, Susan - BSN
- Greenberg, Mark - LMCC, MD, MBChB
- Hardle, Catherine - BSN, MSN, EdD
- Hutchison, Jamie - MD
- Jackson, Suzanne - BSc, MSc, PhD
- Katz, Stephen - DPhil
- Kaufman, Karyn - BSN, BS, PhD
- Lee, Ruth - BSN, MSN
- Lester, Charlene - BScN, MN
- Macdonald, Geraldine - BSN, MEd, EdD
- Mccay, Elizabeth - MSN, PhD
- McGillion, Michael - PhD
- Menzies, Peter - MSW
- Messner, Hans - MD, PhD
- Mitchell, Gail - BSN, MSN
- Mykhalovskiy, Eric - BA, MA, PhD
- Nagle, Lynn - BN, MN, PhD
- Regehr, Glenn - BA, PhD
- Rose, Rebecca Louise - BN, MN, PhD
- Rourke, Sean - BSc, BA, PhD
- Rourke, Sean - BSc, BA, PhD
- Ruddick, Susan - PhD
Rudge, Trudy - PhD
Smadu, Marlene - BScN, MEd, EdD
Stremler, Robyn - PhD
Wynn, Francine - BA, MA, PhD  *(Coordinator of Graduate Studies)*
Zabjek, Karl - BSc, MCLSC, PhD
Nutritional Sciences

Faculty Affiliation
Medicine

Degree Programs Offered
Nutritional Sciences – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aboriginal Health
   • Nutritional Sciences, MSc, PhD
2. Biomedical Toxicology
   • Nutritional Sciences, MSc, PhD
3. Women's Health
   • Nutritional Sciences, MSc, PhD

Overview
The Department of Nutritional Sciences offers advanced studies leading to the Master of Science and Doctor of Philosophy degrees in the basic science, clinical, and community aspects of human nutrition. Research projects range from the molecular to the community level of inquiry. Applicants with appropriate preparation in health sciences will be admitted under the general regulations of the School of Graduate Studies.

Applicants interested in pursuing a Master of Health Science degree in the area of Community Nutrition or a Master of Science in Community Health degree in the area of Public Health Nutrition are advised to consult the calendar entry for the Department of Public Health Sciences for details.

Contact and Address
Web: www.utoronto.ca/nutrisci
E-mail: grad.nutrisci@utoronto.ca
Telephone: (416) 978-6071
Fax: (416) 978-5882

Department of Nutritional Sciences
Room 316, FitzGerald Building
150 College Street
University of Toronto
Toronto, Ontario M5S 3E2
Canada

Degree Programs

Nutritional Sciences

Master of Science

Minimum Admission Requirements
• Applicants are admitted under the general regulations of the School of Graduate Studies. Students with diverse backgrounds are encouraged to apply.
• A- standing in the final two years of a bachelor's degree program or evidence of strong potential as a researcher.

Program Requirements
• Minimum program length for full-time students is 12 months. A limited number of students are admitted to the MSc program on a part-time basis.
• Students participate in NFS1204Y Master's Seminars in Nutritional Sciences throughout their period of full-time registration and complete a minimum of two half-courses.
• 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.

Doctor of Philosophy

Minimum Admission Requirements
• Applicants may enter the PhD program in one of two ways:
  o Directly from a bachelor's degree if their background is deemed appropriate and they have an A- or better average in their final two years.
  o With an appropriate MSc degree with at least an A- standing or evidence of strong potential as a researcher. Exceptional students may be allowed to reclassify into the PhD program after one year without completing the MSc on the recommendation of an advisory committee and successful completion of a reclassification examination.

Program Requirements
• The residence requirement for students admitted with a bachelor's degree is three years; for students admitted with a master's degree is two years.
• It is expected that students from either background can complete their PhD in a period of four years of full-time study, research, and thesis preparation; however, some students may require longer.
• Students participate in NFS 1304Y Doctoral Seminars in Nutritional Sciences.
• Students entering with a bachelor’s degree will also complete a minimum of six half-courses; those entering with an MSc degree, a minimum of four half-courses. The courses will be chosen by each student to provide an appropriate background for his or her area of investigation. It is expected that all students will have an adequate knowledge of research design and statistics through course work 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 comprehensive examination in nutritional sciences.
• Thesis.
• Student must pass the departmental examination before proceeding to the final oral examination.

Course List
Not all courses are offered every year. Please consult the Department regarding course offerings.

- NFS 1201H Public Health Nutrition
- NFS 1204Y Master’s Seminars in Nutritional Sciences (Credit/No Credit)
- NFS 1208H Field Observation and Nutrition Program Laboratory I
- NFS 1209H Field Observation and Nutrition Program Laboratory II (Credit/No Credit)
- NFS 1210H Field Observation and Program Laboratory III: Management of Community Food Programs
- NFS 1211H Community Nutrition
- NFS 1212H Regulation of Food Safety
- NFS 1216H Selected Topics Nutrition
- NFS 1218H Recent Advances in Nutritional Sciences I
- NFS 1219H Recent Advances in Nutritional Sciences II: Diet and Cancer
- NFS 1220H Clinical Nutrition
- NFS 1221H Nutrition Programs and Strategies
- NFS 1222H Recent Advances in Nutritional Sciences II: Diet and Cardiovascular
- NFS 1223H Dietary Carbohydrate and Glycaemic Index in Health and Disease
- NFS 1224H Nutritional Epidemiology
- NFS 1225H Nutrition and Metabolism for Public Health Nutrition Professionals
- NFS 1301H Directed Reading in Nutritional Sciences
- NFS 1304Y Doctoral Seminars in Nutritional Sciences (Credit/No Credit)
- NFS 1484H Advanced Nutrition

*Courses which may continue over a program. The course is graded when completed.

Graduate Faculty

Full Members
Allard, Johane - MD
Anderson, Gerald - BSc, MSc, PhD
Archer, Michael - MA, MSc, PhD, DSc
Bazinet, Richard - BSc, PhD
Boyd, Norman - MD
El-Sohemy, Ahmed - BSc, MSc, PhD
Eyssen, Gail - BSc, MSc, MSc, PhD
Greenwood, Carol - BSc, MSc, PhD
Hanley, Anthony - BSc, MSc, PhD (Graduate Coordinator, Admissions & Awards)
Jenkins, David Ja - BA, MA, MD, MB, BS, PhD
Kim, Young-In - MD
Kreiger, Nancy - BA, MPH, PhD
Leiter, Lawrence Alan - BSc, MD
Munro, Ian - BSc, MSc, PhD
Narod, Steven - BSc, MD
O’Connor, Deborah - BASc, MS, PhD
Pencharz, Paul - MD, MB, CHB
Sellen, Daniel - BA, AM, PhD
Tarasuk, Valerie - BA, BEd, BASc, MSc, PhD
Vieth, Reinhold - BSc, MSc, PhD
Vuksan, Vladimir - BSc, MSc, PhD
Ward, Wendy - BASc, MSc, PhD (Graduate Coordinator, Student Affairs)
Wolever, Thomas - BA, MSc, MA, BM, BCH, PhD
Zlotkin, Stanley - BASc, MD, PhD

Members Emeriti
Beaton, George - BA, MA, PhD
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

Associate Members
Ball, Ronald - BSc, MSc, PhD
Cohn, Tony - MBChB
Comelli, Elena - MSc, PhD
Darling, Pauline - BSc, MSc, PhD
Fox, Ann - BAA, MHSc, PhD
Josse, Robert - BSc, MBBS
Keith, Mary - BASc, PhD
Levitt, Anthony - MBBS, DGo, MB
Yeung, David - BA, MA, PhD

Nutritional Sciences 330
Occupational Science and Occupational Therapy

Faculty Affiliation
Medicine

Degree Programs Offered
Occupational Science and Occupational Therapy – MScOT

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Women’s Health
   • Occupational Science and Occupational Therapy, MScOT

Overview
The Master of Science in Occupational Therapy 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:
1. practice 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,
2. supervise rehabilitation assistants, OT aides, or other support workers,
3. use principles of research-based practice to guide and evaluate service delivery,
4. contribute to research that will advance the knowledge base of the discipline,
5. assume management roles,
6. take leadership roles in the profession,
7. take leadership roles in health care and other sectors including social services, education, and labour,
8. fill academic-practitioner positions, and
9. pursue doctoral studies and careers in academia or clinical research.

Contact and Address
Web: www.ot.utoronto.ca/
E-mail: ot.reception@utoronto.ca
Telephone: (416) 978-2765
Fax: (416) 946-8570

Department of Occupational Science and Occupational Therapy
University of Toronto
160-500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Degree Programs
Occupational Science and Occupational Therapy

Master of Science in Occupational Therapy

Minimum Admission Requirements
- Four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, with a minimum mid-B average in the final year. The department will review the last 10 full-course equivalents completed at the undergraduate level by the application deadline.
- Apply ONLINE using the Ontario Rehabilitation Sciences Programs Application Service (ORPAS) at <www.ouac.on.ca/orpas/>. Applications are accepted approximately mid-October each year.
- 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 facility by the end of April. See Basic English Facility Requirements 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
  o 250 on the computer-based test, accompanied by a minimum score of 5 on the Test of Written English
  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.
Program Requirements

- The MScOT is a two-year, 24-course (18 full-course equivalent (FCE)) program of continuous 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.

Course List

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<td>OCT 1123H</td>
<td>Framing Practice-Based Research</td>
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<tr>
<td>OCT 1141H</td>
<td>Assessment in Occupational Therapy</td>
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<td>OCT 1152Y</td>
<td>Musculoskeletal Structure and Function</td>
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<td>Psychosocial Perspectives in Occupational Therapy</td>
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<td>Neuro-motor/Neuro-cognitive Perspectives in Occupational Therapy</td>
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<td>OCT 1190Y</td>
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<td>OCT 1220Y</td>
<td>Graduate Research Project (1.5 FCE)</td>
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<tr>
<td>OCT 1251H</td>
<td>Enabling Occupation with Children: Part I</td>
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<td>OCT 1252H</td>
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<td>OCT 1261H</td>
<td>Enabling Occupation with Adults: Part I</td>
</tr>
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<td>OCT 1262Y</td>
<td>Enabling Occupation with Adults: Part II</td>
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<tr>
<td>OCT 1271H</td>
<td>Enabling Occupation with Older Adults: Part I</td>
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<tr>
<td>OCT 1272H</td>
<td>Enabling Occupation with Older Adults: Part II</td>
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<tr>
<td>OCT 1281Y</td>
<td>Occupational Therapy Fieldwork II</td>
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<tr>
<td>OCT 1282Y</td>
<td>Occupational Therapy Fieldwork III</td>
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<tr>
<td>OCT 1283Y</td>
<td>Occupational Therapy Fieldwork IV</td>
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</tbody>
</table>

Graduate Faculty

Full Members

Agur, Anne - BSc, MSc, PhD
Carnahan, Heather - BPHE, MSc, PhD
Carswell, Anne - DIP(OT), BSc(OT), MSc, PhD
Colantonio, Angela - BA, BSc(OT), MHSc, PhD
Dawson, Deirdre - BSc, MSc, PhD
Friehfeld, Sharon - BSc(OT), MA, PhD
Iwama, Michael - BSc(OT), BSc, MSc, PhD
Kirsh, Bonnie - BSc(OT), MEd, PhD
Mihailidis, Alex - BASc, MASc, PhD
Polatajko-Howell, Helene - PhD
Rappolt, Susan - BSc(OT), MSc, PhD (Chair & Graduate Chair)
Reid, Denise - BSc(OT), MEd, PhD
Renwick, Rebecca - DIP(OT), BA, PhD

Members Emeriti

Friedland, Judith - BA, MA, PhD

Associate Members

Barker, Donna - BSc(OT), MSc
Beaton, Dorcas - BSc(OT), MSc, PhD
Cameron, Debra - BSc(OT), MEd, PhD
Cameron, Jill - BS, MS, PhD
Campbell, Kent - BSc, PhD
Cockburn, Lynn - BSc(OT), BCOM, MEd, MPH
Farrow, Susan - BSc(OT), BA
Fourt, Anne - BSc(OT), MEd
Hebert, Debbie - BSc(OT), MSc
Kaightley, Michelle - BSc, MA, PhD
Langlois, Sylvia - BSc, MSc
McKee, Patricia - DIP(OT), BSc(OT), MSc
Rigby, Patty - DIP(OT), MHSc
Secker, Barbara - BA, AM, PhD
Stack, Rachel - BSc, MCLSC
Stier, Jill - MA, BMEDSC (Coordinator of Graduate Studies)
Trentham, Barry - BSc(OT), MES

Courses which may continue over a program. The course is graded when completed.
+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Pharmaceutical Sciences

Faculty Affiliation
Pharmacy

Degree Programs Offered
Pharmaceutical Sciences – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Pharmaceutical Sciences, MSc, PhD
2. Aging, Palliative and Supportive Care Across the Life Course
   • Pharmaceutical Sciences, MSc, PhD
3. Biomedical Engineering
   • Pharmaceutical Sciences MSc, PhD
4. Biomedical Toxicology
   • Pharmaceutical Sciences, MSc, PhD
5. Cardiovascular Sciences
   • Pharmaceutical Science, MSc, PhD
6. Global Health
   • Pharmaceutical Sciences, PhD
7. Health Care, Technology and Place
   • Pharmaceutical Sciences, PhD
8. Health Services and Policy Research
   • Pharmaceutical Sciences, MSc, PhD
9. Neuroscience
   • Pharmaceutical Sciences, MSc, PhD

Overview
The Department of Pharmaceutical Sciences offers graduate programs leading to the Master of Science and Doctor of Philosophy degrees. The Department offers research opportunities and courses in three principal areas:
1. Molecular Pharmacology and Toxicology: drug receptor interactions, molecular biology, electrophysiology, biochemistry, clinical, adverse drug reactions, and drug metabolism
2. Pharmaceutics and Pharmacokinetics: pharmaceutical and medicinal chemistry, pharmaceutical formulations, radiopharmaceutical synthesis, drug discovery, biophysical chemistry, basic pharmacokinetics and clinical research
3. Clinical, Social and Administrative Pharmaceutical Sciences: clinical and pharmacy practice, sociology of health, social psychology, health policy, and health economics

Contact and Address
Web: pharmacy.utoronto.ca/graduate
E-mail: pharm.sci@utoronto.ca
Telephone: (416) 978-2179
Fax: (416) 978-8511

Degree Programs
Pharmaceutical Sciences

Master of Science

Minimum Admission Requirements

Full-Time MSc
• Four-year University of Toronto BSc degree or its equivalent 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 are required to write the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  o paper-based TOEFL: 600 and 5 on the TWE
  o computer-based TOEFL: 250 and 5 on the essay rating component.
  o 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 U.S. university, the applicant must write and achieve scores at the 50th percentile ranking or better on the Graduate Record Examination (GRE—General Test).

Part-Time MSc
• A limited number of students will be admitted to the MSc program on a part-time basis. All admission requirements are the same as for the full-time MSc.

Graduate Department of Pharmaceutical Sciences
Leslie Dan Faculty of Pharmacy
University of Toronto
144 College Street
Toronto, Ontario M5S 3M2
Canada

Program Requirements

Full-Time MSc
- 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.
- The student normally completes two full-course equivalents (FCE), but a minimum of one FCE is required.
- Yearly advisory committee meetings.
- One poster presentation given to all faculty and graduate students at Graduate Research in Progress (GRIP), and yearly attendance at GRIP and Post-GRIP.
- Regular attendance at Pharmaceutical Sciences departmental seminars.
- An oral presentation of own research work is given within 12-24 months of beginning the program (pending final approval at press time).
- Final seminar to be given during the thesis defence.
- A thesis based on an approved research problem in a field of pharmaceutical sciences.

Part-Time MSc
- All requirements are the same as for the MSc full-time program, except for the short research presentation and attendance at Graduate Research in Progress (GRIP). A poster presentation at GRIP is required every other year during enrolment.

Doctor of Philosophy

Minimum Admission Requirements

Full-Time PhD
- Appropriate University of Toronto MSc degree, or its equivalent from a recognized university, with a minimum overall B+ average.
- Under exceptional circumstances, students may be admitted directly to the PhD program with a four-year BSc degree or its equivalent. Factors considered include academic standing, ability to conduct research, and availability of financial support from the potential supervisor.
- 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 TWE
  - computer-based TOEFL: 250 and 5 on the essay rating component.
  - 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 U.S. 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 transfer from the MSc program to the PhD program occurs normally within 15 months of the student’s first registration in the MSc program.

Flexible-Time PhD
- 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.
- 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, and
  - hold a university appointment in Canada at an academic standard equivalent to the University of Toronto Lecturer.

Program Requirements

Full-Time PhD
- 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. Students normally complete 2.0 FCEs. Students admitted directly to the PhD program with a BSc must complete 3.0 FCEs.
- Yearly advisory committee meetings.
- A qualifying examination.
- Two short research presentations to all faculty and graduate students at Graduate Research in Progress (GRIP), annual attendance at GRIP and Post-GRIP, and an exit full-length research seminar to be given before the thesis defence.
• Regular attendance at Pharmaceutical Sciences departmental seminars (a minimum of at least eight seminars in each academic year - pending final approval at press time).
• In addition to the departmental exit seminar held within three months of the final thesis defence, all PhD students are required to give an oral research presentation of approximately 20-30 minutes every year after the first 12 months of registration in the program.
• A thesis in conformity with the University regulations, based on research conducted while registered in a PhD program at the University of Toronto.
• Students are required to be on campus and participating full-time (including summer) until all program requirements are completed. Simultaneous registration in another full-time degree program is not allowed. Course work should normally be completed within the first three (pending final approval at press time) years of registration.

Transfer from MSc to PhD
• 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.

Flexible-Time PhD
• The program requirements for the flexible-time PhD option are identical to the requirements for the full-time PhD program, except students in the flexible-time PhD program must complete a minimum of at least four seminars in each academic year (pending final approval at press time).
• The time limit for completion of the flexible-time PhD program option from first registration in the program is eight years for students with a master's degree and nine years for students with a bachelor's degree. Students must ensure that they have adequate time on campus to attend classes and to fulfill the academic requirements.
• Full-time registration is required for the first four years for those entering the program with a master's degree; five years for those with a bachelor's degree. Thereafter, students may register part-time.

Course List
Please consult the Department's timetable for courses offered in a given year.

PHM 1107H Advanced Pharmacokinetics Course I
PHM 1108H Advanced Pharmacokinetics Course II
PHM 1109H Recent Developments in Dosage Form Design (prerequisite PHM 224Y or equivalent)

• Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

PHM 1110H Chemical Basis of Drug Metabolism
PHM 1111H Research and Statistical Analytical Methods
PHM 1114H Special Topics in Radiopharmaceuticals I
PHM 1115H Special Topics in Radiopharmaceuticals II
PHM 1117H DNA-Drug Interactions
PHM 1118H Drug Utilization: Patterns, Outcomes, and Issues in Drug Use Evaluation
PHM 1120H+ Selected Research Topics in the Pharmaceutical Sciences
PHM 1122H Fundamentals of Drug Discovery
PHM 1123H Thermodynamics of Macro-molecular Interactions
PHM 1124H The Power and Politics of Global Pharmaceutical Policy
PHM 1125H Complementary/Alternative Medicine: Health Systems and Policy Issues
PHM 1126H The Economics of Health and Health Care
PHM 1127Y Biomolecular Interactions and Thermodynamics
JFK 1120H Selected Topics in Drug Development I
JFK 1121H Selected Topics in Drug Development II
JFK 1122H Drug Transport Across Biological Membranes
JNP 1014Y Interdisciplinary Toxicology
JNP 1016H Graduate Seminar in Toxicology
JNP 1017H+ Current Topics in Molecular and Biochemical Toxicology
JNP 1018H+ Molecular and Biochemical Basis of Toxicology
JPY 1007Y Neuropharmacology of Neurotransmitter Receptors
JRX 1124H Structure-Based Drug Design
PAS 3700H Multidisciplinary Aspects of Addictions
PPG 2010H Panel Data Methods for Public Policy Analysis

Graduate Faculty

Full Members
Allen, Christine - BSc, PhD, PhD
Angers, Stephane - BSc, PhD
Austin, Zabin - BA, BScPhm, MBA, MSt, MEd, PhD
Bendayan, Reina - DP (Associate Dean, Graduate Education)
Boon, Heather - PhD
Bowen, Barry - BScPhm, MScPhm
Busto, Usanda - BSc, DP
Chalikian, Tigran - PhD
Cheng, Yu-Ling - SB, PhD
Crandall, Ian - BSc, MSc, PhD
Einarson, Thomas - BScPhm, MSc, MPharm, MEd, PhD
Gariepy, Jean - BSc, PhD
Giaever, Guri - BS, PhD
Grant, Denis - BSc, PhD
Grootendorst, Paul - BA, MEC, PhD
Hampson, David - PhD
Heerklotz, Heiko - PhD
Henderson, Jeffrey - PhD

Pharmaceutical Sciences 335
Hindmarsh, K Wayne - BSP, MSc, PhD
Holbrook, Anne - BScPhm, MSc, MD, DP
Ito, Shinya - MD, BM
Kelley, Shana - BA, PhD
Kohler, Jillian - BA, MA, PhD
Koren, Gideon - MD
Kotra, Lakshmi - BSc, PhD
Krahn, Murray - BA, MSc, MD
Lee, Ping - BSCHE, PhD (Coordinator of Graduate Studies)
Macgregor, Robert - BS, PhD
MacKeigan, Linda - BScPhm, PhD
Mann, Henry - PharmD (Dean)
Muzzin, Linda - BA, MA, MPSY, PhD
Pang, K Sandy - BSc, PhD
Pennefather, Peter - BSc, PhD
Piquette-Miller, Micheline - BScPhm, PhD
Reilly, Raymond - BSc, BSc, MSc, PhD
Saville, Bradley - BSc, PhD
Spino, Michael - BScPhm, DP
Sproule, Beth - BScPhm, DP
Taddio, Anna - BScPhm, MScPhm, PhD
Uetrecht, Jack - BSc, MSc, MD, PhD
Walker, Scott - BScPhm, MScPhm
Wells, James - BSc, MSc, PhD
Wells, Peter - BScPhm, DP
Wu, Xiao Yu - PhD
Zheng, Gang - MSc, PhD

Members Emeriti
Marshman, Joan - BScPhm, MSc, PhD
Nairn, John - BScPhm, PhD
O'Brien, Peter John - BSc, MSc, PhD

Associate Members
Bajcar, Jana - BSc, MSc, MSc
Cadarette, Suzanne - BSc, MSc, PhD
Cummins, Carolyn - BSc, PhD
Hardy, Brian - BSc, BSP, DP
Papadimitroupolos, Emmanuel - BSc, BSP, MScPhm, PhD
Thompson, Alison - BA, MA, PhD
Walker, Sandra - BSc, BScPhm, DP
Pharmacology and Toxicology

Faculty Affiliation
Medicine

Degree Programs Offered
Pharmacology – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Pharmacology, MSc, PhD
2. Biomedical Toxicology
   • Pharmacology, MSc, PhD
3. Cardiovascular Sciences
   • Pharmacology, MSc, PhD
4. Neuroscience
   • Pharmacology, MSc, PhD
5. Women’s Health
   • Pharmacology, MSc, PhD

Overview
The Department of Pharmacology and Toxicology offers graduate programs leading to the degrees of Master of Science and Doctor of Philosophy in Pharmacology. Faculty 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

All MSc and PhD students are expected to undertake self-directed study and to demonstrate proficiency in pharmacological principles throughout the course of their graduate program.

Contact and Address:
Web: www.pharmtox.utoronto.ca/
E-mail: pharmtox.dept@utoronto.ca
Telephone: (416) 978-5244
Fax: (416) 978-6395

Degree Programs
Pharmacology

Master of Science

Minimum Admission Requirements
• Appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, with a minimum B+ average in the final year of the undergraduate program.
• Applicants are normally required to have taken courses in physiology, biochemistry, or allied sciences sufficient to form a foundation for their work in pharmacology.
• 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 Requirements
• 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.
• PCL 1002Y Graduate Pharmacology. 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.

Doctor of Philosophy

Minimum Admission Requirements
• Appropriate University of Toronto MSc degree, or its equivalent from a recognized university, with a minimum B+ average in master's courses
• Applicants are normally required to have taken courses in physiology, biochemistry, or allied 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.

• Well qualified students with excellent research potential holding an appropriate bachelor’s degree may be considered for direct admission to the PhD program. These applicants must have achieved a minimum final year average of A-.

• Applicants 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.

• 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.

• All successful applicants are responsible for obtaining research supervision and financial support before they are permitted to officially register in their program.

Program Requirements

• Minimum period of two full years 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.

• PCL 1002Y Graduate Pharmacology (major subject), PCL 1003Y* Seminars in Pharmacology (Credit/No Credit course), 1.0 additional FCE (minor subject), and any other courses advised by the Graduate Education Committee. The student's advisory committee should help the student determine the minor course.

• Pharmacology graduate faculty members also offer a variety of laboratory-based and tutorial-based learning modules to provide breadth to the student's training experience beyond their particular areas of research focus. During their program, PhD students are required to choose five breadth modules from among available options, at least one of which must be a laboratory module and one a tutorial module. 0.5 FCE from outside the student's research area may substitute for one of the five breadth modules. The student's advisory committee will assist the student in choosing suitable modules.

• As part of the course requirement for PCL 1003Y* Seminars in Pharmacology, the student must present thesis material in seminars to the Department on two occasions, one of which will take place between two and six months prior to the departmental final oral examination.

• Each student will participate in a research program and present the results of the investigation as a written thesis. The thesis must be orally defended to the satisfaction of a thesis examination committee.

• PhD students in other departments who desire to take a minor in pharmacology will be permitted to take one of the listed courses depending on their previous training and space availability in the course.

Course List

The Department should be consulted each session as to course offerings. Students may also find up-to-date course information on the departmental Web site: www.pharmtox.utoronto.ca/programs/grad/courses.htm.

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<th>Course Title</th>
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<td>Systems Pharmacology</td>
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<tr>
<td>PCL 1002Y</td>
<td>Graduate Pharmacology</td>
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<td>PCL 1003Y*</td>
<td>Seminars in Pharmacology (Credit/No Credit)</td>
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<tr>
<td>PCL 1004Y</td>
<td>Clinical Pharmacology</td>
</tr>
<tr>
<td>PCL 1012H</td>
<td>Cognitive Neuropharmacology</td>
</tr>
<tr>
<td>JFK 1120H</td>
<td>Selected Topics in Drug Development I</td>
</tr>
<tr>
<td>JFK 1121H</td>
<td>Selected Topics in Drug Development II</td>
</tr>
<tr>
<td>JFK 1122H</td>
<td>Drug Transport Across Biological Membranes</td>
</tr>
<tr>
<td>JNP 1014Y</td>
<td>Interdisciplinary Toxicology</td>
</tr>
<tr>
<td>JNP 1016H</td>
<td>Graduate Seminar in Toxicology</td>
</tr>
<tr>
<td>JNP 1017H+</td>
<td>Molecular and Biochemical Basis of Toxicology</td>
</tr>
<tr>
<td>JNP 1018H+</td>
<td>Current Topics in Molecular and Biochemical Toxicology</td>
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<tr>
<td>JNR 1444Y</td>
<td>Fundamentals of Neuroscience: Cellular and Molecular</td>
</tr>
<tr>
<td>JPM 1005Y</td>
<td>Behavioural Pharmacology</td>
</tr>
<tr>
<td>JPY 1007Y</td>
<td>Neuropharmacology of Neurotransmitter Receptors</td>
</tr>
<tr>
<td>JYG 1555H</td>
<td>Topics in Cellular and Molecular Neurobiology</td>
</tr>
</tbody>
</table>

Graduate Faculty

Full Members
Busto, Usanda - BSc, DP
Dorian, Paul - MSc, MDCH
George, Susan - MD
Grant, Denis - BSc, PhD (Chair & Graduate Chair)
Grupp, Larry - DSc
Hampson, David - PhD
Harper, Patricia - PhD
Ito, Shinya - MD, BM
Kish, Stephen John - BSc, MSc, PhD

*Courses which may continue over a program. The course is graded when completed.
+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Degree Programs by Graduate Unit

Pharmacology and Toxicology

Koren, Gideon - MD
Lanctot, Krista - MSc, PhD
Le, Dzung - PhD
Li, Peter Pun - BSc, MSc, PhD
MacDonald, John - BSc, PhD
Milgram, Norton - BSc, MSc, PhD
Mitchell, Jane - BSc, PhD
Moore, Malcolm - MD
Naranjo, Claudio - MD
Nobrega, Jose - PhD
O'dowd, Brian - PhD
Pang, K Sandy - BSc, PhD
Parker, John - BA, MD
Pennefather, Peter - BSc, PhD
Petronis, Arturas - MD
Piquette-Miller, Micheline - BScPhm, PhD
Riddick, David - BSc, PhD (Coordinator of Graduate Studies)
Schimmer, Bernard - BS, PhD
Semple, John Wesley - PhD
Snead III, Carter - BS, MD, MD
Tomkins, Denise - PhD
Tyndale, Rachel - PhD
Uetrecht, Jack - BSc, MSc, MD, PhD
Warsh, Jerry - MD
Wells, James - BSc, MSc, PhD
Wells, Peter - BScPhm, DP
Wong, Albert - MD, PhD

Members Emeriti
Burnham, Willets - PhD
Endrenyi, Laszlo - PhD
Goldenberg, Gerald Joseph - MD
Heersche, Johannes - BSc, PhD
Inaba, Tadanobu - BEng, MSc, PhD
Kadar, Dezso - BSc, MSc, PhD
Kalant, Harold - BSc, MD, PhD
O'Brien, Peter John - BSc, MSc, PhD
Okey, Allan - BSc, MSc, PhD
Pace-Asciak, Cecil - PhD
Seeman, Philip - BSc, MSc, MDCH, PhD
Sellers, Edward - MD, PhD

Associate Members
Laposa, Rebecca - PhD
Le Foll, Bernard - DRMED
Matthews, Jason - PhD
McPherson, J. Peter - MSc, PhD
Meyer, Jeffrey - MD
Park, Hee-Won - DVSM, MSc, DCHEM
Salahpour, Ali - PhD
Woodland, Cindy - PhD
Zack, Martin - PhD
Degree Programs by Graduate Unit

Philosophy

Faculty Affiliation
Arts and Science

Degree Programs Offered
Philosophy - MA, PhD, Combined JD/PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Ancient and Medieval Philosophy
   • Philosophy, PhD
2. Bioethics
   • Philosophy, MA, PhD
3. Editing Medieval Texts
   • Philosophy, PhD
4. Environmental Studies
   • Philosophy, MA, PhD
5. Jewish Studies
   • Philosophy, MA, PhD
6. Sexual Diversity Studies
   • Philosophy, MA, PhD
7. Women and Gender Studies
   • Philosophy, MA, PhD

Overview
The Department of Philosophy offers two degree programs - Master of Arts and Doctor of Philosophy - as well as a combined program - Combined Juris Doctor/Doctor of Philosophy program - which enables students to pursue work at the intersection of philosophy and law and to complete both the PhD and the Juris Doctor programs in a shorter time than it would take to complete the degrees separately.

Applicants should consult the department’s Web page (www.philosophy.utoronto.ca) for complete details of graduate programs, course offerings, and short academic profiles of the graduate faculty.

Contact and Address
Web: www.philosophy.utoronto.ca
E-mail: phildept@chass.utoronto.ca
Telephone: (416) 978-3312
Fax: (416) 978-8703

Department of Philosophy
University of Toronto
Jackman Humanities Building (JHB)
Fourth floor, 170 St. George Street
Toronto, Ontario M5R 2M8
Canada

Degree Programs

Philosophy

Master of Arts

At press time, program requirements for the MA program were pending final approval.

Minimum Admission Requirements
• Students are admitted under the general regulations of the School of Graduate Studies. Admission requires a four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, that includes 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 of at least an A- in the applicant's philosophy courses. Students lacking an adequate background in philosophy may be required to complete additional undergraduate courses before being considered for admission. In certain cases, an applicant whose background in philosophy is deficient may be admitted to the MA program but may be required to take one or two additional courses, possibly at the undergraduate level.
• Applicants must submit the following supporting documents with their applications:
  o One official transcript of the applicant’s academic record from each university attended, complete to the time of application.
  o A statement of about 300 words, indicating the applicant’s areas of interest in philosophy at the graduate level.
  o Two letters of reference from philosophy instructors, written on the appropriate forms.
  o One sample of the applicant’s written work in philosophy (written in English or French); e.g., a term paper, not exceeding 20 pages. It should be as recent as possible and should provide evidence of ability to study philosophy at an advanced level.
  o 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:
    o Paper-based TOEFL exam: 600 and 5 on the TWE
    o Computer-based TOEFL exam: 250 and 5 on the essay rating component
    o 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 facility are acceptable.
• The submission deadline for all applications and supporting documents is January 7.
Program Requirements
- The program consists of a minimum of 4.0 full-course equivalents (FCE) in philosophy. At least 1.0 FCE must be in the history of philosophy and at least 1.0 FCE must be in the problems of philosophy. In the first session and again in the second, one graduate half-course will be designated for MA students only. All full-time MA students will be required to take these courses. (One will be in the broad area of ethics/politics and the other in the broad area of M&E. Either could be historical.)
- 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 FCE during the fall and winter sessions and to complete the last course during the summer session.
- Part-time enrolment in the MA program is permitted; the requirements for the degree must be completed within five academic years.

Doctor of Philosophy

Minimum Admission Requirements
- Students approved by the department are admitted under the general regulations of the School of Graduate Studies via one of two routes:
  - From a bachelor’s degree. A four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university, that includes a strong background in philosophy (roughly equivalent to an undergraduate major), that includes at least 6.0 full-course equivalents (FCE) in philosophy, 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 philosophy courses.
  - From a master’s degree. A University of Toronto master’s degree in philosophy, or its equivalent 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.

PhD applicants are required to submit the results of the Graduate Record Exam (GRE) taken within the preceding 18 months. If this requirement would impose an undue burden on an overseas applicant, it can be waived at the discretion of the Graduate Coordinator.
- 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 Graduate Coordinator.
- Students who wish to take 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 for both the MA and PhD programs.
- The submission deadline for all applications and supporting documents is January 7.

Program Requirements
PhD students pursue a program of study and research approved by the department. The minimum requirements follow:
- Course Requirements.
  - Students with a four-year bachelor’s degree must take a minimum of 6.0 FCE in philosophy, with an average grade of at least an A+. At least 2.0 FCE must be in the history of philosophy and at least 2.0 FCE must be in the problems of philosophy. Students who fail to maintain an average of at least an A- after completing 3.0 FCE may have their registration terminated.
  - Students with a master’s degree must take a minimum of 3.0 FCE in philosophy, with a minimum A- average. At least 1.0 FCE must be in the history of philosophy and at least 1.0 must be in the problems of philosophy. A student whose MA degree does not exhibit sufficient breadth, in particular, does not include the equivalent of at least 1.0 FCE in the history of philosophy and at...
Philosophy

A doctoral student is required to complete at least 1.0 FCE in the problems of philosophy, may be required to take additional courses.

- All students must complete the proseminar in philosophy (PHL 1111H) during the fall session of their first year. This will count as 0.5 FCE toward the number of requisite courses.
- With the department's permission, a student may replace up to 1.0 FCE in philosophy with a graduate course offered by another department, provided that the course is required for the student's planned research.
- A doctoral student is required to complete at least 3.0 FCE by the end of the first year of registration and to complete any of the remaining degree course requirements by the end of the second year.

Breadth Requirement. A student must demonstrate competence in at least six areas of philosophy, to include:

- Each of the following topics 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 the periods in the history of philosophy specified below; no more than two consecutive periods may be chosen:
  - Ancient
  - Medieval
  - 17th-18th century
  - 19th century
  - 20th century
- 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 area requirement is met.

Area Requirement. Before proceeding with formal research on a thesis topic, the student must demonstrate competence in a broader area within which that topic falls. An individual Area Committee (established by the student and approved by the department) assists in framing that area and compiling an appropriate reading list; it also approves an appropriate plan for carrying out the research. The research undertaken by the student either culminates in a written exam or else consists of a research project. Both paths lead to an oral exam based on the written work and the reading list.

Research Tools Requirement. Each PhD student must demonstrate competence in at least one research tool. A research tool may be one of the following: reading knowledge of a language other than English, familiarity with a discipline other than philosophy (e.g., linguistics, psychology, or mathematics), mastery of research methods not typical in philosophy (e.g., statistical methods), and so on. The research tool will be determined by the Graduate Coordinator in consultation with the student's area committee.

Thesis. A candidate must submit a thesis on an approved subject and defend the thesis at a 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 fulfill the course, breadth, area, 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 the first year of registration in the case of someone admitted on the basis of a master's degree; otherwise by the end of the second year, a student should have completed all the course requirements for the degree. By the end of the following year of registration, the student should have satisfied any remaining breadth requirements, passed the area examination, and submitted to the Graduate Office the thesis topic and the names of faculty members who have agreed to serve as supervisor and readers. (These are general deadlines; consult the department's Web page for specific dates and further details.) After this, the candidate begins work on the thesis, which the candidate is expected to finish within two years.

Combined Juris Doctor/Doctor of Philosophy Program

Minimum Admission Requirements
- Entry to the program requires admission to both the PhD program in philosophy and the JD program in law. Separate applications are required.

Program Requirements
- For details, visit the Faculty of Law’s Web site at www.law.utoronto.ca/prosp_stdn_content.asp?itemPath=3/6/15/0/0&contentId=190
- Year 1 - students complete the first year of the law curriculum.
- Year 2 - students complete the remaining requirements for the JD degree and begin course work required for the PhD. Note that some of the courses completed in fulfillment of PhD requirements will be counted for credit towards the JD and vice versa.
• By the end of Year 4, in the case of someone admitted on the basis of a master's degree, otherwise by the end of Year 5, a student should have completed any remaining course requirements for the PhD degree, satisfied the breadth requirement, and met the area requirement. The candidate then begins work on the thesis.
• During Years 1 and 2, students are registered as full-time law students; subsequently, they are registered as full-time doctoral students and are eligible for graduate funding.

Course List
Not all courses are offered every year. Please consult the department’s Graduate Bulletin, 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 Course for Ph.D. Students
PHL 1111H Proseminar

Reading Courses
PHL 1000H,Y Reading Course
PHL 1001H,Y Reading Course
PHL 1500H,Y Reading Course

History of Philosophy

Ancient Philosophy
PHL 2000H Early Greek Philosophy
PHL 2002H Plato
PHL 2003H Aristotle
PHL 2005H Seminar in Plato
PHL 2007H Seminar in Aristotle
PHL 2009H Seminar in Greek Philosophy
PHL 2010H Late Greek Philosophy

Eastern Philosophy
PHL 2015H Confucianism
PHL 2016H Taoism: Philosophy and Religion
PHL 2017H Buddhism in China

Medieval Philosophy
PHL 2020H Augustine
PHL 2030H Aquinas
PHL 2032H Seminar in Aquinas
PHL 2040H Medieval Philosophy
PHL 2041H Seminar in Medieval Philosophy
PHL 2042H Topics in Medieval Philosophy
PHL 2045H Late Medieval Philosophy

Early Modern Philosophy
PHL 2050H Descartes
PHL 2051H The Rationalists
PHL 2054H Hume
PHL 2055H The Empiricists
PHL 2057H Seminar in Seventeenth-Eighteenth Century Philosophy
PHL 2062H Kant’s Critique of Pure Reason
PHL 2063H Kant’s Ethics
PHL 2064H Seminar in Kant

Nineteenth- and Twentieth-Century Philosophy
PHL 2076H Hegel
PHL 2078H Kierkegaard
PHL 2079H Marxist Philosophy
PHL 2084H Seminar in Nineteenth-Century Continental Philosophy
PHL 2085H Husserl
PHL 2088H Heidegger
PHL 2089H Seminar in Twentieth-Century Continental Philosophy
PHL 2090H Hermeneutics
PHL 2091H The Critical Theory of Society
PHL 2092H Pragmatism
PHL 2093H Frege
PHL 2094H Russell
PHL 2095H Wittgenstein
PHL 2096H Seminar in Analytic Philosophy
PHL 2097H Topics in Analytic Philosophy
PHL 2099H Bernard Lonergan

Problems of Philosophy

Metaphysics and Epistemology
PHL 2100H Metaphysics
PHL 2101H Seminar in Metaphysics
PHL 2105H Topics in Metaphysics
PHL 2110H Epistemology
PHL 2111H Seminar in Epistemology
PHL 2115H Topics in Epistemology
PHL 2119H Philosophical Foundations of Multidisciplinary Studies
PHL 2171H Philosophy of Mind
PHL 2172H Seminar in Philosophy of Mind
PHL 2174H Freud’s Philosophy of Mind
PHL 2181H Philosophy of Religion
PHL 2182H Seminar in Philosophy of Religion

Logic and the Philosophy of Language
PHL 2120H Introductory Mathematical Logic
PHL 2122H Advanced Logic
PHL 2124H Seminar in Logic
PHL 2125H Many Valued and Modal Logics
PHL 2126H Philosophy of Logic
PHL 2127H Philosophy of Mathematics
PHL 2128H Decision and Game Theory
PHL 2130H Topics in Informal Logic
PHL 2190H Philosophy of Language
PHL 2191H Seminar in the Philosophy of Language
PHL 2197H Foundations of Computation and Information

Value Theory
PHL 2131H Ethics
PHL 2132H Seminar in Ethics
### Philosophy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHL 2133H</td>
<td>Topics in Ethics</td>
</tr>
<tr>
<td>PHL 2135H</td>
<td>Metaethics</td>
</tr>
<tr>
<td>PHL 2141H</td>
<td>Political Philosophy</td>
</tr>
<tr>
<td>PHL 2142H</td>
<td>Seminar in Political Philosophy</td>
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<tr>
<td>PHL 2143H</td>
<td>Social Philosophy</td>
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<tr>
<td>PHL 2144H</td>
<td>Seminar in Social Philosophy</td>
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<tr>
<td>PHL 2145H</td>
<td>Bioethics</td>
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<td>PHL 2146Y</td>
<td>Topics in Bioethics</td>
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<tr>
<td>JVP 2147H</td>
<td>Environmental Philosophy</td>
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<td>PHL 2148H</td>
<td>Philosophy of Law</td>
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<td>JPL 2149H</td>
<td>Legal Theory</td>
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<tr>
<td>PHL 2151H</td>
<td>Aesthetics</td>
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<tr>
<td>PHL 2152H</td>
<td>Philosophy and Teaching</td>
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#### Feminist Philosophy

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<tr>
<td>JPW 2118H</td>
<td>Philosophical Foundations of Women's Studies</td>
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<tr>
<td>PHL 2140H</td>
<td>Feminist Philosophy</td>
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#### Philosophy of Science

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<tr>
<td>JPH 2192H</td>
<td>Philosophy of Science</td>
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<tr>
<td>JPH 2194H</td>
<td>Topics in the History of the Philosophy of Science</td>
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<tr>
<td>PHL 2195H</td>
<td>Philosophy of Biology</td>
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<tr>
<td>PHL 2196H</td>
<td>Topics in the Philosophy of Science</td>
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<tr>
<td>PHL 2199H</td>
<td>Seminar in the Philosophy of Science</td>
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#### Miscellaneous

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<tr>
<td>PHL 3000H</td>
<td>Professional Workshop</td>
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<tr>
<td>PHL 3011H</td>
<td>Intensive Special Course</td>
</tr>
<tr>
<td>PHL 4900H</td>
<td>Research Seminar</td>
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</table>

### Graduate Faculty

#### Full Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ainslie, Donald</td>
<td>BSc, MA, PhD</td>
</tr>
<tr>
<td>Ali, Peter</td>
<td>AB, PhD</td>
</tr>
<tr>
<td>Allen, Derek</td>
<td>BA, PhD</td>
</tr>
<tr>
<td>Barney, Rachel</td>
<td>BA, PhD</td>
</tr>
<tr>
<td>Berkovitz, Joseph</td>
<td>BSc, MA, PhD</td>
</tr>
<tr>
<td>Black, Deborah</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Boyle, Joseph</td>
<td>BA, PhD</td>
</tr>
<tr>
<td>Brown, James</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Chakravartty, Anjan</td>
<td>BSc, MPH, MA, PhD</td>
</tr>
<tr>
<td>Clark, Philip</td>
<td>DPhil</td>
</tr>
<tr>
<td>Comay, Rebecca</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Cunningham, Frank</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Dyzenhaus, David</td>
<td>BA, LLB, PhD</td>
</tr>
<tr>
<td>Franks, Paul</td>
<td>AB, MA, PhD</td>
</tr>
<tr>
<td>Gerson, Lloyd</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Gibbs, Robert</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Goetschel, Willi</td>
<td>PhD</td>
</tr>
<tr>
<td>Gooch, Paul William</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Heath, Joseph</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Howson, Colin</td>
<td>BSc, PhD</td>
</tr>
<tr>
<td>Hurka, Thomas</td>
<td>BPhil, BA, DPhil</td>
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<tr>
<td>Hutchinson, Douglas</td>
<td>BA, BPhil, DPhil</td>
</tr>
<tr>
<td>Inwood, Brad</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Katz, Bernard</td>
<td>BA, MA, PhD</td>
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<tr>
<td>King, Peter</td>
<td>AB, PhD</td>
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<tr>
<td>Kingwell, Mark</td>
<td>AB, BA, AM, MPH, PhD</td>
</tr>
<tr>
<td>Kremer, Philip</td>
<td>BS, PhD (Coordinator of Graduate Studies)</td>
</tr>
<tr>
<td>Lange, Lynda</td>
<td>AB, BA, PhD</td>
</tr>
<tr>
<td>Matthen, Mohan</td>
<td>- PhD</td>
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<tr>
<td>Misak, Cheryl</td>
<td>BA, PhD</td>
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<tr>
<td>Morgan, Kathryn</td>
<td>BA, MA, MEd, PhD</td>
</tr>
<tr>
<td>Morrison, Margaret</td>
<td>BA, MA, PhD</td>
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<tr>
<td>Mullin, Amy</td>
<td>BA, PhD</td>
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<tr>
<td>Nagel, Jennifer</td>
<td>DPhil</td>
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<tr>
<td>Novak, David</td>
<td>AB, PhD</td>
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<tr>
<td>Raffman, Diana</td>
<td>PhD</td>
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<tr>
<td>Ripstein, Arthur</td>
<td>- PHM, LLM, PhD</td>
</tr>
<tr>
<td>Rozemond, Marleen</td>
<td>BA, PhD</td>
</tr>
<tr>
<td>Seager, William</td>
<td>Edward - BA, MA, PhD</td>
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<tr>
<td>Sedivy, Sonia</td>
<td>BA, PhD</td>
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<tr>
<td>Shen, Vincent</td>
<td>Tising-song - PhD</td>
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<tr>
<td>Smith, Brian</td>
<td>Cantwell - BS, MS, PhD</td>
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<tr>
<td>Sreenivasan, Gopal</td>
<td>BPhil, BA, PhD</td>
</tr>
<tr>
<td>Stefanovic, Ingrid</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Tenenbaum, Sergio</td>
<td>MA, PhD</td>
</tr>
<tr>
<td>Thompson, Evan</td>
<td>AB, MA, PhD</td>
</tr>
<tr>
<td>Thompson, Paul</td>
<td>- PhD</td>
</tr>
<tr>
<td>Walsh, Denis</td>
<td>BA, MPH, PhD</td>
</tr>
<tr>
<td>Whiting, Jennifer</td>
<td>- BA, MA, PhD</td>
</tr>
<tr>
<td>Yi, Byeong-Uk</td>
<td>PhD</td>
</tr>
</tbody>
</table>

#### Members Emeriti

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canfield, John</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>De Sousa, Ronald</td>
<td>BA, PhD</td>
</tr>
<tr>
<td>Goldstick, Daniel</td>
<td>BA, BPhil, DPhil</td>
</tr>
<tr>
<td>Gombay, Andre</td>
<td>BA, BPhil, MA, PhD</td>
</tr>
<tr>
<td>Hacking, Ian</td>
<td>BA, BA, MA, PhD</td>
</tr>
<tr>
<td>Robinson, Thomas</td>
<td>BA, BLitt, MA</td>
</tr>
<tr>
<td>Sobel, Jordan</td>
<td>BS, MA, PhD</td>
</tr>
<tr>
<td>Sumner, L Wayne</td>
<td>BA, MA, PhD</td>
</tr>
<tr>
<td>Urquhart, Alasdair</td>
<td>MA, MA, PhD</td>
</tr>
</tbody>
</table>

#### Associate Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
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</thead>
<tbody>
<tr>
<td>Dickie, Imogen</td>
<td>BPhil, BA, DPhil</td>
</tr>
<tr>
<td>Hawkins, Jennifer</td>
<td>- BA, MA, PhD</td>
</tr>
<tr>
<td>Hellie, Benjamin</td>
<td>- BA, PhD</td>
</tr>
<tr>
<td>Moreau, Stephanie</td>
<td>Sophia - BPhil, BA, JD, PhD</td>
</tr>
<tr>
<td>Weisberg, Jonathan</td>
<td>- PhD</td>
</tr>
<tr>
<td>Wilison, Jessica Marie</td>
<td>BM, PhD</td>
</tr>
</tbody>
</table>
Physical Therapy

Faculty Affiliation
Medicine

Degree Programs Offered
Physical Therapy – MScPT

Overview
The Master of Science in Physical Therapy (MScPT) is a 24-month professional program leading to entry to practice. The program is accredited by the Accreditation Council for Canadian Physiotherapy Academic Program. Graduates will be eligible to write the Physiotherapy Competency Examination of the Canadian Alliance of Physiotherapy Regulatory Boards, which qualifies them to practice physical therapy in Canada. Graduates will be eligible to register in the Canadian Physiotherapy Association and the Colleges of Physiotherapy in all Canadian provinces. The MScPT program is also accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, enabling graduates to apply for licensure in the United States.

The Master of Science in Physical Therapy, Advanced Standing Option is a professional graduate degree program that allows eligible physical therapists with a BScPT from a Canadian university to acquire the master's degree in an online environment with two on-campus residencies. There is a strong focus on research and best practices integrated throughout the program.

Contact and Address
Web: www.physicaltherapy.utoronto.ca
E-mail: physther.facmed@utoronto.ca
Telephone: (416) 978-2765
Fax: (416) 946-8562

Department of Physical Therapy
c/o Centre for Function and Well-Being
University of Toronto
Rehabilitation Sciences Building
Room 160, 500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Degree Programs

Physical Therapy

Master of Science in Physical Therapy

Minimum Admission Requirements

24-month Program
- Applicants to the 24-month MScPT program are considered if they hold a four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, with a minimum mid-B average in the final year.
- Prerequisite courses including human vertebrate physiology (1.0 full-course equivalent (FCE)), life and/or physical science (1.0 FCE), social sciences, humanities or languages (1.0 FCE); and statistics or research methods (0.5 FCE).
- Facility 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 TOEFL, with minimum scores of:
  - Paper-based test: 600 with 5 on the TWE and 50 on the TSE.
  - Computer-based test: 250 with 5 on the essay rating component and 50 on the TSE.
  - Internet-based test: 100/120 overall and 22/30 on the writing and speaking sections.
- The application deadline is early January; deadline for transcripts is end of January.
- Refer to the departmental Web site for additional information.

Advanced Standing Option
- Applicants to the 12-month MScPT Advanced Standing Option who are eligible physical therapists will be considered if they have completed a four-year undergraduate BScPT degree program or equivalent at a Canadian university with a minimum mid-B average in the final year.
- Applicants must be registered as independent practitioners with a relevant physiotherapy regulatory body and/or have completed the PNE and are awaiting results.
- Refer to the departmental Web site for additional information.

Program Requirements

24-month Program
- Students normally complete all requirements within 24 months.
- Participate in 12 units that includes lectures, seminars, tutorials, laboratories, case-based learning, structured clinical sessions, structured independent
study units, and clinical internships. Research principles and practices are integrated into the curriculum. Students are required to complete all units.

- Complete a group research project.
- Demonstrate proficiency in key areas of professional practice, including research practice, prior to graduation.

Advanced Standing
- Students complete the program in an online environment with two mandatory on-campus residencies.
- Attend unit 6 (0.75 FCE) and unit 12 (1.0 FCE) in on-campus residency periods.
- Complete unit 10, a group research project, via online format (0.75 FCE).
- Complete an elective course (0.5 FCE) either online or on-campus.
- The program is completed in 12 months.

Course List

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHT 1001H</td>
<td>Introduction to Professional Physical Therapy Practice, Evaluation and Research</td>
</tr>
<tr>
<td>PHT 1002Y</td>
<td>Cardiorespiratory and Exercise Physical Therapy Practice</td>
</tr>
<tr>
<td>PHT 1003Y</td>
<td>Musculoskeletal Physical Therapy Practice</td>
</tr>
<tr>
<td>PHT 1004Y+</td>
<td>Clinical Internship—Cardiorespiratory (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>PHT 1005Y+</td>
<td>Neurological Physical Therapy Practice</td>
</tr>
<tr>
<td>PHT 1006Y</td>
<td>Research and Program Evaluation for Physical Therapy Practice I</td>
</tr>
<tr>
<td>PHT 1007Y</td>
<td>Clinical Internship—Neuroscience (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>PHT 1008Y+</td>
<td>Advanced Neuromusculoskeletal Physical Therapy Practice</td>
</tr>
<tr>
<td>PHT 1009Y+</td>
<td>Clinical Internship—Musculoskeletal II (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>PHT 1010Y</td>
<td>Research and Program Evaluation for Physical Therapy Practice II (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>PHT 1011Y</td>
<td>Clinical Internship—Selective (Honours/Pass/Fail)</td>
</tr>
<tr>
<td>PHT 1012Y</td>
<td>Research and Program Evaluation for Physical Therapy Practice III</td>
</tr>
<tr>
<td>PHT 1014Y</td>
<td>Clinical Internship—Musculoskeletal (Honours/Pass/Fail)</td>
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</table>

Selective Course

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHT 1015Y</td>
<td>Clinical Internship—Physical Therapy Practice (Honours/Pass/Fail) (PHT 1015Y may replace any one of PHT 1004Y, PHT 1007Y, PHT 1009Y, PHT 1011Y, and PHT 1014Y.)</td>
</tr>
</tbody>
</table>

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Graduate Faculty

Full Members
Berg, Katherine - BPT, BSc(PT), MSc, PhD  (Chair & Graduate Chair)
Brooks, Dina - BSc(PT), MSc, PhD  (Acting Chair & Acting Graduate Chair, July 1 - December 31, 2009)

Cott, Cheryl - DIPP, BPT, MSc, PhD
Davis, Aileen - BSc(PT), MSc
Jaglal, Susan - BSc, MSc, PhD
McIlroy, William - BSc, PhD
Verrier, Mary (Molly) - DIPOT, MHSc
Yoshida, Karen - BSc, BPHE, MSc, PhD

Associate Members
Davies, Robyn - DIPP, BHSC(P/T), BHSC(P/T)
Ellerton, Cindy - BSc(PT), MSc
Evans, Catherine - BSc, MSc, PhD  (Coordinator of Graduate Studies)
Gibson, Barbara - MSc, BMR(P/T), PhD
Graveline, Chantal - BSc, MSc
Howe, Joanne - DIPP, DIPOT, BSc
Hunter, Judith - BPT, MSc
Klein, Clifford - BPHE, MPE, PhD
Koeberle, Paulo - BS, PhD
Landry, Michel - BSc(PT), MSc(PT), DPhil
Mathur, Sunita - BSc(PT), MSc(PT), DPhil
Moody, Kim - BHSC(P/T)
Mori, Brenda - BSc(PT), MSc
Morshead, Cindi Marie - BS, PhD
Nixon, Stephanie - BHSC(P/T), BA, PhD
Nussbaum, Ethne - BSc
O’Brien, Kelly - BSc(PT), BS, PhD
Piccinin, Jo-Anne - BSc(PT)
Salbach, Nancy - BSc(PT), BS, MSc, PhD
Switzer-Mcintyre, Sharon - BSc, BPHE, PhD
Tang, Ada - BSc(PT)
Wright, Virginia - BSc, MSc
Yeung, Euson - BSc(PT), MEd
Young, Nancy - BSc(PT), BSc(PT), MSc
Zabjek, Karl - BSc, MCLSC, PhD
Physics

Faculty Affiliation
Arts and Science

Degree Programs Offered
Physics – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Astrophysics
   • Physics, MSc
2. Biomedical Engineering
   • Physics, MSc, PhD
3. Environmental Studies
   • Physics, MSc, PhD
4. Geology and Physics
   • Physics, MSc, PhD
5. Optics
   • Physics, MSc

Overview
The Department of Physics offers graduate programs leading to the Master of Science and the Doctor of Philosophy degrees. The department carries out research in experimental and theoretical physics in the following fields: atmospheric physics, geophysics, quantum optics, condensed matter physics, subatomic physics and astrophysics, and biophysics. The department has close ties with the Canadian Institute for Theoretical Astrophysics. This association enables our students to work and consult with leading theorists who are appointed to, or who are visiting, CITA. Students are accepted under the general regulations. The department provides financial support for one year of the MSc and four years of the PhD program (five years for direct-entry PhD).

Contact and Address
Web: www.physics.utoronto.ca
E-mail: 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

Degree Programs

Physics

Master of Science

Minimum Admission Requirements
• An appropriate four-year bachelor's degree with a final year average of at least mid-B from the University of Toronto, or its equivalent.
• Proof of English language facility for applicants whose first language is not English.

Program Requirements
• Students normally complete program requirements in one of three ways:
  o Option 1 - Course Work plus MSc Research Report: graduate lecture courses (3.0 FCE) and a Research Report, which consists of a 6000-series research course appropriate to the field of specialization (1.0 FCE) and PHY3400Y (1.0 FCE).
  o Option 2 - Course Work plus MSc Research Project: graduate lecture courses (2.0 FCE), a 6000-series research course appropriate to the field of specialization (1.0 FCE), and a Research Project, which consists of a 7000-series seminar course appropriate to the field of specialization (1.0 FCE) and PHY3400Y (1.0 FCE).
  o Option 3 - Course Work plus MSc Research Thesis: graduate lecture courses (2.0 FCE) and a thesis. Selection of the program is made by the student and faculty advisor in consultation with the Associate Chair.
• All MSc students are expected to attend the weekly general colloquium conducted by the department.
• The MSc program is full time.
• Residence requirement is one year.

Doctor of Philosophy

Minimum Admission Requirements
• An appropriate University of Toronto master's degree or its equivalent, with an average of at least B+ or demonstrated comparable research competence.
• Proof of English facility for applicants whose first language is not English.
• Outstanding applicants may be considered directly from undergraduate programs. Normally, these applicants will have an undergraduate average of A or higher.

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.
Degree Programs by Graduate Unit

- Complete 4.0 FCE graduate lecture courses and a thesis. Course credit will normally be given toward the PhD for all graduate lecture courses taken during a master’s program in this department. Students who have completed an appropriate MSc elsewhere and are entering the PhD program will generally be given a course credit of up to 2.0 FCE graduate lecture courses towards their PhD course requirement.
- Complete a qualifying oral examination. Students entering the PhD program with a master's degree must complete the qualifying examination within 8 months; students entering with a bachelor's degree must complete the 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.
- All PhD students are expected to attend the weekly general colloquium conducted by the department.
- The PhD program is full time.

Course List
All courses are not given every year. Please check the departmental brochure or Web site for course availability.

**Introductory Courses**
- PHY 1460H Nonlinear Physics
- PHY 1483H Relativity Theory I
- PHY 1484H Relativity Theory II
- PHY 1485H Advanced Classical Optics
- PHY 1487H Quantum Theory of Solids I
- PHY 1489H Introduction to High Energy Physics
- PHY 1491H Current Interpretations of Quantum Mechanics
- PHY 1492H Physics of the Earth
- PHY 1493H Geophysical Imaging I
- PHY 1494H Geophysical Imaging II
- PHY 1496H Experimental Applied Geophysics
- PHY 1498H Introduction to Atmospheric Physics

**General Courses**
- PHY 1500H Statistical Mechanics
- PHY 1510H Electromagnetism
- PHY 1520H Quantum Mechanics
- PHY 1530H Fluid Mechanics
- PHY 1540H Mathematical Methods in Physics
- PHY 1600H Effective Communication for Physicists

**Specialized Courses**
- PHY 2108H Special Topics in Physics I
- PHY 2109H Special Topics in Physics II
- PHY 2202H Atomic and Molecular Physics
- PHY 2203H Quantum Optics I
- PHY 2204H Quantum Optics II
- PHY 2205H Special Topics in Quantum Optics I
- PHY 2206H Special Topics in Quantum Optics II
- PHY 2208H Nonlinear Optics
- PHY 2211H Quantum Information Theory
- PHY 2303H Quantum Theory of Solids II
- PHY 2313H Special Topics in Condensed Matter Physics I
- PHY 2314H Special Topics in Condensed Matter Physics II
- PHY 2315H Advanced Statistical Mechanics
- PHY 2321H Many Body Physics I
- PHY 2322H Many Body Physics II
- PHY 2401H Cosmology and Black Holes
- PHY 2403H Quantum Field Theory I
- PHY 2404H Quantum Field Theory II
- PHY 2405H Experimental High Energy Physics
- PHY 2406H Special Topics in Particle Physics I
- PHY 2407H Special Topics in Particle Physics II
- PHY 2408H Phenomenology of the Standard Model
- PHY 2502H Climate System Dynamics
- PHY 2504H Advanced Atmospheric Physics
- PHY 2505H Atmospheric Radiative Transfer and Remote Sounding
- PHY 2506H Data Assimilation and Retrieval Theory
- PHY 2509H Special Topics in Atmospheric Physics I
- PHY 2510H Special Topics in Atmospheric Physics II
- PHY 2601H Special Topics in Geophysics I
- PHY 2602H Special Topics in Geophysics II
- PHY 2603H Inverse Theory
- PHY 2604H Exploration Seismology
- PHY 2606H Global Geophysics
- PHY 2609H Planetary Physics
- PHY 2701H Biological Physics
- JGP 4170H Geotectonics

**Report Course for MSc Students**
- PHY 3400Y+ Selected Topics in Physics

**Seminar Courses**
- PHY 7001Y+ Atmospheric Physics Seminar
- PHY 7002Y+ Biophysics Seminar
- PHY 7003Y+ Condensed Matter Physics Seminar
- PHY 7004Y+ Geophysics Seminar
- PHY 7005Y+ Quantum Optics Seminar
- PHY 7007Y+ Subatomic Physics and Astrophysics Seminar

**Research Courses**
- PHY 601Y Research in Atmospheric Physics
- PHY 602Y Research in Biophysics
- PHY 603Y Research in Condensed Matter Physics
- PHY 604Y Research in Geophysics
- PHY 605Y Research in Quantum Optics
- PHY 607Y Research in Subatomic Physics and Astrophysics

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Graduate Faculty

Full Members
Abbat, Jonathan - BSc, PhD
Bailey, David - BSc, PhD
Bailey, Richard - BSc, PhD (Acting Chair & Acting Graduate Chair July 1, 2009 to June 30, 2010)
Barzda, Virginijus - BS, DSc
Bond, J Richard - BSc, MS, PhD
Burch, Kenneth - BSc, MS, PhD
Chan, Hue Sun - BSc, MA, PhD
Chun, Kin-Yip - BSc, MA, PhD
Code, Richard - BSc, AM, PhD
Desai, Rashmikant - BSc, PhD
Dhirani, Al-Amin - MSc, PhD
Donaldson, D. James - PhD
Drummond, James - BA, MA, DPhil
Dyer, Charles - BS, MSc, PhD
Edwards, Richard - BSc, PhD
Gradinaru, Claudiu - PhD
Griffin, P Allan - BSc, MSc, PhD
Holdom, Bob - BSc, MA, PhD
Hori, Kentaro - PhD
James, Daniel - BA, PhD
John, Sajeev - PhD
Jones, Dylan - AB, SM, PhD
Joy, Michael - BSc, MSc, PhD
Julian, Stephen - BSc, MS, PhD
Kay, Lewis - PhD
Kee, Hae-Young - PhD
Key, Anthony - MA, DPhil
Kim, Yong Baek - PhD
Kim, Young-June - BS, PhD
Kofman, Lev - PhD
Krieger, Peter - PhD
Kushner, Paul - BSc, MSc, PhD
Liu, Qinya - PhD
Lo, Hoi-Kwong - BA, MA, MS, PhD
Lowman, Julian - BSc, MS, DPhil
Luke, Michael - BSc, PhD (Chair & Graduate Chair)
Luste, George - BA, PhD
Marjoribanks, Robin - BSc, MS, MSc, PhD
Martin, John - PhD
Milkereit, Bernd - Dr.Rer.Nat
Miller, R J Dwayne - BSc, PhD
Mitrovica, Jerry - BASc, MSc, PhD
Moore, GW Kent - BSc, PhD
Morris, Stephen - BSc, MSc, PhD
Murray, Norman - BSc, PhD
Netterfield, C. Barth - BSc, PhD
Norwich, Kenneth - MSc, PhD
Orr, Robert - BSc, PhD
Paramekanti, Arun - BE, PhD
Peet, Amanda - PhD
Peltier, W Richard - BSc, MSc, PhD
Pen, Ue-Li - BSc, PhD
Poppitz, Eric - PhD
Repka, Joseph - BSc, PhD
Ryu, William - AB, PhD
Savard, Pierre - PhD
Shepherd, Theodore - BSc, PhD (Associate Chair for Graduate Studies)
Sinervo, Pekka - BSc, PhD
Sipe, John - BSc, MSc, PhD
Stanley, Sabine - BSc, PhD
Steinberg, Aephraim - PhD
Strong, Kimberly - PhD
Teuscher, Richard - BSc, MSc, PhD
Thompson, Christopher - BSc, PhD
Thywissen, Joseph - AM, PhD
Trischuk, William - PhD
Van Driel, Henry - BSc, MSc, PhD
Walker, Kaley - BSc, PhD
Wei, John - PhD
Wells, Mathew - BS, DPhil

Members Emeriti
Drake, Thomas - BSc, MSc, PhD
Dunlop, David - MA, PhD
Jacobs, Allan - BASc, MSc, PhD
Lee, Martin - BA, MA, PhD
Litherland, Albert - BSc, PhD
Logan, Robert - BSc, PhD
May, Albert - BA, MA, PhD
O’Donnell, Patrick - BSc, PhD
Perz, John - BASc, MASc, PhD
Rowe, David - BA, MA, DPhil
Walker, Michael - ENG, DPhil
West, Gordon - BASc, MA, PhD
Wong, Samuel - BA, MS, PhD

Associate Members
McMillen, David - BSc, MS, PhD
Physiology

Faculty Affiliation
Medicine

Degree Programs Offered
Physiology – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Biomedical Engineering
   • Physiology, MSc, PhD
2. Cardiovascular Sciences
   • Physiology, MSc, PhD
3. Developmental Biology
   • Physiology, PhD
4. Neuroscience
   • Physiology, MSc, PhD

Overview
The Department of Physiology offers graduate programs leading to the Master of Science and Doctor of Philosophy degrees. 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
Web: www.physiology.utoronto.ca
E-mail: graduate.physiology@utoronto.ca
Telephone: (416) 978-2601
Fax: (416) 978-4940

Address:
Department of Physiology
University of Toronto
Room 3217, Medical Sciences Building
1 King’s College Circle
Toronto, Ontario M5S 1A8
Canada

Degree Programs

Physiology

Master of Science

Minimum Admission Requirements
• Admission is based on academic record, an essay summarizing background strengths and scientific aims, and at least two confidential letters of reference.
• Minimum standing of at least B+ in the final year of a University of Toronto 20-credit bachelor’s degree, or its equivalent from a recognized university, with courses such as biochemistry, calculus, organic and physical chemistry, general physics, and physiology.
• We encourage physical science stream students from undergraduate programs in physics, mathematics, engineering, and other sciences 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 facility in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  o Paper-based TOEFL: 600 and 5 on the TWE
  o Computer-based TOEFL: 250 and 5 on the essay rating component
  o Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections
Other English proficiency tests are acceptable. Please consult the Web site for departmental standards.

Program Requirements
• 1 full-course equivalent (FCE) in Physiology graduate-only courses. Students with appropriate background may, with the approval of the Graduate Coordinator, substitute a suitable extra-departmental half-course for 0.5 FCE. Courses are selected in consultation with the supervisor and/or advisory committee. See the Physiology Web site for details of course requirements.
• Attend the departmental seminar series.
• Present and defend a research thesis acceptable to the graduate department.
• After 12 to 18 months in the MSc program, students will do one of the following:
  o write and defend a MSc thesis and graduate
  o write and defend a thesis and go on to the PhD program
  o transfer from the MSc into the PhD program. Transfer is encouraged for students who have made substantial progress in their research and have demonstrated the desire and potential to meet the requirements of a rigorous research training program. Such students will have fulfilled
all course requirements for the MSc with at least an A- average and have demonstrated potential for publication of their work. There must be a clearly identified program for future research that continues, or is consistent with, work already underway. Too large a project for the MSc is not a reason for transfer to the PhD.

Doctor of Philosophy

Minimum Admission Requirements

- Admission is based on academic record, a statement summarizing background strengths and scientific aims, and at least two confidential letters of reference.
- Students may be admitted via one of the following routes:
  - after completion of the MSc degree program or its equivalent with at least B+ standing from a recognized university
  - through transfer from the MSc program
  - 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.

- Applicants should have taken courses such as 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 facility in the English language through the successful completion of the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL: 600 and 5 on the TWE
  - Computer-based TOEFL: 250 and 5 on the essay rating component
  - Internet-based TOEFL: 100/120 and 22/30 on the writing and speaking sections

Other English proficiency tests are acceptable. Please consult the Web site for departmental standards.

Program Requirements

- 2.0 full course equivalents (FCE) in Physiology graduate-only courses in which an average standing of at least A- is maintained. 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. Students transferring from MSc in Physiology are required to complete 1.0 FCE since these students will have already fulfilled 1.0 FCE in the MSc.
- PSL 1066H PhD Research Grant Proposal is a mandatory course and counts as 0.5 FCE. This course requires a written proposal and oral defence of the student's research program over the ensuing three years. See the Physiology Web site for details of course requirements.
- Attendance at and contribution to the departmental seminar program is an important part of graduate education and is a requirement of the program.
- 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.

Course List

Not all courses are offered each year. Check departmental Web site for course availability and course requirements.

JCV 1060H Developmental Cardiovascular Physiology
JCV 3060H Advanced Topics in Cardiovascular Sciences—Molecular Biology and Heart Signal Transduction
JCV 3061H Advanced Topics in Cardiovascular Sciences—Hormones
JCV 3062H Advanced Research in Cardiovascular Sciences—Heart Function
JCV 3063H Advanced Research in Cardiovascular Sciences—Vascular
JYG 1555H Advanced Topics: Cellular and Molecular Neuroscience
PSL 1024H Advanced Topics: Neuroendocrinology
PSL 1026H Advanced Topics: Experimental Cell Physiology
PSL 1034H Advanced Topics: Metabolic Disorders
PSL 1036H Advanced Topics: Respiration
PSL 1047H Advanced Topics: Somatosensory and Pain Neuroscience
PSL 1053H Advanced Topics: Critical Assessment of Ion Channel Function
PSL 1066H* Research Grant Proposal (Credit/No Credit)
PSL 1067H Advanced Topics: Advances and Techniques in Developmental Physiology
PSL 1068H Advanced Topics: Molecular Basis of Behaviour
PSL 1069H Advanced Topics: Respiratory Physiology
PSL 1070H Advanced Topics: Hormone Action
PSL 1071H Advanced Topics: Computational Neuroscience
PSL 1480H Advanced Topics: Investigative Developmental Physiology

Joint Graduate/Undergraduate

JNR 1444Y Fundamentals of Neuroscience: Cellular and Molecular
JNS 1000Y Fundamentals of Neuroscience: Systems and Behaviour
PSL 1052H Fundamentals of Ion Channel Function

*Courses which may continue over a program. The course is graded when completed.
Degree Programs by Graduate Unit

PSL 1054H  Physiological Instrumentation and Electronics
PSL 1061H  Reproductive Physiology
PSL 1421H  Pregnancy and Birth: From Implantation to Newborn
PSL 1425H  Integrative Metabolism and its Endocrine Regulation
PSL 1432H  Theoretical Physiology
PSL 1462H  Molecular Aspects of Cardiovascular Function
PSL 1472H  Sleep Physiology and Chronobiology

Graduate Faculty

Full Members
Adamson, Susan  -  BSc, MSc, MD, PhD
Anderson, Gerald  -  BSc, MSc, PhD
Backx, Peter  -  DRMED/VET, PhD, PhD
Bear, Christine  -  BSc, MSc, PhD
Belik, Jaques  -  MD
Belsham, Denise  -  PhD
Bocking, Alan  -  MD
Bolz, Steffen-Sebastian  -  MD, DRMED
Boonstra, Rudy  -  BSc, PhD
Broussard, Dianne  -  PhD
Brown, Theodore  -  BSc, PhD
Brubaker, Patricia  -  BSc, PhD
Canigia, Isabella  -  MD, PhD
Carlen, Peter  -  MD
Casper, Beverley  -  MD
Coates, Allan  -  BSc, PhD
Diamant, Nicholas  -  MDCM
Duffin, James  -  BSc, AAS, PhD
Eubanks, James  -  BSc, AA, PhD
Fantus, George  -  BSc, MDCM
Feng, Zhong Ping  -  PhD
Frankland, Paul  -  MA, PhD
Gaiasano, Herbert  -  BS, MD
Giacca, Adria  -  MD
Hare, Gregory  -  MD, PhD
Harrison, Robert  -  PhD, DSc
Heximer, Scott  -  PhD
Horner, Richard  -  BSc, PhD
Husain, Mansoor  -  MB, MD
Hutchison, William  -  BSc, MSc, PhD
Jankov, Robert  -  MB
Jia, Zhengping  -  PhD
Jin, Tianru  -  PhD
Jones, Nicola  -  MD
Josselyn, Sheena  -  MA, PhD
Jurisicova, Andrea  -  PhD
Kavanagh, Brian  -  BSc, BSc, MBChB, MBChB
Klip, Amira  -  SCF
Lambe, Evelyn  -  AB, MSc, PhD
Liu, Fang  -  PhD
Liu, Mingyao  -  MSc, MD
Liu, Peter  -  MD
Lu, Wei Yang  -  MSc, MD, PhD
Lye, Stephen  -  BSc, PhD
MacDonald, John  -  BSc, PhD
Mackay, William  -  BSc, MSc, PhD
Matthews, Stephen  -  BSc, DPhil

Graduate Faculty (Chair and Graduate Chair)
McIlroy, William  -  BSc, PhD
Miller, Freda  -  BSc, PhD
Mills, Linda  -  PhD
Monnier, Philippe  -  MBA, PhD
Mount, Howard  -  BSc, PhD
Ng, Dominic  -  MD
Orser, Beverley  -  MD
Pang, Cho  -  BSc, MSc, PhD
Pennefather, Peter  -  BSc, PhD
Post, Martin  -  PhD
Froaggin, Susan Elizabeth  -  MD
Rocheleau, Jonathan  -  BSc, PhD
Roder, John  -  PhD
Rosenblum, Norman  -  MD
Salter, Michael  -  MD, PhD
Schimmer, Bernard  -  BS, PhD
Schlichter, Lyanne  -  BSc, MSc, PhD
Seltzer, Ze'ev  -  DMD, BMEDSC
Sessile, Barry  -  BS, MSD, BDS, PhD
Skinner, Frances  -  PhD
Sole, Michael  -  BSc, MD
Stanley, Elise  -  PhD
Sugita, Shuzo  -  PhD, PhD
Sweezey, Neil  -  BSc, MSc, MD, MD
Tanswell, Alan  -  BS, MBBS, MBBS
Thomas, Scott  -  BSc, MSc, PhD
Trimble, William  -  BSc, PhD
Tweed, Douglas  -  MD, PhD, PhD
Tymianski, Michael  -  BA, MD, PhD
Verrier, Mary (Molly)  -  DipOT, MHSc
Volchuk, Allen  -  BSc, PhD
Vranic, Mladen  -  MD, DSc
Wang, Lu-Yang  -  PhD
Wang, Qinghua  -  DSc
Wheeler, Michael  -  BSc, PhD
Wilson, Gregory  -  MSc, MD
Wittlich, Carin  -  MSc, DVM
Wojtowicz, J. Martin  -  BSc, PhD
Zhao, Mei  -  PhD
Zhuo, Min  -  MS, PhD

Members Emeriti
Kwan, Hon  -  BASc, MSc, PhD
Norwich, Kenneth  -  MSc, PhD

Associate Members
Chauhan, Vijay  -  MD
Dhe-Paganon, Sirano  -  BSc, DCHEM
Fisher, Joseph  -  MD
Gramolini, Anthony  -  BSc, MSc, PhD
Lam, Tony  -  BS, DPhil
Mazer, Cyril David  -  MD
Min, Jinrong  -  PhD
Ni, Heyu - MSc, MD, PhD
Rogers, Ian - MSc, PhD
Suzuki, Hiroshi - MD, PhD
Zhang, Haibo - MSc, PhD
Degree Programs by Graduate Unit

Political Science

Faculty Affiliation
Arts and Science

Degree Programs Offered
Political Science – MA, Combined JD/MA, PhD, Combined JD/PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Asia-Pacific Studies
   • Political Science, MA
2. Dynamics of Global Change
   • Political Science, PhD
3. Environmental Studies
   • Political Science, MA, PhD
4. Ethnic and Pluralism Studies
   • Political Science, MA, PhD
5. Global Health
   • Political Science, PhD
6. International Relations
   • Political Science, MA
7. Jewish Studies
   • Political Science, MA, PhD
8. Sexual Diversity Studies
   • Political Science, MA, PhD
9. South Asian Studies
   • Political Science, PhD
10. Women and Gender Studies
    • Political Science, MA, PhD

Overview
The Master of Arts 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 three fields: Political Science, Political Theory, and Political Economy of International Development. Students whose interests are primarily normative and philosophical may choose the field of Political Theory.

The Combined Juris Doctor/Master of Arts program allows students to obtain an MA in Political Science as well as a JD degree in Law. We will not be accepting applications to this program for 2010 admission as it will no longer be offered.

The Combined Juris Doctor/Doctor of Philosophy program enables students to acquire a PhD in Political Science as well as a JD in law.

The Doctor of Philosophy program offers courses in four major fields of Political Theory, Canadian Politics, International Relations, Comparative Politics, and in the two minor fields of Development Studies, and Public Policy.

Contact and Address
Web: www.chass.utoronto.ca/polsci/information/graduate/graduate_information.htm
E-mail: poligrad@artsci.utoronto.ca
Telephone: (416) 978-2017

Department of Political Science
University of Toronto
Room 3025, 100 St. George Street
Toronto, Ontario M5S 3G3
Canada

Degree Programs

Political Science

Degree of Master of Arts

At press time, admission and program requirements for the MA program were pending final approval.

Minimum Admission Requirements
• Cumulative grade average of B+ or better in a bachelor's program equivalent to a University of Toronto four-year bachelor's degree program. Preference will be given to applicants with outstanding academic records and a strong background in political science.
• Applicants for study in the field of Political Economy of International Development must provide evidence of a satisfactory background in political science and 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 Web site (www.chass.utoronto.ca/polsci/information/graduate/application_procedures.htm).

Program Requirements
• Minimum of 4.0 full-course equivalents (FCE).
• Programs are normally completed in three sessions. Programs in which additional requirements or prerequisites must be met may take longer than three sessions to complete.
Combined Juris Doctor/Master of Arts in Law and Political Science

The combined JD/MA in Law and Political Science allows for the completion of both degrees in three years, rather than the four that would be required to complete the degrees separately. We will not be accepting applications to this program for 2010 admission as it will no longer be offered.

Minimum Admission Requirements

- Students must be admitted to both the JD program in the Faculty of Law and the MA program in Political Science.

Program Requirements

- Year 1 – complete the first year of law in the combined program
- Years 2 and 3 – complete credits toward both JD in Law and MA in Political Science degrees.
- Those interested in the combined program must also apply to the Collaborative Master’s program in International Relations. If accepted, students must complete the requirements for both the combined program and the collaborative program.
- Students enrolled in both the combined JD/MA program and the Collaborative Master’s program in Political Science will complete the following requirements in years 2 and 3:
  - JHP2231H, ECO2302H, LAW252H, 1.0 FCE in International Relations elective courses, and 1.5 FCE in Political Science courses.

Combined Juris Doctor/Doctor of Philosophy in Law and Political Science

The Combined JD/PhD in Political Science and Law allows students to complete both degrees at least one year sooner than it would take to complete the degrees separately.

Minimum Admission Requirements

- Students must be admitted to both the Faculty of Law and the Doctor of Philosophy Program

Program Requirements

- Year 1 - complete the first year of law in the combined program
- Year 2 - complete a year in Political Science
- Years 3 and 4 - two years in Law
- Complete the requirements of the PhD program, including a thesis.

Doctor of Philosophy

Minimum Admission Requirements

- Applicants may be admitted via one of three routes:
  - Excellent students who have completed an MA degree in political science (or its equivalent) by the time of enrolment
  - Exceptional students who have completed the equivalent of a four-year BA with a concentration in political science by the time of enrolment. Students admitted to the PhD from a BA (or equivalent 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.
  - 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 BA 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.
- Applicants from both levels 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 instructions on the Web site (http://www.
Program Requirements

- PhD students will declare two fields.
  - Field 1 will be one of Canadian Politics, Comparative Politics, International Relations or Political Theory. The normal course requirement for Field 1 will be 2.0 FCE.
  - Field 2 will be one of Canadian Politics, Comparative Politics, International Relations, Political Theory, Development Studies, or Public Policy. The normal course requirement for Field two will be 1.5 FCE.
- The Director of Graduate Studies may exercise discretion to waive the Field 2 requirement for students enrolled in collaborative programs.
- All PhD students who do not designate Political Theory as Field 1 are required to complete 0.5 graduate-level FCE in political theory.
- All PhD students are required to complete 0.5 FCE in qualitative methods. This requirement may be waived on the basis of MA work.
- All PhD students who do not designate Political Theory as Field 1 are required to 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.
- All PhD students are required to complete a Dissertation Research Workshop worth 0.5 FCE in their second or third year. This requirement is non-waivable.
- **Major field examination.** All PhD students are required to complete Qualifying Field Examinations in Field 1 and Field 2 by the end of Year 2. The major field 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 examination must be taken no later than the second year of the Ph.D. program. A student who fails to achieve a grade of at least A- is permitted one opportunity to retake the examination. If, after failing the examination once, the major field is changed, the student is permitted two attempts to pass the examination in the 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. Those entering the program from a BA must do so by October 15 of their third year. By the beginning of the third year (fourth for direct-entry applicants) students must (a) have established a thesis committee of three faculty members including a thesis supervisor, and (b) have completed a thesis proposal of approximately 25 pages for submission to the thesis committee. 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 the fifth year (in the case of those admitted from an MA) or the sixth year (in the case of those admitted from a BA).
- **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 (course work, thesis proposal, Field 1 and Field 2 qualifying exams, and language requirements) by the end of Year 3 (or year 4 for those entering directly from an undergraduate program).
- All PhD students must achieve an A- average in course work and an A- in their field examinations to remain in good standing.

**Students with MA**

- Students should aim to complete PhD requirements within five years.
- 2.0 to 5.0 FCE depending on student's relevant background in the fields or area of choice. All PhD students are required to have at least 0.5 graduate FCE in political theory. 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. Most students who enter from the MA will take the equivalent of 4.0 FCE to satisfy program requirements; all PhD students must take a minimum of 2.0 FCE with the department after entering the PhD program.
- Minimum of three sessions in residence.

**Students with BA**

- Students should aim to complete PhD requirements within six years.
- 6.0 FCE 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 field requirements as described for those entering the PhD program with an MA.
- Minimum of six sessions in residence.

**Course List**

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. Theory Intensive Reading Courses are denoted with an asterisk (*).  

**Political Theory**

- **POL 2000Y** Comparative Studies in the History of Political Thought (core course)
- **POL 2001Y** Problems of Political Community
- **POL 2004Y** Marxism
- **POL 2006H** Studies in Modern Political Theory*
- **POL 2007H** Twentieth-Century Political Thought*
- **POL 2008Y** The Political Theory of G. W. F. Hegel*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>POL 2010H</td>
<td>Democratic Theory</td>
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<tr>
<td>POL 2011H</td>
<td>Problems in the Political Thought of the Socratic School</td>
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<tr>
<td>POL 2014H</td>
<td>The Problem of Natural Right</td>
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<td>POL 2016H</td>
<td>Topics in the Philosophy of Law</td>
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<tr>
<td>POL 2019Y</td>
<td>The Political Philosophy of Political Economy</td>
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<td>POL 2021Y</td>
<td>Comparative Studies in Jewish and Non-Jewish Political Thought</td>
</tr>
<tr>
<td>POL 2024H</td>
<td>Feminist Theory: Challenges to Legal and Political Thought</td>
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<tr>
<td>POL 2025H</td>
<td>Enlightenment and Its Critics*</td>
</tr>
<tr>
<td>POL 2027Y</td>
<td>Topics in Political Thought II</td>
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<tr>
<td>JPU 2028H</td>
<td>Approaches to Political Theory</td>
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<tr>
<td>POL 2030Y</td>
<td>The Spirit of Democratic Citizenship</td>
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<tr>
<td>POL 2032H</td>
<td>Judgement in Law and Politics*</td>
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<td>JPU 2036Y</td>
<td>Comparative Constitutionalism: Rights and Judicial Review</td>
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<td>POL 2037H</td>
<td>Law, Religion, and Public Discourse</td>
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<td>JPD 2037Y</td>
<td>Post-Modern and Contemporary Thought</td>
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<tr>
<td>POL 2038Y</td>
<td>Pluralism, Justice, and Equality</td>
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<tr>
<td>POL 2040H</td>
<td>Horizons of Political Reflection</td>
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<td>POL 2041Y</td>
<td>Politics of Origin</td>
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<tr>
<td>JPU 2047H</td>
<td>Comparative Constitutional Law and Politics</td>
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<tr>
<td>POL 2071H</td>
<td>The Political Thought of George Grant*</td>
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<td>POL 2083H</td>
<td>Cosmopolitanism*</td>
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<tr>
<td>POL 2127Y</td>
<td>Multiculturalism in Canada</td>
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<tr>
<td>PHL 2141H</td>
<td>Political Philosophy</td>
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<td>POL 2212H</td>
<td>Human Rights Politics and International Relations</td>
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<tr>
<td>POL 2226H</td>
<td>Ethics and International Relations</td>
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<tr>
<td>POL 2235H</td>
<td>Development, International Relations, Globalization: Through the Lens of a Gender</td>
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<tr>
<td>POL 2423H</td>
<td>Colonialism/Post-Colonialism: The Colonial State and its Forms of Power</td>
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<tr>
<td>POL 2801H</td>
<td>Special Topics</td>
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<tr>
<td>RLG 3622H</td>
<td>Maimonides and His Modern Interpreters</td>
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### Canadian Politics

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<tr>
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<tbody>
<tr>
<td>POL 2100Y</td>
<td>Government of Canada (core course)</td>
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<tr>
<td>POL 2102H</td>
<td>Topics in Canadian Politics I</td>
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<tr>
<td>POL 2103H</td>
<td>Topics in Canadian Politics II</td>
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<tr>
<td>POL 2110H</td>
<td>The Politics of Public Sector Budgeting</td>
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<tr>
<td>JPU 2121H</td>
<td>Federalism and Governance in Canada</td>
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<tr>
<td>POL 2125H</td>
<td>Experiencing Public Policy Making</td>
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<tr>
<td>POL 2126H</td>
<td>Canadian Public Sector Management</td>
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<tr>
<td>POL 2127Y</td>
<td>Multiculturalism in Canada</td>
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<tr>
<td>POL 2139H</td>
<td>The Canadian Welfare State in Comparative Perspective</td>
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<td>POL 2190Y</td>
<td>Topics in Canadian Politics I</td>
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<td>POL 2191Y</td>
<td>Topics in Canadian Politics II</td>
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<tr>
<td>JPU 2220H</td>
<td>Public Law, Social Regulation, and Poverty</td>
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<td>POL 2317H</td>
<td>Politics and Policy Analysis</td>
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<td>HAD 5011H</td>
<td>Canada’s Health System and Health Policy</td>
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<td>HAD 5765H</td>
<td>Case Studies in Health Policy</td>
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### International Relations

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<tr>
<td>POL 2200Y</td>
<td>International Politics (core course)</td>
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<tr>
<td>DGC 1000H</td>
<td>Core Issues in the Dynamics of Global Change</td>
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<tr>
<td>DGC 2000H</td>
<td>Special Topics in the Dynamics of Global Change</td>
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<td>DGC 2002H</td>
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<td>DGC 2003H</td>
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<td>JHP 1631H</td>
<td>Intelligence and International Relations</td>
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<td>JPU 2031H</td>
<td>Telecommunications and Internet Law</td>
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<td>JPU 2035H</td>
<td>International Taxation</td>
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<td>JPU 2037H</td>
<td>International Trade Regulation</td>
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<td>JPU 2039H</td>
<td>European Community Law</td>
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<td>JPU 2042H</td>
<td>Labour Policy</td>
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<td>JPU 2045H</td>
<td>Institutionalizing Doubt: Modernity and the Challenge to Traditional Legal Traditions</td>
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<td>JPU 2046H</td>
<td>Law, Institutions, and Development</td>
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<td>JPU 2048H</td>
<td>The Law and Praxis of International Human Rights</td>
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<td>JPU 2049H</td>
<td>Women's Rights in International Law</td>
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<td>JPU 2050H</td>
<td>Legal Issues in Cyberspace</td>
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<td>JPU 2051H</td>
<td>Foundations of the Law of the European Union</td>
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<td>POL 2202H</td>
<td>Advanced Topics in International Political Economy</td>
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<td>Topics in International Politics I</td>
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<td>POL 2206H</td>
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<td>POL 2207H</td>
<td>Topics in International Politics III</td>
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<td>POL 2208Y</td>
<td>Third World Politics in International Affairs</td>
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<td>POL 2210Y</td>
<td>Elements of United States Foreign Policy</td>
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<td>POL 2212H</td>
<td>Human Rights Politics and International Relations</td>
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<td>POL 2213H</td>
<td>Global Environmental Politics</td>
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<td>POL 2214H</td>
<td>Global Health in a Changing World</td>
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<td>POL 2216Y</td>
<td>The Military Instrument of Foreign Policy</td>
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<td>G8 and Global Governance I</td>
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<td>POL 2230H</td>
<td>G8 and Global Governance II</td>
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<td>The History and Philosophy of International Relations Thought</td>
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<td>JPD 2232H</td>
<td>Global Governance</td>
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<td>POL 2233H</td>
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<td>POL 2234H</td>
<td>Globalization, Internationalization, and Public Policy</td>
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<td>POL 2235H</td>
<td>Development, International Relations, Globalization: Through the Lens of a Gender</td>
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<td>POL 2240Y,H</td>
<td>The Geopolitics of Information and Communication Technologies</td>
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<td>POL 2260H</td>
<td>Security Ontology</td>
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<td>POL 2314H</td>
<td>Political Economy of Eastern Asia</td>
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<td>POL 2801H</td>
<td>Special Topics</td>
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</table>
Comparative Politics

POL 2300H Comparative Politics of Industrial Societies (core course)

POL 2700Y Comparative Politics (core course)

JPV 1201H Politics, Bureaucracy, and the Environment

JHP 1289Y Twentieth-Century Ukraine

JPJ 2036Y Comparative Constitutionalism: Rights and Judicial Review

JPJ 2047H Comparative Constitutional Law and Politics

JPJ 2121H Federalism and Governance in Canada

POL 2139H The Canadian Welfare State in Comparative Perspective

POL 2202H Advanced Topics in International Political Economy

POL 2234H Globalization, Internationalization, and Public Policy

POL 2302H Topics in United States Government and Politics

POL 2304Y Topics in Soviet and Post-Soviet Politics (exclusion to POL 2324H)

POL 2307H Political Economy of Technology: from the Auto-Industrial to the Information Age

POL 2308Y Politics and Governments of Eastern Europe

POL 2313Y Comparative Political Parties and Elections

POL 2314H Political Economy of Asia Pacific

POL 2316H Women and Politics

POL 2317H Politics and Policy Analysis

POL 2318H Comparative Public Policies: Selected Areas

POL 2321H Topics in Comparative Politics I

POL 2322H Topics in Comparative Politics II

POL 2322Y Topics in Comparative Politics II

POL 2323Y Multilevel Politics: The European Union in Comparative Perspective

POL 2324H Ethnonationalism and State-Building: The Communist and Post-Communist Experience (exclusion to POL 2304Y)

POL 2325Y The Politics of Post-Communism

POL 2326H Democracy and Dictatorship

POL 2338H Innovation and Governance

POL 2341H Political Economy of Transition: Ukraine and the CIS

POL 2344H Politics of Independent Ukraine

POL 2372H The Comparative Political Economy of Industrial Societies

POL 2391H Topics in Comparative Politics III

POL 2392H Topics in Comparative Politics IV

JPJ 2394H Innovation and Knowledge Transfer

POL 2411H Topics in Asian Politics

POL 2429H Nationalism, Ethnic Conflict, and Democracy

JPF 2430Y Cities

POL 2482H The Politics of Disease and Epidemic

Public Policy

POL 2318H Comparative Public Policy Theory (core course)

JPV 1201H Politics, Bureaucracy, and the Environment

POL 2110H The Politics of Public Sector Budgeting

POL 2125H Experiencing Public Policy Making

POL 2126H Canadian Public Sector Management

POL 2139H The Canadian Welfare State in Comparative Perspective

POL 2234H Globalization, Internationalization, and Public Policy

POL 2307H Political Economy of Technology: From the Auto-Industrial to the Information Age

POL 2317H Politics and Policy Analysis

JPJ 2394H Innovation and Knowledge Transfer

POL 2409H Politics and Planning in Third World Cities

POL 2482H The Politics of Disease and Epidemic

HAD 5011H Canada’s Health System and Health Policy

HAD 5765H Case Studies in Health Policy

Methods and Research Seminars

POL 2502Y Quantitative Methods and Data Analysis

POL 2503H Thinking Through Research Design

POL 2504H Statistics for Political Scientists

POL 2505H Qualitative Methods in Political Research

POL 2810Y MA Research Seminar I

POL 2811Y MA Research Seminar II

Independent Study and Special Topics

POL 2800H Intensive Course

POL 2801H Special Topics
Graduate Faculty

Full Members
Adler, Emanuel - PhD
Andersen, Robert - BA, MA, PhD
Balot, Ryan - BA, AM, PhD
Bashevkin, Sylvia - BA, MA, PhD
Batheit, Harold - MA, PhD
Beiner, Ronald - BA, DPhil
Bejarano, Ana Maria - BA, MA, MPH, PhD
Bernstein, Steven - PhD
Bertoldi, Nancy - BA, MA, PhD
Bertrand, Jacques - BA, MSc, MA, DRRERPOL
Braun, Aurel - BA, MA, PhD
Brudner, Alan S - BA, MA, PhD
Cameron, David - PhD (Chair & Graduate Chair)
CARENS, Joseph - AB, MPH, MPH, PhD
Chambers, Simone - BA, MPH, MA, PhD
Cook, David - BA, MA, PhD
Cunningham, Frank - BA, MA, PhD
Day, Richard - BA, MA, PhD
Deber, Raisa - BS, MS, PhD
Deibert, Ronald - BA, MA, DRRERPOL
Eyoh, Dickson - MA, PhD
Falkenheim, Victor - AB, MA, PhD
Fletcher, Joseph - BA, MA, PhD
Forbes, Donald - BA, MA, PhD
Haddow, Rodney - BA, MSc, PhD
HANDLEY, Aline - BA, MPH, PhD
Hassen, Randall - BA, MPH, PhD
HIRSCHL, Ran - BA, LLB, MA, MPH, PhD
Iton, Richard - BA, MA, PhD
Jung, Courtney - BA, MA, PhD
Kingston, Paul - BA, MA, MPH, DPhil
Kingston, Rebecca - BA, MA, PhD
Kirtor, John - BA, MA, PhD
Kopstein, Jeffrey - BA, MA, PhD
LeDuc, Lawrence - BA, MA, PhD
Magocsi, Paul - BA, MA, MA, PhD
Mccarney, Patricia - BA, MSc, PhD
Nedelsky, Jennifer R - BA, MA, PhD
NEVITTE, Neil - BA, MA, PhD
Orbinski, James - MA, MD
Orwin, Clifford - AB, AM, PhD
Pauly, Louis - BA, MA, MSc, MSc, PhD
Rayside, David - BA, MA, PhD
Roach, Kent - BA, LLB, LLM
Rubinoff, Arthur - BA, MA, PhD
Sandbrook, Richard - BA, MA, DPhil
Schatz, Edward - PhD
Schneiderman, David - BA, LLB, LLM
Schwartz, Donald - BA, MA, PhD
Shachar, Ayelet - LLB, BA, LLM, SJD
Simeon, Richard - BA, MA, PhD
Skogstad, Grace - DRRERPOL (Coordinator of Graduate Studies)
Solomon, Peter - BA, MA, PhD
Solomon, Susan - BA, MA, PhD
Sossin, Lorne - LLB, BA, LLM, MA, PhD, LLD
Stein, Janice - BA, MA, PhD
Teichman, Judith Ann - BA, MA, PhD
Vipond, Robert - BA, MA, AM, PhD
Weinrib, Lorraine - BA, LLB, LLM
Welch, David - BA, AM, PhD
White, Graham - BA, MA, PhD
White, Linda - BA, MA, PhD
Williams, Melissa - AB, AM, PhD
Wiseman, Nelson - BA, MA, PhD
Wolfe, David - BA, MA, PhD
Wong, Joseph - BA, MA, PhD

Members Emeriti
Andrew, Edward - BA, PhD
Clarkson, Stephen - BA, BA, MA, PhD
Donnelly, Michael - BSc, MA, PhD
Gregor, Richard - BA, MA, PhD
Griffiths, Franklyn Jc - BA, MIA, PhD
Horowitz, Gad - BA, PhD
Kontos, Alkis - MA, PhD
Manzer, Ronald - BEd, BA, MA, PhD
Matthews, Robert - BA, MIA, PhD
Pratt, R Cranford - BA, BPhil
Rotstein, Abraham - BA, PhD
Russell, Paul - BA, BEd, MA
Russell, Peter - BA, BA
Stren, Richard - BA, MA, PhD
Tuohy, Carolyn - BA, MA, PhD
Watkins, Melville - BCOM

Associate Members
Benjamin, Solomon - MArch, PhD
Borins, Sandford - BA, PhD
Breunig, Christian - MA, MA, PhD
Choudhry, Sujit - LLB, LLM
Gilady, Lilach - BA, MPH, MA, PhD
Henderson, Ailsa - PhD
Hoffmann, Matthew - BSc, PhD
Indart, Gustavo - BA, MA, PhD
Kohn, Margaret - BA, MA, PhD
Levine, Renan - BA, PhD
Marshall, Ruth - BA, MA, DPhil
Mwangi, Wambui - BA, MA, PhD
Norris, Carla - BS, MIR, MS, DRRERPOL
Ong, Lynette - BA, AM, PhD
Pond, David - PhD
Stark, Andrew - BA, MSc, AM, PhD
Triadafilopoulos, Phil (Triadafilos) - BA, MA, PhD
Way, Lucan Alan - BA, PhD
Wong, Wendy - PhD
Professional Graduate Programs Centre (Mississauga)

Faculty Affiliation
Professional Graduate Programs (Mississauga)

Degree Programs Offered
Management & Professional Accounting
– MMPA

Diploma Programs Offered
Investigative & Forensic Accounting - DIFA

Overview
The Master of Management & Professional Accounting (MMPA) 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. Advanced standing may be granted.

The Diploma in Investigative & Forensic Accounting (DIFA) provides a rigorous and comprehensive education in investigative and forensic accounting (IFA) matters useful in becoming an expert IFA consultant, practitioner, and expert witness in legal proceedings. Expertise may include financial matters related to investigation for fraud, calculation of damages, advisors in disputes, and preparers and deliverers of information to the courts. For students who are graduate Chartered Accountants, the diploma program is the educational gateway to the CA·IFA post-graduate specialist designation offered by the Canadian Institute of Chartered Accountants.

Contact and Address
Professional Graduate Program Centre
Web: www.utm.utoronto.ca/8398.0.html
E-mail: anna.reale@utoronto.ca
Telephone: (905) 569-4432
Fax: (905) 828-3979

University of Toronto at Mississauga
Room 3125, South Building
3359 Mississauga Road North
Mississauga, Ontario L5L 1C6
Canada

Management & Professional Accounting
Web: www.utoronto.ca/mmpa
E-mail: mmpa@utoronto.ca
Telephone: (905) 828-3985
Fax: (905) 569-4306

Room K108, Kaneff Centre
University of Toronto Mississauga
3359 Mississauga Road North
Mississauga, Ontario L5L 1C6
Canada

Investigative & Forensic Accounting
Web: www.utoronto.ca/difa
E-mail: difa@utoronto.ca
Telephone: (905) 569-4331
Fax: (905) 569-4306

Room K108, Kaneff Centre
University of Toronto Mississauga
3359 Mississauga Road
Mississauga, Ontario L5L 1C6
Canada

Degree Programs
Management & Professional Accounting

Master of Management & Professional Accounting

Minimum Admission Requirements
• Undergraduate degree equivalent to a four-year program at the University of Toronto with a standing equivalent to at least mid-B.
• Satisfactory GMAT score.
• Proof of English facility if the applicant's first language is not English. Details on English language requirements are available in this calendar.

Program Requirements
• Program runs for 27 months covering 7 sessions of full-time study, including 5 academic sessions and 2 co-op work placement sessions in accounting or finance related areas. The final session of the program will include a professional integrating experience (PIE) consisting of a four-week period in which students will complete one or more of the following:
Degree Programs by Graduate Unit

- attend the professional school of a professional accounting body, or
- write professional accounting examinations, or
- complete a consulting or work-term project

- All requirements for the degree must be completed within six years from the date of first enrolment.

Course List

Notations for all courses are indicated in parenthesis following the course code and are determined as follows:

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Notation</th>
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<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 5 weeks with 3 contact hours per week.

The department should be consulted each session as to course offerings.

MGT 1090H(0)+ Accounting Work-Term Course I
MGT 1102H(1) Business and Professional Ethics
MGT 1114H Management Information Systems
MGT 1115H Statistics for Management
MGT 1116H Economic Environment of Business
MGT 1210H(2) Managerial Economics
MGT 1211H(2) Economic Environment of Business
MGT 1221H(2) Accounting I
MGT 1222H(2) Managerial Accounting
MGT 1241H(2) Operations Management
MGT 1260H(2) Leadership in the Management of Teams
MGT 1272H(2) Management Information Systems
MGT 1301H(3) Fundamentals of Strategic Management
MGT 1323H(3) Auditing and Reporting
MGT 1330H(3) Business Finance
MGT 1350H(3) Marketing
MGT 1362H(3) Managing People in Organizations
MGT 1382H(3) Statistics for Management
MGT 2014H(2) The Legal Environment of Professions and Corporations
MGT 2070H(1) Management Consulting (elective course)
MGT 2090H(0)+ Accounting Work-Term Course II
MGT 2205H(3) Advanced Financial Accounting
MGT 2206H(3) Taxation I
MGT 2207H(2) Taxation II
MGT 2208H(1) Taxation III (elective course)
MGT 2224H(2) Computer Auditing
MGT 2225H(2) Advanced Auditing Topics
MGT 2250H(3) Financial Reporting I
MGT 2251H(3) Financial Reporting II
MGT 2260H(3) Management Control
MGT 2261H(2) Advanced Management Accounting
MGT 2273H(3) Accounting Information Systems
MGT 2280H(2) Accounting Theory and Research
MGT 2281H(1) Seminar in Professional Accounting
MGT 2282H(1) Integrative Cases in Professional Decision Making
MGT 2301H(2) Financial Management

Diploma Programs

Investigative & Forensic Accounting

Diploma of Investigative & Forensic Accounting

Minimum Admission Requirements

- Undergraduate degree equivalent to a four-year program at the University of Toronto, in Commerce, Business Administration, or Accounting, with a standing equivalent to at least a mid-B in the final undergraduate year.
- Two years of relevant experience in accounting.
- An advanced standing option is available for qualified students with comparable university-level or Chartered Business Valuator program courses.

Program Requirements

- 10 half-course program over a minimum 2.2 year period. Courses are taken sequentially and advanced standing course exemptions are possible. The program is offered using a combination of two one-week intensive in-residence sessions, e-learning and teleconference modules, with group discussions, assignments, and formal examinations. It is possible for students to participate from anywhere in the world.
- Advanced standing is available for qualified students; up to two courses in loss quantification and law may be counted.
- All requirements for the diploma must be completed within six years from the date of first enrolment.

Course List

IFA 1900H Introduction to Investigative and Forensic Accounting
IFA 1901H Investigative and Forensic Accounting Practice Issues
IFA 1902H Legal Process—Introductory
IFA 1903H Investigative-related Matters—Introductory
IFA 1904H Loss Quantification—Introductory
IFA 2900H Loss Quantification—Advanced
IFA 2901H Investigative-Related Matters—Advanced
IFA 2902H Legal Process—Advanced
IFA 2903H Advanced Topics/Emerging Issues
IFA 2904H Integrative Capstone

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Courses IFA 1900H and IFA 2904H each involve a mandatory in-residence session at the University of Toronto Mississauga. IFA 2904H requires participation in moot court and other experiential learning sessions. The remaining eight courses are offered via weekly online sessions.

Graduate Faculty

Management & Professional Accounting

Full Members
Aivazian, Varouj - BS, MA, PhD
Brooks, Leonard - BCOM, MBA (Program Director)
Li, Yue - BSc, MBA, PhD
Rotenberg, Wendy - PhD
Smieiauskas, Waldemar - BS, MS, PhD
Tombak, Mihkel - BS, MBA, AM, PhD
Wensley, Anthony - MA, MA, MBA, PhD

Associate Members
Allen, Guy - BA, MA, PhD
Weber, Mark - AB, MBA, AM, PhD

Diploma of Investigative & Forensic Accounting

Full Members
Brooks, Leonard - BCOM, MBA (Program Director)
Smieiauskas, Waldemar - BS, MS, PhD
Psychology

Faculty Affiliation
Arts and Science

Degree Programs Offered
Psychology - MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Psychology, MA, PhD
2. Aging, Palliative and Supportive Care Across the Life Course
   • Psychology, MA, PhD
3. Developmental Science
   • Psychology, MA, PhD
4. Neuroscience
   • Psychology, MA, PhD
5. Women's Health
   • Psychology, MA, PhD

Overview
Graduate training in psychology stresses training in general experimental psychology. Areas of specialization include the following:
• biology and behaviour
• perception, cognition, and cognitive neuroscience
• development
• social, personality, and abnormal psychology

Contact and Address
Web: www.psych.utoronto.ca
E-mail: grad@psych.utoronto.ca
Telephone: (416) 978-3404
Fax: (416) 978-4811

Department of Psychology
Graduate Studies
University of Toronto
Room 4034, Sidney Smith Hall
Toronto, Ontario M5S 3G3
Canada

Degree Programs

Psychology

Master of Arts

Minimum Admission Requirements
• Appropriate four-year University of Toronto bachelor's degree, or its equivalent 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 (FCE) in psychology including statistics and some laboratory experience.
• It is assumed that all students entering the master's program intend to continue in the PhD program.

Program Requirements
• One academic year of graduate study.
• Courses and individual research training leading to a thesis.
• In the MA year, students must complete the following 2.0 FCE as follows:
  o PSY 1000H Directed Studies to prepare for the MA thesis research
  o PSY 2001H Design of Experiments I, experimental design and statistics
  o two half-courses
• 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 normally required.

Doctor of Philosophy

Minimum Admission Requirements
• 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
• Minimum of two years of residence beyond the master's degree, but usually takes at least three years. Applicants with a master's degree from another university may be required to enrol in a three-year residence program.
• Individual programs of study are planned and include continuing research training with staff members. There is no language requirement.
• PSY 3000H Research Project in Psychology - usually taken in PhD 1. This is a research project course supervised by a faculty member other than the student's PhD supervisor. It is a one-session course spread over PhD 1.
• PSY 3001H Scientific and Professional Psychology - usually taken in PhD 1.
- An advanced statistics course chosen from a list provided by the Department.
- Two half-courses.
- PSY4000H. Thesis proposal and oral exam (examination in the student's area of specialization).
- PhD thesis.
- Students may take other courses as they wish, but it is expected that the requirements will be completed in the first two years of the PhD program. Students admitted with an MA from another university will normally be required to fulfill the Ph.D. requirements; however, exemptions may be granted by the graduate director of the Department of Psychology.

**Course List**
Not all courses are offered each year. For current offerings, consult the Coordinator of Graduate Studies.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>PSY 1000H</td>
<td>Directed Studies</td>
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<tr>
<td>PSY 1200H,Y</td>
<td>Selected Topics in Psychology</td>
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<tr>
<td>PSY 1500H</td>
<td>Conceptual Bases of Psychology</td>
</tr>
<tr>
<td>PSY 2001H</td>
<td>Design of Experiments I</td>
</tr>
<tr>
<td>PSY 2002H</td>
<td>Design of Experiments II</td>
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</tbody>
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**Biology and Behaviour**

**Core Courses**
- PSY 5101H Mechanisms of Behaviour
- PSY 5102H Motivational Processes
- PSY 5103H Learning and Plasticity
- PSY 5104H Neuropsychology

**Advanced Courses**
- PSY 5110H Advanced Topics in Behavioural Neuroscience I
- PSY 5111H Advanced Topics in Behavioural Neuroscience II
- PSY 5112H Advanced Topics in Behavioural Neuroscience III
- PSY 5120H Advanced Topics in Animal Behaviour and Motivation I
- PSY 5121H Advanced Topics in Animal Behaviour and Motivation II
- PSY 5122H Advanced Topics in Animal Behaviour and Motivation III
- PSY 5130H Advanced Topics in Neuropsychology I
- PSY 5131H Advanced Topics in Neuropsychology II
- PSY 5132H Advanced Topics in Neuropsychology II

**Perception/Cognition/Cognitive Neuroscience**

- Courses which may continue over a program. The course is graded when completed
- Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

**Core Courses**
- PSY 5201H Audition
- PSY 5202H Vision
- PSY 5203H Higher Cognition
- PSY 5204H Attention
- PSY 5205H Memory

**Advanced Courses**
- PSY 5210H Advanced Topics in Perception I
- PSY 5211H Advanced Topics in Perception II
- PSY 5212H Advanced Topics in Perception III
- PSY 5220H Advanced Topics in Cognition I
- PSY 5221H Advanced Topics in Cognition II
- PSY 5222H Advanced Topics in Cognition III

**Developmental Psychology**

**Core Courses**
- PSY 5300H History, Theory and Methods of Developmental Psychology
- PSY 5301H Biological Development
- PSY 5302H Perceptual Development
- PSY 5303H Cognitive Development
- PSY 5304H Language Development
- PSY 5305H Social Development

**Advanced Courses**
- PSY 5310H Advanced Topics in Development I
- PSY 5311H Advanced Topics in Development II
- PSY 5312H Advanced Topics in Development III
- PSY 5313H Advanced Topics in Development IV

**Social/Personality/Abnormal Psychology**

**Core Courses**
- PSY 5401H Abnormal
- PSY 5402H Personality
- PSY 5403H Social Cognition
- PSY 5404H Interpersonal and Group Behaviour

**Advanced Courses**
- PSY 5410H Advanced Topics in Abnormal I
- PSY 5411H Advanced Topics in Abnormal II
- PSY 5412H Advanced Topics in Abnormal III
- PSY 5420H Advanced Topics in Personality I
- PSY 5421H Advanced Topics in Personality II
- PSY 5422H Advanced Topics in Personality III
- PSY 5430H Advanced Topics in Social Psychology I
- PSY 5431H Advanced Topics in Social Psychology II
- PSY 5432H Advanced Topics in Social Psychology III
- PSY 5433H Advanced Topics in Social Psychology IV
- PSY 5400H* Research Project in Psychology
- PSY 3001H Professional Psychology (Credit/No Credit)
- PSY 3002H Teaching Practicum (Credit/No Credit)
- PSY 4000H* Specialization Study (Credit/No Credit)
- PSY 4700H Psychology Testing and Assessment I
- PSY 4701H Psychology Testing and Assessment II
- PSY 4705H Psychological Assessment of Children
- PSY 4710H Practicum in Testing and Assessment (Credit/No Credit)
**Cross-Listed Courses**

- **CSC 2535H** Computation in Neural Networks
- **JLP 2450H** Psycholinguistics
- **JNS 1000Y** Fundamentals of Neuroscience: Systems and Behaviour
- **JNS 1001H** Neuroanatomy of Mind
- **JPX 1001Y** Parenting: Multidisciplinary Perspectives
- **JPM 1005Y** Behavioural Pharmacology
- **ZOO 2215Y** Insect Behaviour

**Graduate Faculty**

**Full Members**

- Alain, Claude - BA, MA, PhD
- Anderson, Adam - BA, PhD
- Anderson, Nicole - BA, MA, PhD
- Astington, Janet - BSc, BA, MA, PhD
- Barense, Morgan - BA, PhD
- Bassili, John - BA, PhD
- Blankstein, Kirk - BA, MA, PhD
- Bors, Douglas - AB, AM, DPhil, PhD
- Chambers, Craig - BA, MA, MA, PhD
- Chasteen, Alison - BA, PhD
- Cote, Stephane - PhD
- Cree, George Scott - BA, MA, PhD
- Cunningham, John - BSc, MA, PhD
- Cupchik, Gerald Chaim - BA, MA, PhD
- Daneman, Meredyth - BA, MA, PhD
- De Rosa, Eve - BA, PhD
- Dennis, Maureen - BA, MA, PhD
- Dion, Karen - BA, PhD
- Dunbar, Kevin - BA, MA, PhD
- Einstein, Gillian - AB, PhD
- Erb, Suzanne - DPhil
- Ferber, Susanne - MPSY, PhD (Graduate Director)
- Fleming, Alison - BS, PhD
- Fletcher, Paul - BSc, DPhil
- Fournier, Marc - BA, PhD
- George, Tony - BSc, MD
- Gerlai, Robert - MSc, PhD
- Grady, Cheryl - BA, MA, PhD
- Grusec, Joan - BA, PhD
- Haley, David - BA, MPSY, PhD
- Hasher, Lynn - AB, PhD
- Helwig, Charles - BA, PhD
- Herman, C Peter - BA, PhD
- Hetherington, C Ross - BSc, MA, PhD
- Inzlicht, Michael - BS, MS, PhD
- Jenkins, Jennifer - BA, MA, PhD
- Johnson, Elizabeth - PhD
- Joordens, Steve - BA, MA, PhD
- Kennedy, John - BSc, MSc, PhD
- Kraemer, Gary - PhD
- Latham, Gary - BA, MS, PhD

Levine, Brian - BA, MA, PhD
Lewis, Marc - BA, MA, PhD
Lockwood, Penelope - BA, MA, PhD
Lovett, Maureen - BSc, MSc, PhD
Mabbott, Donald - PhD
MacDonald, Geoffrey - BA, PhD (Associate Graduate Director)
McAndrews, Mary Patricia - BSc, MA, PhD
McIntosh, Anthony Randal - BSc, MSc, PhD
Milgram, Norton - BSc, MSc, PhD
Monks, Ashley - BSc, MA, PhD
Moraglia, Giampaolo - BPhil, MA, MS, PhD
Moscovitch, Morris - BSc, MA, PhD (Graduate Chair)
Niemeier, Matthias - MA, PhD
Nobrega, Jose - PhD
Nussbaum, David - BA, MA, PhD
Peterson, Jordan - BA, BA, PhD
Petitt, Ted - BS, MA, PhD
Petitto, Laura Ann - BSc, MPSY, MA, PhD
Pichora-Fuller, Kathy - AB, MS, DPhil
Pleks, Jason - BA, MA, MPH, PhD
Pliner, Patricia - PhD
Polivy, Janet - BS, MA, PhD
Pratt, Jay - BA, MS, PhD
Ralph, Martin - BSc, PhD
Ravindran, Arun - PhD
Reingold, Eyal - PhD
Rovet, Joanne - BSc, PhD
Ryan, Jennifer - BS, PhD
Schellenberg, Glenn - BSc, PhD
Schimmack, Ulrich - DPhil
Schmuckler, Mark - BA, PhD
Schneider, Bruce - BA, PhD
Shettleworth, Sara - BA, MA, PhD
Shuper, Paul - BA, MA, PhD
Smith, Marylou - BSc, MSc, PhD
Smyth, Ronald - BA, MSc, PhD
Spence, Ian - MA, MA, PhD
Stuss, Donald - BPhil, MA, PhD
Tackett, Jennifer - BA, MA, PhD
Tafarodi, Romin - BA, PhD
Thompson, William - BS, AM, DPhil
Vaccarino, Franco - BSc, MSc, PhD
van Lieshout, Pascal - MA, MA, PhD
Winocur, Gordon - BA, MA, PhD
Yeomans, John - BA, PhD
Zakzanis, Konstantine - BA, AM, DPhil
Zelazo, Philip - PhD
Zucker, Kenneth - MA, PhD

**Members Emeriti**

- Abramovitch, Rona - BA, MA, PhD
- Craik, Fergus - BSc, PhD
- Freedman, Jonathan - BA, PhD
- Lockhart, Robert - BA, MA, PhD
- Smith, Marilyn - BA, PhD
- Trehub, Sandra - BComm, MA, PhD
- Tulving, Endel - BA, MA, PhD

**Associate Members**

- Keightley, Michelle - BSc, MA, PhD
Public Health Sciences

Faculty Affiliation
Medicine

Degree Programs Offered
Public Health Sciences – MPH, MSc, MScCH, PhD

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

1. Aboriginal Health
   • Public Health Sciences, MPH, MSc, PhD
2. Addiction Studies
   • Public Health Sciences, MPH, MSc, PhD
3. Aging, Palliative and Supportive Care Across the Life Course
   • Public Health Sciences, MPH, MSc, PhD
4. Bioethics
   • Public Health Sciences, MPH, MSc, PhD
5. Community Development
   • Public Health Sciences, MPH
6. Environment and Health
   • Public Health Sciences, MPH, MSc, PhD
7. Global Health
   • Public Health Sciences, PhD
8. Health Care, Technology and Place
   • Public Health Sciences, PhD
9. Health Services and Policy Research
   • Public Health Sciences, MPH, MSc, PhD
10. Sexual Diversity Studies
    • Public Health Sciences, MPH, MSc, PhD
11. Women and Gender Studies
    • Public Health Sciences, MPH, MSc, PhD
12. Women’s Health
    • Public Health Sciences, MPH, MSc, PhD

Overview
At press time, the degree name change to the Master of Public Health (from Master of Health Science) was pending final approval.

On April 30, 2008 President David Naylor announced the creation of the University of Toronto’s new Dalla Lana School of Public Health (DLSPH). Funded by a generous $20 million gift from Torontonians Paul and Alessandra Dalla Lana, the School is now home to the largest Canadian hub for public health education.

The new School has over 300 graduate students and offers both master’s and doctoral degrees. In addition, we have over 40 postgraduate students in our two Royal College Residency Programs: Community Medicine and Occupational Medicine. The School is also engaged in undergraduate programs, teaching in the Faculty of Medicine, Faculty of Arts and Science, Bloomberg Faculty of Nursing, and Faculty of Dentistry.

The Graduate Department of Public Health Sciences at the Dalla Lana School of Public Health offers four graduate degrees, available both full time and part time. Applicants are strongly advised to have some background in statistics and quantitative methods. In addition, field and employment experience are taken into consideration, especially for the Master of Public Health (MPH) degree. Further information is available on the departmental Web site: www.sph.utoronto.ca.

The Master of Public Health (MPH) degree is designed for students interested in professional and/or research careers in the community, academic, public, or private sectors. Four specializations are offered:
1. Epidemiology
2. Community Nutrition
3. Health Promotion (Social and Behavioural Health Sciences)
4. Occupational and Environmental Health

The Master of Science (MSc) degree is for students interested in research and academic careers in Biostatistics.

The Master of Science in Community Health (MScCH) degree is restricted to practising health professionals. Six specializations are offered:
1. Addictions and Mental Health
2. Family and Community Medicine
3. Health Practitioner Teacher Education
4. Occupational Health Care
5. Public Health Nutrition
6. Wound Prevention and Care

The Doctor of Philosophy (PhD) degree prepares students for research and academic careers in the Public Health Science disciplines. Specializations include:
1. Biostatistics
2. Epidemiology
3. Social and Behavioural Health Sciences

The PhD program may be completed on a full-time or flexible-time basis.

Contact and Address
Web: www.sph.utoronto.ca
E-mail: dlsph.grad@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
Degree Programs

Public Health Sciences

Master of Public Health

Minimum Admission Requirements
• Appropriate four-year undergraduate 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.
• Each specialization has unique requirements; refer to the Web site for details.
• Applications must be submitted by February 1.

Program Requirements
• 10.0 full course equivalents (FCE), of which 0.5 FCE is a core subject and at least 1.0 FCE is a field practicum.
  o Full-time students, depending on the area of specialization, require between 16 and 22 months to complete the program, including time spent in field practica. Specific program requirements, course sequences, and options vary by area of specialization and are fully explained on the Web site.
  o Part-time students have a maximum of six years to complete the program.

Doctor of Philosophy

Minimum Admission Requirements
• 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.
• Applications must be submitted by January 15.
• Consult the Web site for details.

Program Requirements
• Course requirements vary by specialization and are related to the student's knowledge of the field. Consult the Web site.
• Successful completion of formal examinations and other assessments at specified points within the program to ensure continuation in the program.
• Proficiency in statistics or research methods.
• A written comprehensive examination in the major area of specialization.
• Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus two additional faculty members).
Degree Programs by Graduate Unit

- The oral defence of the thesis before an examination committee appointed by the School of Graduate Studies.
- Completion of all degree requirements within six years from first registration in the program.

Flexible-Time PhD
- 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 and/or familial obligations.
- Degree requirements for the flexible-time program are identical to those for the full-time PhD program.
- A plan of study and research activities will be negotiated at initial registration, to be reviewed and updated annually.
- Students have up to eight years to complete the program. They are required to register full-time for the first four years of their program. Thereafter, they may register part-time.

Course List

Core Courses
CHL 5004H Introduction to Public Health Sciences

Biostatistics and Demography
CHL 5201H Introductory Biostatistics for Students in Biological Sciences I
CHL 5202H Introductory Biostatistics for Students in Biological Sciences II
CHL 5203H Public Health Research Methods
CHL 5204H Survey Methods in Health Sciences II
CHL 5207Y Laboratory in Statistical Design and Analysis
CHL 5208Y Advanced Laboratory in Statistical Design and Analysis
CHL 5209H Survival Analysis I
CHL 5210H Categorical Data Analysis
CHL 5220H Community Health Appraisal Methods I
CHL 5221H Community Health Appraisal Methods II
CHL 5222H Longitudinal Data Analysis
CHL 5223H Applied Bayesian Methods
CHL 5224H Statistical Genetics
CHL 5225H Advanced Statistical Methods for Clinical Trials
CHL 5250H Special Topics in Biostatistics

Community Nutrition
Courses offered by the Department of Nutritional Sciences

NFS 1201H Field Observation and Nutrition Program Laboratory I
NFS 1209H Field Observation and Nutrition Program Laboratory II
NFS 1211H Community Nutrition
NFS 1216H Selected Topics in Nutrition
NFS 1218H Recent Advances in Nutritional Sciences I
NFS 1219H Recent Advances in Nutritional Sciences II
NFS 1220H Clinical Nutrition
NFS 1221H Nutrition Programs and Strategies
NFS 1484H Advanced Nutrition

Epidemiology
CHL 5401H Epidemiologic Methods I
CHL 5402H Epidemiologic Methods II
CHL 5403H Epidemiology of Non-Communicable Diseases
CHL 5404H Research Methods I
CHL 5405H Assessment of Community Health Needs
CHL 5406H Quantitative Methods for Biomedical Research
CHL 5408H Research Methods II
CHL 5409H Cancer Epidemiology
CHL 5410H Occupational Epidemiology
CHL 5411H International Health
CHL 5412H Communicable Disease Epidemiology I: Principles
CHL 5413H Public Health Sanitation
CHL 5414H Additional Topics in Epidemiology of Non-Communicable Diseases
CHL 5415H Communicable Disease Epidemiology II: Practice
CHL 5416H Environmental Epidemiology
CHL 5417H Tobacco and Health: From Cells to Society
CHL 5418H Scientific Overview in Epidemiology
CHL 5419H Empirical Perspectives on Social Organization and Health
CHL 5420H Global Health Research
CHL 5421H Aboriginal Health
CHL 5422H Applied Epidemiology and Public Health Policy
CHL 5423H Doctoral Series in Epidemiology
CHL 5424H Advanced Quantitative Methods in Epidemiology
CHL 5450H Special Topics in Epidemiology

Family Medicine
CHL 5601H Teaching Evidence-Based Family Medicine in the Clinical Setting
CHL 5602H Working with Families in Family Medicine
CHL 5603Y Social, Political, and Scientific Issues in Family Medicine
CHL 5604H Human Development Issues for Family Medicine
CHL 5605H Research Issues in Family Medicine/Primary Care
CHL 5606H Research in Family Medicine/Primary Care Methodological Applications
CHL 5607H Teaching and Learning by the Health Professions: Principles and Theories

Courses which may continue over a program. The course is graded when completed.
<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<td>CHL 5608H</td>
<td>Teaching and Learning by the Health Professions: Practical Issues and Approaches</td>
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<td>CHL 5102H</td>
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**Practica and Related Courses**

- **CHL 5801H**: Health Promotion Strategies
- **CHL 5802H**: Health Behaviour Change
- **CHL 5803H**: Critical Issues in Health Promotion Practice
- **CHL 5804H**: Health Promotion Practice Field Inquiry
- **JXP 5807H**: Health Communications

**Occupational and Environmental Health**

- **CHL 5902H**: Advanced Occupational Hygiene
- **CHL 5903H**: Environmental Health
- **CHL 5904H**: Perspectives in Occupational Health and Safety—Legal and Social Context
- **CHL 5907H**: Radiological Health
- **CHL 5910H**: Occupational and Environmental Hygiene I
- **CHL 5911H**: Occupational and Environmental Hygiene II
- **CHL 5912H**: Industrial Toxicology
- **CHL 5914H**: Physical Agents I—Noise
- **CHL 5915H**: Control of Occupational Hazards
- **CHL 5916H**: Environmental Health Policy
- **CHL 5917H**: Concepts in Safety Management
- **CHL 5918H**: Biological Hazards in the Workplace and Community
- **CHL 5950H**: Special Topics in Occupational and Environmental Health

**Public Health Policy**

- **CHL 5300H**: Public Health Policy

**Social and Behavioral Health Sciences**

- **CHL 5101H**: Social Theory and Health
- **CHL 5102H**: Social and Political Forces in Health
- **CHL 5109H**: Gender and Health

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

Full Members
Abel, Sharon - BA, MA, PhD
Allison, Kenneth - MHSc, MSc, PhD
Badley, Elizabeth - BSc, MSc, PhD
Beitchman, Joseph - MDCM
Benatar, Solomon - MD
Bigelow, Philip - BS, MHSc
Birn, Anne-Emanuelle - BA, MA, DSc
Bondy, Susan - BA, MSc, PhD
Boyd, Norman - MD
Bull, Shelley - BMATH, MMath, PhD
Calzavara, Liviana - BA, MA, PhD
Cassidy, David - BSc, MSc, PhD
Chalin Clark, Catherine - BSN, MA, MDiv, PhD
Chiarelli, Anna Maria - BSc, MHSc, DPhil
Cohen, Joanna - BSc, MHSc, PhD
Colantonio, Angela - BA, BSc(OT), MHSc, PhD
Cole, Donald - MSc, MD
Corey, Mary - BSc, PhD
Corey, Paul - BSc, MA, PhD (Coordinator of Graduate Studies)
Cott, Cheryl - DIPP, BPT, MSc, PhD
Cotterchio, Michelle - BSc, MPH, MSc, PhD, DPH
Cunningham, John - BSc, MA, PhD
Cusimano, Michael - MHPE, MD, PhD
Daar, Abdallah - MD
Diamond, Miriam - MSc, MSc, PhD
Eakin, Joan - BA, MA, PhD
Einstein, Gillian - AB, PhD
Escobar, Michael - BS, PhD
Evans, Michael - BSc, MSc, PhD
Eyssen, Gail - BSc, MSc, MSc, PhD
Ferguson, Bruce - BA, MA, PhD
Ferrence, Roberta - BA, MA, PhD
Ferris, Lorraine - AB, MA, LLM, LLM, PhD
Fischer, Benedikt - DPhil
Fox, Bonnie - AB, PhD
Frank, John - BSc, MSc, MD
Gastaldo, Denise - BSN, MA, PhD
Gignac, Monique - BSc, MA, PhD
Glazier, Richard - MPH, MD
Goel, Vivek - BSc, MSc, SM, MD
Goodstadt, Michael Stephen - BA, PhD
Harvey, Bart - MSc, MD, PhD
Hogg-Johnson, Sheila - BMATH, MMath, PhD
Holness, D Linn - MHSc, MD
Jadad, Alejandro - MD, DPhil
Karmali, Mohamed - MBChB
Knight, Julia - MSc, PhD
Knight, Keith - PhD
Kreger, Nancy - BA, MPH, PhD
Lavery, James - BA, BS, PhD
Levinson, Wendy - BSc, MD
Lou, Wen-Yi - DPhil
Love, Rhonda - BA, MA, PhD
Mandel, Jack - BSc, MPH, PhD (Graduate Chair & Director of Dalla Lana School of Public Health)
Massam, Helene - BSc, MSc, PhD
Mcdonough, Peggy - BSN, BSc, MSc, PhD
McGeer, Allison - BSc, MSc, MD
McKeever, Patricia - BN, MSA, DPhil
Mclaughlin, John Ross - BSc, MSc, PhD
Millson, Margaret - BSc, MHSc, MD
Minkin, Salomon - BSc, MSc, PhD
Muntaner, Carles - MHSc, MD, PhD
Mustard, Cameron - AB, SCD
Myers, Ted - BA, MSW, MSc, PhD
Narod, Steven - BSc, MD
Naylor, C. David - MD, PhD
Neal, Radford - BSc, MSc, PhD
Noyek, Arnold - MD
OCampo, Patricia - PhD
Oliveri, Nancy - MD
Peter-Hardtke, Elizabeth - BA, BSN, MSN, PhD
Poland, Blake - BA, PhD
Polatajko-Howell, Helene - PhD
Purdham, James - BSc, PhD
Rabeneck, Linda - MD
Rappolt, Susan - BSc(OT), MSc, PhD
Rehm, Jurgen - PhD
Reid, Nancy - BM, MSc, PhD
Remis, Robert - BSc, MPH, MD
Robertson, Ann - BSc, MSc, PhD
Rossner, Walter - MD
Rush, Brian - PhD
Sakinofsky, Isaac - DPM, MBChB, MD
Sass-Kortse, Andrea - BSc, MHSc, PhD
Schneider, Margaret - BA, MA, PhD
Sellen, Daniel - BA, AM, PhD
Shaw, Brian - SB, MA, PhD
Silverman, Frances - PhD
Single, Eric - BA, PhD
Skinner, Harvey - BA, MA, PhD
Smylie, Janet - MPH
Stafford, James - BS, MS, PhD
Streiner, David - PhD
Strike, Carol - PhD
Sun, Lei - BS, PhD
Tarsuk, Valerie - BA, BEd, BASc, MSc, PhD
Tarlo, Susan - MBBS
Tepperman, Lorne - BA, MA, PhD
Thomas, Scott - BSc, MSc, PhD
To, Teresa - BA, MA, PhD
Tomlinson, George - PhD
Tritchler, David - BA, MS
Vachon, Mary - BS, BS, BA, MS, MA, PhD
Valverde, Mariana - BA, MA, PhD
Wheaton, Blair - PhD
Willan, Andrew - PhD
Young, Kue - DPMED, PhD
Zakus, David - BS, MES, MSc, PhD
Zlotkin, Stanley - BSc, MD, PhD

Members Emeriti
Andrews, David - BSc, MSc, PhD
Ashley, Mary Jane - DPH, MSc, MD
Badgley, Robin - BA, MA, PhD
Baines, Cornelia - MSc, MSc, MD
### Degree Programs by Graduate Unit

**Public Health Sciences**

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<tr>
<th>Name</th>
<th>Degree(s)</th>
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<tr>
<td>Chipman, Mary</td>
<td>BSc, MA</td>
</tr>
<tr>
<td>Clarke, E Aileen</td>
<td>MSc, MB</td>
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<tr>
<td>Coburn, David</td>
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<td>Kelner, Merrijoy</td>
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<td>Marshall, Victor</td>
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<td>Shah, Chandrakant</td>
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### Associate Members

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<tr>
<td>Abdolell, Mohamed</td>
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<td>Meier, Rosemary</td>
<td>DPM, LMCC, MSc, MCBchB</td>
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<td>Nathanson, Cynthia</td>
<td>BA, MSW</td>
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<td>Nicoll, Peter</td>
<td>BASc, BASc</td>
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<td>Nisenbaum, Rosane</td>
<td>BSc, MSc, PhD</td>
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<td>Nixon, Stephanie</td>
<td>BHSC(P/T), BA, PhD</td>
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<td>Ofner, Marianne</td>
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<td>Orbinski, James</td>
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<td>Pasut, George</td>
<td>MHS, MD</td>
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<td>Paterson, Andrew</td>
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<td>Pennick, Victoria</td>
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</tr>
<tr>
<td>Pole, Jason</td>
<td>BSc, MSc, PhD</td>
</tr>
<tr>
<td>Popova, Svetiana</td>
<td>MPH, MSD, DSW, MEDSCD</td>
</tr>
<tr>
<td>Pron, Gaylene</td>
<td>BSc, MSc, PhD</td>
</tr>
</tbody>
</table>
Rachlis, Michael - MSc, MD
Ratnapalan, Savithiri - MEd, MBBS
Rhodes, Anne - PhD
Richardson, Denyse - MEd, MD
Riley, Diane - BA, MA, PhD
Ritvo, Paul - PhD
Room, Robin - MA, PhD
Roth, Yehudah - MD
Schwartz, Robert - BA, PhD
Scott, Fran - BSc, MSc, MD, MD
Scott, Fran - BSc, MSc, MD, MD
Scott, James - BSc, PhD
Scott, Jeremy - PhD
Selby, Peter - MHSc, MBBS
Shain, Martin - DIPCRIM, BA, MA, SJD
Sibbald, R. Gary - MD
Singh, Jerome - BA, LLB, MHSc, LLM, PhD
Smith, Lesbia - BS, MD
Smith, Peter - BASc, MPH, PhD
Stephens, Derek - BSc, BA, MSc
Strug, Lisa - BS, BA, SM, PhD
Sullivan, Terrence - BS, MA, PhD
Sutradhar, Rinku - BSc, MMath, PhD
Talbot, Yves - BA, MD
Tamblyn, Susan - MD, DPH
Tanner, Scott - BSc, PhD
Thompson, Alison - BA, MA, PhD
Thorsteinssdottir, Halla - PhD
Tompa, Emile - BEC, MEC, PhD
Travers, Robert - BA, MA, PhD
Turner, Nigel - BA, MA, PhD
Upshur, Ross Edward - BSc, BA, MA, MD
Wang, Lisa - BEng, MSc
Wieman, Cornella - DRMED
Windrim, Patricia - LMCC, MBChB
Woo, Kevin - BSc, MN
Yoshida, Karen - BSc, BPHE, MSc, PhD
Yu, Catherine - MD
Yuan, Lilian - MSc, MD, DHA
Zack, Martin - PhD
Public Policy and Governance

Faculty Affiliation
Arts and Social Science

Degree Programs Offered
Public Policy and Governance - MPP

Overview
An interdisciplinary program is offered by the School of Public Policy and Governance leading to a Master of Public Policy degree. The program provides professional education in two fields of specialization: Social and Economic Policy (domestic) and Global Public Policy.

The MPP is offered as a 20-month program featuring core instruction on a small-group, cohort-based model. In addition to the core of material considered essential for policy practice, students take elective courses within either of the two fields of specialization, each of which cuts across critical policy sectors such as health, education, cities, and the environment. Integrating seminars are led by faculty members. Invited visiting public sector leaders and external researchers bridge theory and practice, providing contact with senior professionals in government and the broader public, private, and community sectors.

The program also provides access to courses and research facilities available in many other graduate departments, centres, and institutes across the University.

Contact and Address
Web: www.publicpolicy.utoronto.ca
E-mail: public.policy@utoronto.ca
Telephone: (416) 978 5120
Fax: (416) 978 5079

School of Public Policy and Governance
University of Toronto
Canadiana Building
Third floor, 14 Queen’s Park Crescent West
Toronto, Ontario M5S 3K9
Canada

Degree Programs

Public Policy and Governance

Master of Public Policy
At press time, program requirements for the MPP program were pending final approval.

Minimum Admission Requirements
- Four-year University of Toronto bachelor’s degree with at least an overall B+ standing in the final year, or its equivalent from a recognized university, is required for admission to the 20-month program.
- Program is open to applicants of all disciplinary backgrounds. A basic competency in mathematics and a basic understanding of the Canadian political system are assumed. Applicants without such preparation should consult with the program director. University-level courses in these areas are not required for admission.

Program Requirements
Students normally:
- Complete 8.0 Full Course Equivalents (FCE) including 6.0 FCE (see required core courses listed below);
- 2 FCE within one of two fields of specialization chosen from the list of electives offered by university-wide graduate units;
- PPG 2006Y (a mandatory internship) normally completed in the summer between first and second year or during the second year. The internship research report is graded on a credit/no-credit basis.

Course List

Required Core Courses
PPG 1000H Governance and Institutions
PPG 1001H The Policy Process
PPG 1002H Microeconomics for Policy Analysis
PPG 1003H Macroeconomics for Policy Analysis
PPG 1004H Quantitative Methods for Policy Analysis
PPG 1005H The Social Context of Policy-making
PPG 1007H Putting Policy into Action: Strategic Implementation of Public Objectives
PPG 2001H Integrating Seminars - Current Issues/Problems in Public Policy and Practice
PPG 2002H Integrating Seminars - Current Issues/Problems in Public Policy and Practice
PPG 2003H Capstone Course: Integrating Issues in Public Policy
PPG 2011H Ethics and the Public Interest
FIS 1210H Information and Its Social Contexts
POL 2234H Globalization, Internationalization, and Public Policy

Elective Courses offered by the School of Public Policy and Governance. Please see SPPG Web site for updated elective courses in 2009/2010 offered by university-wide graduate units.

PPG 2010H Panel Methods for Public Policy Analysis
PPG 2012H Topics in Public Policy

Internship
PPG 2006Y MPP Internship
Graduate Faculty

Full Members
Anderson, Geoff - MD
Baker, Michael - BComm, MA, PhD
Benjamin, Dwayne - BSc, MA, PhD
Byer, Philip - BS, MS, PhD
Cameron, David - PhD
Carter, Michael - BM, MMath, PhD
Choudhry, Sujit - LLB, LLM
Coyte, Peter C - BA, MA, PhD
Duff, David Grant - BA, LLB, MEC, LLM, MA
Flood, Colleen - LLB, LLM, SJD
Gunderson, Morley - BA, MA, PhD
Haddow, Rodney - BA, MSc, PhD
Hansen, Randall - BA, MPH, PhD
Heath, Joseph - BA, MA, PhD
Karney, Bryan - BSc, MEng, PhD
Leithwood, Kenneth - BA, BPHE, MPE, PhD
Levin, Benjamin - BA, MEd, PhD
MacLean, Heather - BASc, MASc, MBA, PhD
Miller, Eric - BASc, MASc, PhD
Myles, John - BA, BTH, MA, PhD
Nevitte, Neil - BA, MA, PhD
Oreopoulos, Phillip - BA, MA, PhD
Peng, Ito - BSW, BSc, MA, PhD
Perlman, Michal - BA, MA, PhD
Pesando, James - BA, MA, PhD
Reeve, Douglas - BSc, MASc, PhD
Reitz, Jeffrey - PhD
Simeon, Richard - BA, MA, PhD
Skogstad, Grace - DRRERPOL
Smart, Michael - BA, BA, PhD
Sossin, Lorne - LLB, BA, LLM, MA, PhD, LLD
Stabile, Mark - MA, MPH, PhD (Director)
Stefanovic, Ingrid - BA, MA, PhD
Stein, Janice - BA, MA, PhD
Trebilcock, Michael - LLB, LLM
White, Graham - BA, MA, PhD
White, Linda - BA, MA, PhD
Williams, Melissa - AB, AM, PhD
Wolfe, David - BA, MA, PhD
Wong, Joseph - BA, MA, PhD

Associate Members
Green, Andrew - LLB, BA, LLM, MA, PhD
Triadafilopoulos, Phil (Triadafilos) - BA, MA, PhD
Rehabilitation Science

Degree Programs by Graduate Unit

Rehabilitation Science

Faculty Affiliation
Medicine

Degree Programs Offered
Rehabilitation Science – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aging, Palliative and Supportive Care Across the Life Course
   • Rehabilitation Science, MSc, PhD
2. Bioethics
   • Rehabilitation Science, MSc, PhD
3. Biomedical Engineering
   • Rehabilitation Science, MSc, PhD
4. Cardiovascular Sciences
   • Rehabilitation Science, MSc, PhD
5. Health Care, Technology and Place
   • Rehabilitation Science, MSc, PhD
6. Health Services and Policy Research
   • Rehabilitation Science, MSc, PhD
7. Neuroscience
   • Rehabilitation Science, MSc, PhD
8. Women’s Health
   • Rehabilitation Science, MSc, PhD

Overview
Rehabilitation Science is the systematic study of promoting, maintaining or restoring human function, mobility, occupation and well-being. Using basic and applied methods, the science is focused on phenomena at the level of the cell, 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.

By its very nature, rehabilitation science is multidisciplinary. The Graduate Department of Rehabilitation Science offers graduate programs leading to the degrees of Master of Science and Doctor of Philosophy. To capture the full breath of rehabilitation, the expertise of our faculty and the research of our students, Rehabilitation Science has identified five fields of study:
1. Movement Science
2. Occupational Science
3. Practice Science
4. Rehabilitation Health Services Studies
5. Rehabilitation Technology Sciences
6. Social and Cognitive Rehabilitation Sciences

Contact and Address
Web: www.gdrs.utoronto.ca
E-mail: rehab.science@utoronto.ca
Telephone: (416) 978-0300
Fax: (416) 946-8762

Graduate Department of Rehabilitation Science
University of Toronto
Rehabilitation Sciences Building
160 - 500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Degree Programs
Rehabilitation Science

Master of Science

Minimum Admission Requirements
- Students are accepted under the general regulations of the School of Graduate Studies.
- Four-year University of Toronto BSc degree with special training in occupational therapy, physical therapy, or a related field, or the equivalent from a recognized university. A B+ average in the final two years of undergraduate study is required.
- Evidence of written and verbal proficiency in English is required for applicants whose first language is not English and must be demonstrated through the successful completion of one of the following tests:
  o 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.
    Computer-based TOEFL: 250 and 5 on the essay rating component.
    Internet-based TOEFL (IBT): 100/120 and 22/30 on the writing and speaking sections.
  o Michigan English Language Assessment Battery (MELAB): minimum score of 87
  o International English Language Testing System (IELTS): minimum score of 7.5
  o Certificate of Proficiency in English (COPE): minimum score of 5

Program Requirements
Students may be required to take extra courses in addition to the degree requirements listed below.

Fields:
1. Movement Science
2. Occupational Science
3. Rehabilitation Health Services Studies
4. Rehabilitation Technology Sciences
5. Social and Cognitive Rehabilitation Sciences
• Complete course work and a thesis based on the student’s research.
• Successful completion of 2.5 full-course equivalents (FCE) as follows:
  o REH 1100H Theory and Research in Rehabilitation Science
  o REH 2001Y Rehabilitation Presentations and Proceedings
  o 0.5 FCE in research methods
  o 0.5 FCE in a related field of study
• 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.
• Exceptional students may be considered for enrollment in a part-time program. Requirements are the same as for the full-time MSc program with the following exceptions:
  o Residency requirements waived.
  o Course work must be completed within two years of initial registration.
  o Program must be completed within five years of registration.
  o Completion of an annual learning contract and program map planned with the supervisor.
  o Part-time students should be aware that it is the student’s responsibility to modify his or her work schedule to accommodate required course work since course times are not flexible.

Field:
  1. Practice Science

  • Complete course work and a thesis based on the student’s research.
  • Successful completion of 3.5 full-course equivalents (FCE) as follows:
    o REH 1100H Theory and Research in Rehabilitation Science
    o REH 2001Y Rehabilitation Presentations and Proceedings
    o 0.5 FCE in research methods
    o REH 3301H Rehabilitation Leadership: Transforming Practice
    o REH 3302H Determinants of Rehabilitation Practice
    o REH 3303H Rehabilitation Clinical Practicum
  • 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.

Doctor of Philosophy

Minimum Admission Requirements
• Appropriate University of Toronto MSc degree, or a MScOT or MScPT degree (with a research component), or equivalent degree from a recognized University; a minimum A- average in the master’s degree is required.
• Well qualified students with excellent research potential holding a BSc degree may be considered for direct admission to the PhD program. These applicants must:
  o have a minimum A+/A average (GPA 4.0) in an undergraduate program from a recognized university.
  o have previous relevant research experience, outstanding references and a personal recommendation from a potential supervisor.
• Applicants, whose first language is not English, must provide evidence of written and verbal proficiency in English by completing one of the following tests:
  o 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.
    • Computer-based TOEFL: 250 and 5 on the essay rating component.
    • Internet-based TOEFL (IBT): 100/120 and 22/30 on the writing and speaking sections.
  o Michigan English Language Assessment Battery (MELAB): minimum score of 87
  o International English Language Testing System (IELTS): minimum score of 7.5
  o Certificate of Proficiency in English (COPE): minimum score of 5

Program Requirements

Fields:
  1. Movement Science
  2. Occupational Science
  3. Rehabilitation Health Services Studies
  4. Rehabilitation Technology Sciences
  5. Social and Cognitive Rehabilitation Sciences

• A minimum of 2.0 FCE as follows:
  o REH 3100H Advanced Rehabilitation Research Issues or equivalent
  o An advanced research methods course.
  o REH 3001Y Advanced Rehabilitation Presentation and Proceedings.
• A comprehensive examination, with written and oral components, to be taken in the first 18 months of the program (2.5 years for Direct-entry students).
• Complete and defend a thesis.
• Students may be required to take extra courses in addition to the degree requirements listed above.
• Students are expected to be on campus and participating full time until all program requirements are completed.
Field:
1. Practice Science

- In addition to the program requirements above, students in the Practice Science field must complete the following additional 1.5 FCE:
  - REH 3301H Rehabilitation Leadership: Transforming Practice
  - REH 3302H Determinants of Rehabilitation Practice
  - REH 3303H Rehabilitation Clinical Practicum

- Direct Entry: Students in all fields who are admitted on the basis of a bachelor's degree must complete the following course requirements in addition to those listed above:
  - REH 1100H Theory and Research in Rehabilitation Science
  - REH 1130H Theory and Research in Occupational Science, or REH 1140H Theory and Research in Physical Therapy
  - REH 1120H Research Methods for Rehabilitation Science

Course List
Since not all courses are offered each academic year, the department should be consulted each session as to course offerings.

- REH 1100H Theory and Research in Rehabilitation Science
- REH 1120H Research Methods for Rehabilitation Science
- REH 1130H Theory and Research in Occupational Science
- REH 1510H Disordered and Restorative Motor Control
- REH 1620H Methodological Issues in Research on Aging and Health
- REH 2000H Individual Reading and Research Course
- REH 2001Y Rehabilitation Presentations and Proceedings (Credit/No Credit)
- REH 3001Y Advanced Rehabilitation Presentation and Proceedings (Credit/No Credit)
- REH 3100H Advanced Rehabilitation Research Issues
- REH 3301H Rehabilitation Leadership: Transforming Practice
- REH 3302H Determinants of Rehabilitation Practice
- REH 3303H Rehabilitation Clinical Practicum

*Courses which may continue over a program. The course is credited when completed.

Graduate Faculty

Full Members
- Agur, Anne - BSc, MSc, PhD
- Badley, Elizabeth - BSc, MSc, PhD
- Berg, Katherine - BPT, BSc(PT), MSc, PhD
- (Chair & Graduate Chair)
- Black, Sandra - BSc, MD
- Bosch, Kathryn Ann - BA, MA, PhD
- Brooks, Dina - BSc(PT), MSc, PhD
- Carnahan, Heather - BPHE, MSc, PhD
- Carswell, Anne - DIPOT, BSc(OT), MSc, PhD
- Chau, Tom - PhD
- Colantonio, Angela - BA, BSc(OT), MHS, PhD
- Cott, Cheryl - DIPP, BPT, MSc, PhD
- Davis, Aileen - BSc(PT), MSc
- Fernie, Geoffrey - BSc, PhD
- Frank, John - BSc, MSc, MD
- Girolametto, Luigi - BA, MSc, PhD
- Green, Robin - PhD
- Iwama, Michael - BSc(OT), BSc, MSc, PhD
- Jaglal, Susan - BSc, MSc, PhD
- Kirsh, Bonnie - BSc(OT), MEd, PhD
- Macarthur, Colin - BS, MSc, MBChB, PhD
- Martino, Rosemary - BS, MA, DPH
- McIlroy, William - BSc, PhD
- Mihalidis, Alex - BASc, MAsc, PhD
- Mustard, Cameron - AB, SCQ
- Polatajko-Howell, Helene - PhD
- Popovic, Milos - DipLing, PhD
- Rappolt, Susan - BSc(OT), MSc, PhD
- Reid, Denise - BSc(OT), MEd, PhD
- Renwick, Rebecca - DIPOT, BA, PhD
- Roy, Eric - BSc, MPE, PhD
- Steele, Catriona - BA, MHS, PhD
- Streiner, David - PhD
- Stuss, Donald - BPhil, MA, PhD
- Thomas, Scott - BSc, MSc, PhD
- Verrier, Mary (Molly) - DIPOT, MHS
- Yoshida, Karen - BSc, BPHE, MSc, PhD
- Young, Nancy - BSc(PT), BSc(PT), MSc

Members Emeriti
- Friedland, Judith - BA, MA, PhD

Associate Members
- Beaton, Dorcas - BSc(OT), MSc, PhD
- Cameron, Debra - BSc(OT), MEd, PhD
- Cameron, Jill - BS, MS, PhD
- Campbell, Kent - BSc, PhD
- Dawson, Deirdre - BSc, MSc, PhD
- Evans, Catherine - BSc, MSc, PhD
- Gibson, Barbara - MSc, BMR(P/T), PhD
- Goldstein, Roger - MBChB
- Grace, Sherry - BA, MA, PhD
- Graveline, Chantal - BSc, MSc
- Hunter, Judith - BPT, MSc
- Keightley, Michelle - BSc, MA, PhD
- Klein, Clifford - BPHE, MPE, PhD
Landry, Michel - BSc(PT), MSc(PT), DPhil
Mathur, Sunita - BSc(PT), MSc(PT), DPhil
McGilton, Kathy - BScN, MN, PhD
Morshead, Cindi Marie - BS, PhD
Nixon, Stephanie - BHSc(P/T), BA, PhD
Nussbaum, Ethne - BSc
Salbach, Nancy - BSc(PT), BS, MSc, PhD
Secker, Barbara - BA, AM, PhD
Shein, Fraser - PhD
Switzer-Mcintyre, Sharon - BSc, BPHE, PhD
Teare, Gary - MSc, DRMEDVET, PhD
Zabjek, Karl - BSc, MCLSC, PhD
Religion

Faculty Affiliation
Arts and Science

Degree Programs Offered
Religion – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Bioethics
   • Religion, MA, PhD
2. Book History and Print Culture
   • Religion, MA, PhD
3. Editing Medieval Texts
   • Religion, PhD
4. Environmental Studies
   • Religion, MA, PhD
5. Ethnic and Pluralism Studies
   • Religion, MA, PhD
6. International Relations
   • Religion, MA
7. Jewish Studies
   • Religion, MA, PhD
8. Sexual Diversity Studies
   • Religion, MA, PhD
9. South Asian Studies
   • Religion, MA, PhD
10. Women and Gender Studies
    • Religion, MA, PhD
11. Women's Health
    • Religion, MA, PhD

Overview
The Centre 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 Centre 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 Centre 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. At the doctoral level, from the point of admission onward, student programs must be matched with the expertise of at least three professors who help supervise the student's work. The Centre's Graduate Studies Handbook, available on the Web and from the Centre, gives full information on admissions and programs as well as the research and teaching interests of the faculty.

Contact and Address
Web: www.religion.utoronto.ca/
E-mail: religion.grad@utoronto.ca
Telephone: (416) 978-3057
Fax: (416) 978-1610
Centre for the Study of Religion
University of Toronto
Room 305, 170 St. George Street
Toronto, Ontario M5R 2M8
Canada

Degree Programs
Religion

Master of Arts

Minimum Admission Requirements
• Normally a four-year bachelor's degree with specialization in religion or a cognate discipline broadly equivalent to the University of Toronto's BA Specialist degree in religion, with at least B+ 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. 4.0 full-course equivalents (FCE); included in the total are RLG 2000Y Major Research Paper and RLG 1200H,Y MA Method and Theory Workshop. An extended program requires additional courses, some of which may be at the undergraduate level. Satisfactory performance requires the completion of all course work 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.

Doctor of Philosophy

Minimum Admission Requirements
• Normally, completion of all requirements of the Centre's MA program, or a comparable program at another university, with an average of at least A- in course work and with no individual course falling below B.
Program Requirements

- **Courses.** A minimum of 3.0 full-course equivalents (FCE), including RLG 1000Y Method and Theory in the Study of Religion and at least 0.5 FCE outside the area of specialization. Students may be required to take more than 3.0 FCE if their preparation is considered deficient in a subject required for their program. Satisfactory performance requires the completion of all course work 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 modern scholarship and necessary source languages provided that at least one shall be a language of modern scholarship, as approved by the Director of Graduate Studies. The language requirements must be fulfilled before writing the general examinations.

- **General Examinations.** Upon completion of course work, the language requirements, and the thesis pre-proposal, the student's supervisory committee will set general examinations to assess the student's readiness for thesis research. Written examinations will cover (a) the student's area of specialization, and (b) at least one important cognate area. An oral examination on all materials assigned for the general examinations will follow. The general examinations must be completed during 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 an oral examination.

- **Colloquium Presentation.** Once general examinations are completed, PhD candidates are required to participate at least once in the Centre for the Study of Religion's colloquium before undertaking their final oral examination.

- **Final Oral Examination.** The supervisory committee should 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 those of the first two academic years of a program.

Course List

Not all courses are offered every year. Please consult the Centre's Graduate Studies Handbook which lists the courses the Centre will offer this year as well as those cross-listed from other departments.

### Religion

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLG 1000Y</td>
<td>Method and Theory in the Study of Religion</td>
</tr>
<tr>
<td>RLG 1200H,Y</td>
<td>The MA Method and Theory Workshop</td>
</tr>
<tr>
<td>RLG 1500Y</td>
<td>Directed Reading</td>
</tr>
<tr>
<td>RLG 1501H</td>
<td>Directed Reading</td>
</tr>
<tr>
<td>RLG 1502H</td>
<td>Directed Reading</td>
</tr>
<tr>
<td>RLG 2000Y</td>
<td>Major Research Paper</td>
</tr>
<tr>
<td>RLG 2004H</td>
<td>Christianity and Science</td>
</tr>
<tr>
<td>RLG 2007H</td>
<td>Ethics, Society, and Technology</td>
</tr>
<tr>
<td>RLG 2012Y</td>
<td>Natural Law in Judaism and Christianity</td>
</tr>
<tr>
<td>RLG 2016H</td>
<td>Radical Evil: Religious, Philosophical and Psychological Response</td>
</tr>
<tr>
<td>RLG 2019H</td>
<td>Religion and the Environment</td>
</tr>
<tr>
<td>RLG 2021H</td>
<td>Historiography of Religions</td>
</tr>
<tr>
<td>RLG 2025H</td>
<td>Critical Social Theory and Feminist Religious Thought</td>
</tr>
<tr>
<td>RLG 2026H</td>
<td>Modernity, Postmodernity, and the Future of Religion</td>
</tr>
<tr>
<td>RLG 2028H</td>
<td>Enemies of God: Religion and Violence in a (Post) Modern Time</td>
</tr>
<tr>
<td>RLG 2035H</td>
<td>Religion and Material Culture in the Ancient World</td>
</tr>
<tr>
<td>RLG 2037H</td>
<td>Religion, Medicine and Healing</td>
</tr>
<tr>
<td>RLG 2060H</td>
<td>Religion and Philosophy in the European Enlightenment</td>
</tr>
<tr>
<td>RLG 2065H</td>
<td>The Presuppositions of Interreligious Dialogue</td>
</tr>
<tr>
<td>RLG 2071H</td>
<td>Religion and Philosophy</td>
</tr>
<tr>
<td>RLG 2080H</td>
<td>Origins, Evolution and the Psychology of Religious Experience</td>
</tr>
<tr>
<td>RLG 2085H</td>
<td>Genealogies of Christianity</td>
</tr>
<tr>
<td>RLG 2088H</td>
<td>The Birth of Anthropology and the study of Primitive Religion</td>
</tr>
<tr>
<td>RLG 2089H</td>
<td>The Study of Non-Literate Religions in Nineteenth- and Early Twentieth-Century France</td>
</tr>
<tr>
<td>RLG 2090H</td>
<td>Topics in Psychology of Religion</td>
</tr>
<tr>
<td>RLG 3101H</td>
<td>Yahweh and Other Deities in Ancient Israel</td>
</tr>
<tr>
<td>RLG 3103H</td>
<td>Problems in Israelite Religion</td>
</tr>
<tr>
<td>RLG 3142H</td>
<td>The Book of Genesis</td>
</tr>
<tr>
<td>RLG 3143H</td>
<td>Hebraica</td>
</tr>
<tr>
<td>RLG 3144H</td>
<td>Isaiah and Prophecy in the Early Judaism and Christianity</td>
</tr>
<tr>
<td>RLG 3150H</td>
<td>Reconceiving the Revelatory in Jewish Antiquity</td>
</tr>
<tr>
<td>RLG 3201H</td>
<td>Topics in Christian Origins I</td>
</tr>
<tr>
<td>RLG 3205H</td>
<td>Early Christian Self-Definition and the Separation from Judaism</td>
</tr>
<tr>
<td>RLG 3210H</td>
<td>Mani and the Kingdom of Light – Exploring an Alternate Christianity</td>
</tr>
<tr>
<td>RLG 3224Y</td>
<td>Early Eastern Christianity</td>
</tr>
<tr>
<td>RLG 3225Y</td>
<td>Early Churches in Cross-Cultural Perspective</td>
</tr>
<tr>
<td>RLG 3228H</td>
<td>Social History of the Early Jesus Movement</td>
</tr>
<tr>
<td>RLG 3230H</td>
<td>Comparative Theology Seminar</td>
</tr>
<tr>
<td>RLG 3232H</td>
<td>Sacred Space in the Christian Tradition</td>
</tr>
</tbody>
</table>
Degree Programs by Graduate Unit

RLG 3235H Liberation Theology: Examining the Work of Gustavo Gutiérrez and Thomas Berry
RLG 3236H Religious Pluralism and the Church
RLG 3237H Religion and Social Reform in Canada
RLG 3238H Latin American Liberation Theology
RLG 3240H Christian Origins II
RLG 3243H The Synoptic Problem
RLG 3244H The Sayings Gospel Q: Text and Social History
RLG 3245H Criticism of Gospels
RLG 3246H Gospel of John and the Jesus Traditions
RLG 3249H Studies in the Synoptic Gospels
RLG 3250H Heresy and Deviance in Early Christianity
RLG 3252H The Letter of James and Early Christian Wisdom
RLG 3255H Aspects of Matthean Interpretation
RLG 3258H Salvation as Liberation in Paul
RLG 3260H Twentieth-Century Political Philosophy within Christianity
RLG 3261H Augustine, Aquinas, Lonergan
RLG 3265H Christian Spirituality and Modern Culture
RLG 3266H God and Evil
RLG 3270H Christianity and Crisis in North America
RLG 3272H Jews and Judaism in Christian Traditions
RLG 3275H Varieties of North American Christianity
RLG 3410H Reading Practices in East Asian Religions
RLG 3444H Buddhism and Society in East Asia
RLG 3446H Causation, Movement and Time in Buddhist Scholastic Debate
RLG 3448H History of Sanskrit Buddhist Tantric Literature
RLG 3450H Buddhism and Science
RLG 3452H The History and Historiography of Buddhist Tantra
RLG 3454H, Y Readings in Tibetan Buddhism I
RLG 3455Y Readings in Tibetan Buddhism II
RLG 3456H Tantra in Tibet
RLG 3458H Rhetoric and Discipline in Buddhist Studies
RLG 3460H Basic Sanskrit Readings (1)
RLG 3461H Basic Sanskrit Readings (2)
RLG 3500Y Special Topics in Islamic Studies
RLG 3501H Special Topics in Islamic Studies
RLG 3505H Topics in Islamic Religious Literature
RLG 3510H Studies in Islamic Thought and Spirituality
RLG 3512H Introduction to Islamic Law
RLG 3514H Isma’il History and Thought: The Persian Tradition
RLG 3520H Disciplining Islam
RLG 3522H Dreams, Visions, and the Enlightenment
RLG 3610H Wisdom in Second Temple Judaism
RLG 3621H Modern Jewish Thought
RLG 3622H Maimonides and His Modern Interpreters
RLG 3623H Philosophy, Theology, and Politics: The Thought of Leo Strauss
RLG 3631H The Community of the Dead Sea Scrolls
RLG 3634H Worship and Scripture at Qumran
RLG 3641H Interpretations of Jewish Tradition
RLG 3645Y The Jewish Legal Tradition
RLG 3647H Early Rabbinic Judaism
RLG 3651H Hellenistic-Jewish Thought
RLG 3653Y Jewish Exegetical Traditions in Antiquity
RLG 3655H Readings in Jewish Literature (200 BCE - 200 CE)
RLG 3691H Themes in Jewish Studies I
RLG 3710H Newar Religion
RLG 3712H Asceticism in the Hindu Tradition
RLG 3713Y Hinduism and Politics
RLG 3721H Ramayana in Literature, Theology and Political Imagination
RLG 3743H The Bhakti Tradition
RLG 3744H Hindu Epics
RLG 3745H Hindu Myths and Mythology
RLG 3750H Topics in South Asian Religions
RLG 3760H Vedanta through the Ages
RLG 3761H Nature and Religion in South Asia
RLG 3762H Religion and Aesthetics in South Asia
RLG 3764H Readings in Sanskrit Philosophy
RLG 3931H Topics in North American Religions
RLG 3941Y Celtic Mythology
RLG 3944H Uses of the Bible in the Middle Ages
RLG 4000Y Directed Reading: TST Seminar
RLG 4001H Directed Reading: TST Seminar
RLG 4004H Colloquium Presentation

Joint Courses
JAR 6510H From Theory to Ethnography: Anthropological Approaches to Religion
JPR 2057H Political Theologies

Other Departments
Other departments offer courses that may contribute to graduate programs in the Study of Religion. Visit our Web site for a current listing of such course offerings from:
- Anthropology
- Art
- East Asian Studies
- English
- Ethnic and Pluralism Studies
- German
- 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
Degree Programs by Graduate Unit

Graduate Faculty

Full Members
Abray, L Jane - BA, MA, MPH, PhD
Airhart, Phyllis - BA, MA, PhD
Boddy, Janice - BA, MA, PhD
Bryant, Joseph - MA, PhD
Cobb, Michael - BA, MA, AM, PhD
Cochelin, Isabelle - MA, PhD
Cunningham, Hilary - PhD
Dhand, Arti - MA, PhD
DiCenso, James - PhD
Donaldson, Terence - BSc, MTh, DTh
Dooley, Ann - BA, MA, PhD
Eisenbichler, Konrad - BA, MA, PhD
Emon, Anver - LLB, BA, LLM, MA, PhD
Everett, Nicholas - BA, MA, PhD
Fadel, Mohammad - BA, JD, PhD
Fox, Harry - BSc, BA, MS, MA, PhD
Franks, Paul - BA, MA, PhD
Garrett, Frances - BA, MA, PhD
Gibbs, Robert - BA, MA, PhD
Goering, Joseph - BA, MA, MSL, PhD
Goetschel, Willi - PhD
Gooch, Paul William - BA, MA, PhD
Green, Kenneth - BA, MA, PhD
Harak, Amir - MA, LTH, PhD
Hewitt, Marsha - BA, MA, PhD
Kanaganayakam, Chelvanayakam - PhD
Kasturi, Malavika - DPhil
Kingwell, Mark - AB, BA, AM, MPH, PhD
Kivimae, Juri - AM, PhD
Klassen, Pamela - BA, MA, PhD
Kloppenborg, John - BA, MA, PhD (Chair & Graduate Chair)
Lambek, Michael - BA, MA, PhD
Lawson, Todd - BA, MA, PhD
Magee, John - BA, MA, PhD
Marshall, John - BA, MA, PhD (Director of Graduate Studies)
McGowan, Mark - BA, MA, PhD
Metso, Sarianna - MA, PhD
Meyerson, Mark - BA, PhD
Milis, Kenneth - MA, PhD
Most, Andrea - BA, MA, PhD
Mullin, Amy - BA, PhD
Murray, Heather - BA, MA, PhD
Najman, Hindy - AB, MA, PhD
Newman, Judith - PhD
Northrup, Linda - BA, MA, PhD
Novak, David - AB, PhD
Reilly, James - BA, MA, PhD
Saleh, Walid - BA, MA, PhD
Sandahl, Stella - MA, MA, PhD
Schmidt, Lawrence - BA, MA, PhD
Shen, Vincent Tsing-song - PhD
Sinkewicz, Robert - BA, PhD
Stefanovic, Ingrid - BA, MA, PhD
Subtelny, Maria - BA, PhD
Taylor, Glen - BA, MPH, MTh, PhD
Terpstra, Nicholas - BA, MA, PhD
Vaage, Leif - BA, PhD
Virani, Shafique - PhD

Members Emeriti
Brownlee, John - BA, MA, MPH
Callahan, William - AB, MA, PhD
Davies, Alan - PhD
McIntire, C. Thomas - PhD
Nicholson, Graeme - BA, BD, MA, PhD
O'Connell, Joseph - PhD
O'Toole, Roger - DIPED, BA, MA, PhD
Richardson, G Peter - BAR, BD, PhD
Stock, Brian - AB, PhD
Vertin, Joseph Michael - BA, PhD

Associate Members
Ahn, Juhn - BA, MA, PhD
Bendlin, Andreas - PhD
Dixon, David - BSc, MA, MD
Emmrich, Christoph - PhD
Fehige, Yiftach - MA, PhD, DTh
Green, Sharon - BA, MA, PhD
Harris, Jennifer - BA, MA, PhD
Locklin, Reid - AB, MTh, PhD
Marshall, Ruth - BA, MA, DPhil
Mittermaier, Amir - MA, PhD
Purtle, Jennifer - BLitt
Raffaelli, Enrico - PhD
Raman, Srilata - BA, MPH, PhD
Rao, Ajay - PhD
Scharper, Stephen - MTh, PhD
Slavic Languages and Literatures

Faculty Affiliation
Arts and Science

Degree Programs Offered
Slavic Languages and Literatures – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Jewish 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.

Contact and Address
Web: www.utoronto.ca/slavic/
E-mail: slavic@chass.utoronto.ca
Telephone: (416) 926-2075
Fax: (416) 926-2076

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

Degree Programs
Slavic Languages and Literatures

Master of Arts

Minimum Admission Requirements
• Undergraduate degree, equivalent to a four-year program (preferably in a cognate area) at the University of Toronto, with an overall standing equivalent to at least a mid-B in the final year.
• A minimum A- average in all third and fourth year Slavic subjects taken is recommended.

Program Requirements
• Proficiency in language of major must be demonstrated during first week of session. Undergraduate language courses may be required. These are not tabulated as part of graduate program course requirements.
• Students normally complete:
   o 4.0 full course equivalents (FCE) including SLA1104H and SLA1040H, OR
   o 3.0 FCE including SLA1104H and SLA1040H; plus a research paper written in English.
• All MA students are required to take SLA 1104H Introduction to Old Church Slavonic and SLA1040H Methods of Teaching Slavic Languages, or present evidence to the Department that equivalent courses have been completed elsewhere.
• Students majoring in one of the Slavic languages and literatures must have acquired a working knowledge (equivalent to a first-year language course) of a second Slavic language (most often Russian) or have completed, by the end of their program, an approved undergraduate course in a Slavic language that is different than their major language of study. A final grade of B or better is required in all language courses.
• Students who intend to major or minor in Slavic linguistics must take SLA 1109H.
• Ordinarily, a student spends a full year in residence.

Doctor of Philosophy

Minimum Admission Requirements
• Appropriate University of Toronto master’s degree, or its equivalent, with a minimum A- average in graduate courses and demonstrated research competence.

Program Requirements
Students are normally required to:
• Complete a major and a minor program.
• Complete 9.0 full course equivalents (FCE) with at least 0.5 FCE in Slavic linguistics. Advanced standing to a maximum of 3.0 FCE may be available for work completed in the MA.
• Minor programs should include 2.0 FCE 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 OR, with departmental approval, from a cognate discipline (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 course work and the French or German language requirement, students must pass written comprehensive examinations in the major field and written and oral comprehensive examinations in the special field. The major field exam cannot be taken if students have any outstanding course work.
• By the time of their major field exam, students should have chosen their supervisor and the rest of their committee (in consultation with the supervisor).
• Dissertation.
• In years 1 and 2, students must take courses and be on campus full time to participate fully in the PhD program's activities.
• Complete all program requirements, including the thesis, within five years of initial registration.

Slavic Literatures Field-Specific Program Requirements
Students in the field of Slavic literatures must:
• Acquire a working knowledge of a Slavic language other than their major language of study OR complete, by the end of their second year, at least two approved undergraduate courses in a Slavic language that is different than their major language of study. A working knowledge is defined as proficiency equivalent to a second year course. Students must also satisfy departmental requirements for their major language. Students who do not major in Russian most often choose it as their second Slavic language.

Slavic Linguistics Field-Specific Program Requirements
Within the PhD program requirements listed above, students studying Slavic linguistics should include:
• at least 3.0 FCE in Slavic linguistics, as well as 2.0 FCE in theoretical linguistics from cognate disciplines, e.g., linguistics, anthropology. Linguistics students are also strongly advised to complete 1.0 FCE in the literature of their major language.
• complete at least one course in Slavic languages from each of the three groups: West Slavic, East Slavic, and South Slavic by the end of their second year.

Course List
Not all courses are offered every year. Students should consult the departmental handbook for current course offerings.

Croatian and Serbian Literatures
SLA 1507H Modern Croatian Bards in Performance
SLA 1517H Modern Serbian Bards: the Orphic Tradition
SLA 1537H Political Drama from Dubrovnik to Danube
SLA 1547H South Slavic Folklore

Czech and Slovak Literature
SLA 1600Y Introduction to Czech and Slovak Literatures
SLA 1602Y Czech Style and Syntax
SLA 1603H Lifting the Iron Curtain: Czech Culture of the Sixties in Context
SLA 1604Y History of Czech Verbal Art from the Early Stages to Baroque
SLA 1605Y Of Robots, Clowns and Poets: Modern Czech Drama and Theatre
SLA 1606H Public Places and Private Spaces in Czech Short Story
SLA 1608H On the Wave of the Avant-garde
COL 5039H Of Laughter and Forgetting in Milan Kundera

Hungarian Literature
HUN 1440Y The Modern Hungarian Novel
HUN 1450H Hungarian Drama
HUN 1451H Three Hungarian Film Directors

Polish Literature
SLA 1304H Staging God, Man and History: Polish Drama
SLA 1305H Polish Fiction or a Disrupted Funeral of the Novel
SLA 1306H Polish Poetry: Shaping the National Canon
SLA 1308Y Topics in Polish Literature
SLA 1312Y Modernism and Post-Modernism in Polish Literature

Russian Literature
SLA 1202H Gulag Literature
SLA 1203H The Self and Other in Russian Prose
SLA 1204H Contemporary Russian Literature
SLA 1205H Russian Literary Scandals
SLA 1207H The Imaginary Jew
SLA 1210H Studies in Medieval Russian Literature
SLA 1211Y Studies in the Russian Drama: Eighteenth to Twentieth Century
SLA 1215H Studies in Russian Literature and Criticism in the Eighteenth Century
SLA 1216H From English to Russian Literature and Back
SLA 1220H Nineteenth Century Russian Thinkers
SLA 1225H Russian Literature and Criticism in the 1860s
SLA 1226H Dostoevsky in Literary Theory and Criticism
SLA 1228H Themes in Russian Realism
SLA 1231H Twentieth Century Russian Prose
SLA 1232H Russian Symbolism
SLA 1233H Studies in Modern Russian Poets
SLA 1234H Dostoevsky
SLA 1235H Pasternak
SLA 1238H Chekhov
SLA 1239H Vladimir Nabokov
SLA 1240H Tolstoy
SLA 1241H Narrative and History
SLA 1410H Gogol
SLA 1411H Experiments in Art in the Late Russian Empire—Early Soviet Union
SLA 1900H Russian Nineteenth-Century Poetry (mandatory for MA students)

**Slavic Linguistics**

SLA 1040H Methods of Teaching Slavic Languages
SLA 1101H Historical Phonology, Morphology, and Syntax of the Russian Language
SLA 1102Y Advanced Russian Language Skills
SLA 1103H Comparative South Slavic Linguistics
SLA 1104H Introduction to Old Church Slavonic
SLA 1105H Russian Phonetics, Phonology, and Derivational Morphology
SLA 1109H Studies in Old Church Slavonic
SLA 1110H Comparative Historical Slavic Linguistics
SLA 1112H Tense, Aspect and Mood in Slavic
SLA 1113H Language Standardization and the Politics of Identity in Southeastern Europe
SLA 1114H Russian Inflectional Morphology, Stress, Lexicon, Aspect
SLA 1115H Historical Dialectology, Accentuation, and Verbal Semantics of the Russian Language
SLA 1141H History of the Ukrainian Language
SLA 1142H Style and Structure of Ukrainian
SLA 1150H Russian Since the Revolution

**Russian Language**

SLA 1101 Y History of the Russian Language
SLA 1102Y Advanced Russian Language Skills

**Ukrainian Literature/Language**

SLA 1141H History of Ukrainian Language
SLA 1142H Style and Structure of Ukrainian
SLA 1402Y Studies in Ukrainian Modernism
SLA 1403Y Studies in Contemporary Ukrainian Literature
SLA 1404Y Studies in Ukrainian Poets
SLA 1405Y Experiments in Ukrainian Prose
SLA 1406Y Studies in Ukrainian Literary Criticism
SLA 1407H Aspects of Literary Translation of Ukrainian
SLA 1408H Taras Shevchenko
SLA 1421H Literature of the Ukrainian Diaspora

**General Slavic**

SLA 1037H Theatre and Cinema in Extremis: Staging Twentieth Century Aesthetics and Politics
SLA 1038H Performance in Theory and Practice
SLA 1039H Kyiv-Kiev-Kiyow: A City through Cultures and Centuries
SLA 1040H Methods of Teaching Slavic Languages
SLA 1207H The Imaginary Jew
SLA 1310H Theatre in the Twentieth Century
SLA 1421H Women in East European Fiction
SLA 1521H Post-Modernity and the Mythopoetic Legacy of Mitteleuropa

SLA 2000Y Reading and Research
SLA 2001H One Term Reading and Research
SLA 2002Y Reading and Research (for PhD students only)
SLA 2020Y Research Paper
COL 5012Y Readings in Czech/Russian Literary Theory
COL 5037H Magic Prague: Question of Literary Cityscapes

**Graduate Faculty**

**Full Members**
Ambros, Veronika - MA, PhD
Kramer, Christina - BA, MA, PhD (Chair & Graduate Chair)
Livak, Leonid - BA, AM, PhD
Mikhailova, Julia - AB, AM, AM, DPhil
Orwin, Donna - PhD
Schallert, Joseph - PhD
Tarnawsky, Maxim - BA, PhD (Coordinator of Graduate Studies)

**Members Emeriti**
Bedford, Charles - MA, PhD
Bisztray, George - PhD
Bogert, Ralph - BA, MA, PhD
Doležel, Lubomir - BA, PhD
Iribarne, Louis - BA, MA, PhD
Lantz, Kenneth - BA, MA, PhD
Lindheim, Ralph - BA, MA
Pavliuc, Nicolae - PhD
Ponomareff, Constantin - BA, MA, PhD
Thomson, Roger - BA, MA, DPhil

**Associate Members**
Smith, Thomas Allan - MA, DTh
Degree Programs by Graduate Unit

Social Work

Faculty Affiliation
Social Work

Degree Programs Offered
Social Work – MSW; Combined JD/MSW; Combined MHSc/MSW; PhD

Diploma Programs Offered
Social Work - Advanced Diploma in Social Service Administration

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

1. Addiction Studies
   • Social Work, MSW, PhD
2. Aging, Palliative and Supportive Care Across the Life Course
   • Social Work, MSW, JD/MSW, MHSc/MSW, PhD
3. Asia Pacific Studies
   • Social Work, MSW
4. Bioethics
   • Social Work, MSW, PhD
5. Community Development
   • Social Work, MSW
6. Ethnic and Pluralism Studies
   • Social Work, MSW, PhD
7. Health Care, Technology and Place
   • Social Work, PhD
8. Health Services and Policy Research
   • Social Work, MSW, PhD
9. Sexual Diversity Studies
   • Social Work, MSW, PhD
10. Women and Gender Studies
    • Social Work, MSW, JD/MSW, MHSc/MSW, PhD

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 more than 90 years. The Faculty offers a professional/academic program of study leading to a Master of Social Work (MSW), a post-master's Advanced Diploma in Social Service Administration and a Doctor of Philosophy (PhD) degree.

The MSW program is distinguished by the integration of research and practice in both the classroom and its practicum education. The program offers five fields of specialization:

1. children and their families
2. health and mental health
3. social justice and diversity
4. gerontology
5. social service administration

It is fully accredited by the Canadian Association of Social Work Education.

The Advanced Diploma in Social Service Administration program provides a rigorous, comprehensive grounding in the key values, skills, and knowledge required by administrators and leaders of social service organizations.

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.

Contact and Address
Web: www.socialwork.utoronto.ca
E-mail: 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 1A1
Canada

Degree Programs
Social Work

Master of Social Work
The Factor-Inwentash Faculty of Social Work offers two streams in the Master of Social Work Program:

1. Students with a four-year bachelor's degree from a recognized university will normally complete the program in two years of full-time study.
2. Students entering with a B.S.W. degree from a recognized university will be given advanced standing and will normally complete the program in one year of full-time study or two years of part-time study.

All students are expected to graduate with an advanced level of knowledge and professional competence in a chosen area of social work practice.
Minimum Admission Requirements

- Applicants with a four-year University of Toronto bachelor's degree with a minimum mid-B average in the final year of full-time study, or its equivalent 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 program with Advanced Standing.
- Students applying to the Social Service Administration field must have at least 5 years experience in social services.
- Course work should have included 3.0 full-course equivalents (FCE) 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) and knowledge in social services and critical social issues, as well as suitability, is considered.
- Proof of English language facility (see SGS General Regulations).
- Advanced Standing applicants must also indicate a field and a preference for full-time or part-time studies.

Initial admission enquiries should be made directly to the Faculty of Social Work. The application deadline for the MSW program is December 15. Due to space limitations, applicants holding the minimum admission requirements are not guaranteed admission. The Faculty reserves the right to admit qualified applicants to the program. All admission decisions are final.

Program Requirements

MSW Two-Year Full-Time Program

Fields:
1. Children and Their Families
2. Health and Mental Health
3. Social Justice and Diversity
4. Social Service Administration

- Students in the fields listed above must complete a total of 8.5 FCE including core MSW course work (4.0 FCE), required field-specific course work (2.0 FCE), elective course work (1.0 FCE), and practica (1.5 FCE).
- The first year practicum, offered in the winter session, is equivalent to 0.5 FCE; the second year practicum (September-April) is equivalent to 1.0 FCE and must be in the student’s field.
- All students must satisfy SGS residency and full-time student requirements. All MSW degrees must be completed within four years from the date of first registration in the program.

Field:
1. Gerontology

- Gerontology students must complete a total of 9.0 FCE, including core MSW course work (4.0 FCE) required field-specific course work (2.5 FCE), elective course work (1.0 FCE), and practica (1.5 FCE as described above).
- All students enrolled in the Social Work and Gerontology field will automatically be enrolled in the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course.

Thesis option

- 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. This option is available to a limited number of students whose proposed research must be approved by the Associate Dean and a review panel.
- 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 second year practicum. Workplace supervision must have occurred with a MSW supervisor; requests for substitution must be reviewed and approved by the Faculty-Assessment Committee.
- Students who choose the thesis option may require additional time to complete the program.

Fields:
1. Children and Their Families
2. Health and Mental Health
3. Social Justice and Diversity

- Thesis students in the fields listed above complete a total of 9.0 FCE, including core MSW course work (4.0 FCE), required field-specific course work (2.0 FCE), practica (1.5 FCE), thesis (1.0 FCE), and a research methods course (0.5 FCE chosen from SWK 6307H or SWK 6308H).

Field:
1. Gerontology

- Thesis students in Gerontology complete a total of 9.0 FCE, including core MSW course work (4.0 FCE), required field-specific course work (2.5 FCE), elective course work (1.0 FCE, 0.5 of which must be from the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course listing), the first year practicum (0.5 FCE), and a thesis (1.0 FCE).
Course List

Year One - all students
SWK 4102H Social Policy and Social Welfare in the Canadian Context
SWK 4103H Elements of Social Work Practice
SWK 4105H Social Work Practice Laboratory
SWK 4107H Foundations of Social Work: Knowledge, Theory and Values that Inform Practice
SWK 4510H Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for all second year required courses.)
SWK 4602H Social Work Practice with Groups
SWK 4605H Social Work Practice with Individuals and Families
SWK 4654H Social Work Practice in Organizations and Communities
SWK 4701H Social Work Practicum I (SWK 4103H and SWK 4105H are prerequisites)

Year Two
Students choose one of the five fields below. Two-year stream students must declare their field by mid-February of the first year.

Field:
1. **Children and their Families**
   - SWK 4514H Research for Practice with Children and their Families
   - SWK 4608H Social Work Practice with Families
   - SWK 4620H Social Work Practice with Children and Adolescents
   - SWK 4625H Contemporary Issues in Working with Children and their Families
   - SWK 4702Y Social Work Practicum II (full-credit)
   1.0 elective FCE

Field:
1. **Health and Mental Health**
   - SWK 4412H The Context of Mental Health and Health Practice
   - SWK 4511H Practice-Based Research in Mental Health and Health
   - SWK 4702Y Social Work Practicum II (full-credit)
   Plus students can then elect to take one of three choices:
   - SWK 4622H Social Work Practice in Health followed by SWK 4604H Social Work Practice in Mental Health
   - SWK 4622H Social Work Practice in Health followed by SWK 4632H Advanced Social Work Practice in Health (Prerequisite: SWK 4622H)
   - SWK 4604H Social Work Practice in Mental Health followed by SWK 4631H Advanced Social Work Practice in Mental Health (Prerequisite: SWK 4604H)
   1.0 elective FCE

Field:
1. **Social Justice and Diversity**
   - SWK 4304H Globalization and Trans-nationalization: Social Work Responses Locally and Globally
   - SWK 4306H Process of Social Exclusion, Marginalization, and Resistance
   - SWK 4512H Creating Knowledge to Inform Critical Practice
   - SWK 4606H Diversity, Access, and Equity in Social Work Practice
   - SWK 4702Y Social Work Practicum II (full-credit)
   1.0 elective FCE

Field:
1. **Social Service Administration**
   - SWK 4425H Leadership Skills in Social Service Organizations
   - SWK 4426H Financial Management of Social Service Organizations
   - SWK 4427H Human Resource Management in Social Service Organizations
   - SWK 4515H Research and Quality Improvement in Human Service Organizations
   - SWK 4702Y Social Work Practicum II (full-credit)
   1.0 elective FCE

Field:
1. **Gerontology**
   - AGE 2000H Principles of Aging
   - SWK 4513H Knowledge Building in Social Work
   - SWK 4612Y Social Work and Aging: Integrated Policy and Practice (full-credit)
   - SWK 4618H Special Issues in Gerontological Social Work
   - SWK 4702Y Social Work Practicum II (full-credit)
   1.0 elective FCE

Master of Social Work Program with Advanced Standing
Students must complete program requirements as full-time students (three academic sessions) or part-time students (normally within six academic sessions). Part-time students are required to complete the same number of credits as full-time students, although the structure and sequencing of their individual programs of study may vary.

Fields:
1. **Children and Their Families**
2. **Health and Mental Health**
3. **Social Justice and Diversity**
   - Students in the fields listed above will normally complete a total of 4.5 FCE including required course work (2.5 FCE), elective course work (1.0 FCE), and a practicum (1.0 FCE).
Field: Social Service Administration
1. Social Service Administration students will normally complete a total of 4.5 FCE including required course work (3.0 FCE), elective course work (0.5 FCE), and a practicum (1.0 FCE).

Field: Gerontology
1. Gerontology students will normally complete a total of 5.0 FCE, including required course work (3.0 FCE), elective course work (1.0 FCE), and a practicum (1.0 FCE).
2. All students enrolled in the Social Work and Gerontology field will automatically be enrolled in the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course.

Thesis Option
1. The thesis option is available to a limited number of students whose proposed research must be approved by the Associate Dean and a review panel. Students who choose the thesis option may require additional time to complete the program.
2. Students in the thesis option who have a minimum of two years prior full-time social work experience are eligible to apply to take 1.0 FCE in elective course work in place of the practicum. Workplace supervision must have taken place with a MSW supervisor. Requests for substitution must be reviewed and approved by the Faculty-Assessment Committee.

Fields:
1. Children and their Families
2. Diversity and Social Justice
3. Mental Health and Health
4. Social Service Administration

Field: Children and their Families
1. SWK 4510H Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for all second year required courses)
2. SWK 4514H Research for Practice with Children and their Families
3. SWK 4608H Social Work Practice with Families
4. SWK 4620H Social Work Practice with Children and Adolescents
5. SWK 4625H Contemporary Issues in Working with Children and their Families
6. SWK 4702Y Social Work Practicum II (full-credit) 1.0 elective FCE

Field: Diversity and Social Justice
1. SWK 4510H Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for all second year required courses)
2. SWK 4304H Globalization and Transnationalization: Social Work Responses Locally and Globally
3. SWK 4306H Process of Social Exclusion, Marginalization, and Resistance
4. SWK 4512H Creating Knowledge to inform Critical Practice
5. SWK 4606H Diversity, Access, and Equity in Social Work Practice
6. SWK 4702Y Social Work Practicum II (full-credit) 1.0 elective FCE

Field: Mental Health and Health
1. SWK 4510H Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for all second year required courses)
2. SWK 4412H The Context of Mental Health and Health Practice
3. SWK 4511H Practice-Based Research in Mental Health and Health Practice
4. SWK 4622H Social Work Practice in Health and SWK 4604H Social Work Practice in Mental Health
5. SWK 4622H Social Work Practice in Health followed by SWK 4632H Advanced Social Work Practice in Health (Prerequisite: SWK 4622H)
6. SWK 4604H Social Work Practice in Mental Health followed by SWK4631H Advanced Social Work Practice in Mental Health (Prerequisite: SWK 4604H)

Field: Social Service Administration
1. SWK 4510H Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for all second year required courses)
2. SWK 4425H Leadership Skills in Social Service Organizations
3. SWK 4426H Financial Management of Social Service Organizations

Courses
Students complete one of the following five fields:
SWK 4427H Human Resource Management in Social Service Organizations
SWK 4515H Research and Quality Improvement in Human Service Organizations
SWK 4102H Social Policy and Social Welfare in the Canadian Context
SWK 4702Y Social Work Practicum II (full-credit) 0.5 elective FCE

Field:
1. Social Work in Gerontology
   SWK 4510H Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for all second year required courses)
   AGE 2000H Principles of Aging
   SWK 4513H Knowledge Building in Social Work
   SWK 4612Y Social Work and Aging: Integrated Policy and Practice (full-credit)
   SWK 4618H Special Issues in Gerontological Social Work
   SWK 4702Y Social Work Practicum II (full-credit) 1.0 elective FCE, of which 0.5 FCE must be from the Collaborative Program in Aging, Palliative and Supportive Care Across the Life course listing.

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 Web site www.socialwork.utoronto.ca.

AGE 2000H Principles of Aging
JPX 1001H Parenting: Multidisciplinary Perspectives
JFS 1460H Community-Based Natural Resource Management
JPW 2118H Philosophical Foundations of Women's Studies
JTH 3000H Coordinating Seminar in Ethnic and Pluralism Studies
PAS 3700H Multidisciplinary Aspects of Addiction Studies
SWK 4210H Promoting Empowerment: Working at the Margins
SWK 4403H Women and Social Policy in Canada
SWK 4417H Adolescence: Social Work Challenges and the Role of Social Work
SWK 4418H Introduction to Jewish Perspectives on Caring
SWK 4422H Human Rights and Social Justice
SWK 4423H Social Housing and Homelessness
SWK 4506H Applied Quantitative Data Analysis
SWK 4603H Advanced Social Work Practice with Groups (Prerequisite: SWK 4602H or equivalent)
SWK 4609H Sexuality, Sexual Diversity and Social Work Practice
SWK 4610H Advanced Social Work Practice with Couples
SWK 4613H Social Work Practice with the Aged
SWK 4616H Drug Dependencies: Interventive Approaches
SWK 4617H Cross-Cultural Social Work Practice
SWK 4619H Family Mediation: Theory and Practice
SWK 4621H Integrative Child and Adolescent Therapy: Theory and Practice
SWK 4623H Violence in Families: Multilevel Intervention in Interdisciplinary Practice
SWK 4624H Feminist Social Work Practice
SWK 4630H Intersecting Narratives: Self, Culture, Institutions
SWK 4658H Social Work with Immigrants and Refugees
SWK 4662H Social Policy Analysis
SWK 4664H Administrative/Managerial Practice in Social Work
SWK 4667H Information Technology in Professional Social Work Practice
SWK 4668H Welfare of Children: Policy and Practice

Special Studies
Special Studies courses are designed to provide seminars or tutorials under the direction of a faculty member. The focus is on a topic of particular interest to the student which is not included in available courses.

SWK 4801H Special Studies I
SWK 4802H Special Studies II
SWK 4803H Special Studies III
SWK 4804H Special Studies IV

Combined JD/MSW in Law and Social Work

Minimum Admission Requirements
- Applicants must satisfy the admission requirements of both the Juris Doctor and Master of Social Work programs independently.

Program Requirements
- Program requirements will normally be satisfied within four years. Advanced Standing for students with a BSW from a recognized university is possible.

Combined MHSc/MSW in Health Administration and Social Work

Minimum Admission Requirements
- Students must satisfy the admission requirements for both the Master of Health Science and Master of Social Work programs independently.

Program Requirements
- Program requirements will normally be satisfied within three years. Advanced Standing for students with a BSW from a recognized university is possible.
Doctor of Philosophy

Minimum Admission Requirements

- Master of Social Work degree or an equivalent master's degree with at least B+ standing from an accredited program in a recognized university;
- Competency in basic statistical methods at an introductory level;
- Educational and professional experience that will indicate a capacity to undertake research-oriented postgraduate work;
- Evidence of facility in the English language (See SGS General Regulations).
- Initial admission enquiries should be made directly to the Faculty of Social Work. The application deadline for the PhD program is February 1. The faculty of Social Work does not guarantee admission to all applicants who meet its minimum requirements.

Program Requirements

- Complete coursework totalling 5.0 FCE, generally within two years of registration, as follows:
  - 2.0 FCE in required research courses: SWK 6301H, SWK 6302H, SWK 6307H, SWK 6308H. 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 at least B+.
  - 2.5 FCE 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).
  - SWK 7000H Doctoral Thesis Seminar (0.5 FCE) is required during the fall session of the second year of the program.
- Following completion of course work, students are required to satisfactorily complete a comprehensive paper followed by a thesis proposal and thesis which constitutes a distinct contribution to knowledge in the field of social work, and finally, an oral thesis defence.
- Students are expected to complete their course work, Comprehensive Paper, and have their thesis proposal approved by the end of August of the third year of the program. The research, writing, and oral examination of the thesis are typically completed by the end of the fifth year of the program.
- 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.
- All program requirements must be satisfied within six years of initial registration.

Flexible-time Option

- The flexible-time PhD differs only in design and delivery. All requirements are the same as those for the full-time PhD students.
- The flexible-time option is offered to practicing professionals who can demonstrate their employment or other professional work is related to their intended field of study and research interests. Students who are considering the flexible-time PhD should ensure that they will have adequate time on campus to attend classes and to fulfill the academic requirements of a PhD program.

Course List

SWK 4506H Applied Quantitative Data Analysis
SWK 6005H Theoretical Foundations of Social Work
SWK 6006H Theory and Practice of Teaching Social Work
SWK 6101H Critical Evaluation of Social Work Practice Theories
SWK 6106H Family Mediation: Research and Practice
SWK 6203H Comparative Social Welfare Systems
SWK 6205H Social Planning in Social Welfare
SWK 6208H Advanced Principles of Social Policy Analysis
SWK 6301H Intermediate Statistics and Data Analysis (Prerequisite: SWK 4506H or pass a competency exam)
SWK 6302H Epistemology and Social Work Research
SWK 6307H Designing and Implementing Qualitative Social Work Research
SWK 6308H Designing and Implementing Quantitative Social Work Research
SWK 6401H Sociocultural Issues in Social Work
SWK 6406H Housing Theory and Research Methods
SWK 7000H Doctoral Thesis Seminar (Credit/No Credit)

These courses are designed to provide seminars or tutorials according to the particular interests of students enrolled:

SWK 6501H,Y Special Studies 1
SWK 6502H,Y Special Studies 2
SWK 6503H,Y Special Studies 3
SWK 6504H,Y Special Studies 4

Diploma Programs

Advanced Diploma in Social Service Administration

The goal of this program is to provide a rigorous, comprehensive grounding in the key values, skills and knowledge required by administrators, managers and leaders of social service organizations. The diploma program is designed for students who are working full-time.
Degree Programs by Graduate Unit

Admission Requirements

- Applicants follow admission requirements stipulated by the School of Graduate Studies at the University and by the Faculty of Social Work. Applicants must have a MSW or master's degree in a related social service field and have at least five years experience in social services.

Program Requirements

- 3.0 full-course equivalents (FCE) offered in modular format one full day per month.
  - Diploma requirements can be completed in one year (3 academic sessions) or on a part-time basis normally within two years (6 academic sessions). All students must complete the Diploma Program within a maximum five-year period.

Course List

- SWK 4425H Leadership Skills in Social Service Organizations
- SWK 4426H Financial Management of Social Service Organizations
- SWK 4427H Human Resource Management in Social Service Organizations
- SWK 4515H Research and Quality Improvement in Human Service Organizations

- 1.0 elective FCE given in conjunction with the M.S.W. curriculum or
- 0.5 elective FCE and a major paper addressing a funding, management, or structural challenge in a social service agency.

Graduate Faculty

Full Members

- Alaggia, Ramona - BA, MSW, PhD
- Bogd, Marion - BA, MSW
- Chambon, Adrienne - BA, PhD (Director, PhD Program)
- Fuller-Thomson, Esme - BA, MSW, PhD
- Globberman, Judith - BSW, MHSc, MSc, PhD
- Hulchanski, J David - BA, MSc, PhD
- Lightman, Ernie - BA, MA, PhD
- MacFadden, Robert - BA, BA, MSW, PhD
- McDonald, Lynn - PhD
- Mishna, Faye - BA, PhD
- Newman, Peter - AB, MA, MSW, PhD, PhD
- Neysmith, Sheila - BSc, MSW, DS
- Nicholas, David - BSW, MSW, DPhil
- Regehr, Cheryl - AB, MA, PhD (Dean)
- Shera, Wes - MA, PhD
- Shlonsky, Aron - AB, MPH, MSW, DPhil
- Stern, Susan - DSW
- Trocme, Nicolas - PhD
- Tsang, Ka Tat - BSc, PhD
- Williams, Charmaine - DSW (Associate Dean, Academic)

Members Emeriti

- Alaggia, Ramona - BA, MSW, PhD
- Bogd, Marion - BA, MSW
- Chambon, Adrienne (Director, PhD Program)
- Fuller-Thomson, Esme - BA, MSW, PhD

Associate Members

- Alaggia, Ramona - BA, MSW, PhD
- Bogd, Marion - BA, MSW
- Chambon, Adrienne - BA, PhD (Director, PhD Program)
- Fuller-Thomson, Esme - BA, MSW, PhD
- Lichtman, Ernie - BA, MA, PhD
- MacFadden, Robert - BA, BA, MSW, PhD
- McDonald, Lynn - PhD
- Mishna, Faye - BA, PhD
- Newman, Peter - AB, MA, MSW, PhD, PhD
- Neysmith, Sheila - BSc, MSW, DS
- Nicholas, David - BSW, MSW, DPhil
- Regehr, Cheryl - AB, MA, PhD (Dean)
- Shera, Wes - MA, PhD
- Shlonsky, Aron - AB, MPH, MSW, DPhil
- Stern, Susan - DSW
- Trocme, Nicolas - PhD
- Tsang, Ka Tat - BSc, PhD
- Williams, Charmaine - DSW (Associate Dean, Academic)

Members Emeriti

- Bellamy, Donald - BA, BSW, MSW, DSW
- Breton, Margot - BA, MSW
- George, Usha - BSc, BEd, MA, MA, PhD
- Irving, Howard - BS, MSW, DSW
- Lang, Norma - BA, BSW, PhD
- Marziali, Elsa - BA, MSW, DSW
- Meeks, Donald - BA, MSW, DSW
- Schlesinger, Benjamin - BA, MSW, PhD
- Shapiro, Ben - BA, BSW, MSW, DSW
- Turner, Francis - PhD
- Wells, Lilian - BA, BSW, BA, MSW

Associate Members

- Anucha, Uzo - BSW, MSW, PhD
- Bhuyan, Rupaleem - BA, MA, PhD
- Blakely, Christine (Cindy) - BA, MSW
- Brennen, David - BA, MSW, PhD
- Dimitropoulos, Gina - BA, MSW, PhD
- Donahue, Peter - BSc, BA, DSW
- Fallon, Barbara - BA, MSW, PhD
- Faucher, Sheila - BA, MSc, PhD
- Fleischcr, Les - BA, MSW, DSW
- Flicker, Sarah - BA, MPH, PhD
- Flynn, Robert - BA, BTH, MA, PhD
- Frollic, B Michael - BA
- Gadalla, Tahany - BASc, MS, MMath, EdD
- Gold, Nora - BSW, MSW, DSW
- Goodman, Deborah - BA, MSW, DSW
- Herie, Marilyn - BA, MSW, DSW
- Ikocovic, Abel - MD
- Jeffries, Joel - MA, MB
- Langley, John - LMCC, MD
- LeBlanc, Vicki - PhD
- Lee, Eunjung - BSW, MSW, PhD
- Levine, Deborah - BA, MA, MSW, PhD
- Litvack, Andrea - BSW, MSW
- MacMillan, Harriet - MSc, MD
- Maier, Sarah - BSW, MSc, DPhil
- McNeill, Ted - BA, MSc, DPhil
- Mensah, Joseph - BA, MA, PhD
- Murdie, Robert - BA, MA, PhD
- Myers, Ted - BA, MSW, MSc, PhD
- Pepler, Debra - BA, BEd, MSc
- Power, Roxanne - BA, BSW, MSW
- Ravitz, Paula - DPSYCH, BA, MD
- Saini, Michael - BSW, BA, BA, MSW, PhD
- Sakamoto, Izumi - DS
- Simons, Kelsey - BA, MSW, DPhil
- Sinding, Christina - BA, MA, PhD
- Skinner, Wayne - MSW
- Stewart, Malcolm - DS
- Stoddart, Kevin - BA, MSW, PhD
- Swift, Karen - AB, MSW, PhD
- Wesley-Esquimaux, Cynthia - BA, MA, PhD
Sociology

Faculty Affiliation
Arts and Science

Degree Programs Offered
Sociology – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Addiction Studies
   • Sociology, MA, PhD
2. Aging, Palliative and Supportive Care Across the Life Course
   • Sociology, MA, PhD
3. Asia-Pacific Studies
   • Sociology, MA
4. Environmental Studies
   • Sociology, MA, PhD
5. Ethnic and Pluralism Studies
   • Sociology, MA, PhD
6. International Relations
   • Sociology, MA
7. Jewish Studies
   • Sociology, MA, PhD
8. Knowledge Media Design
   • Sociology, MA, PhD
9. Women and Gender Studies
   • Sociology, MA, PhD

Overview
The Master of Arts program helps students develop their theoretical perspectives and research skills. It provides solid basic training in honing research skills for the public and private sectors. It also provides a strong foundation in sociological training for those who plan to pursue a doctoral degree in sociology. Students can choose to take the program on a part-time or full-time basis.

The Doctor of Philosophy program prepares students for careers in teaching and research. The program trains students to conduct theoretically informed and methodologically sophisticated state-of-the-art sociological research. Graduates will be able to conduct independent research and to communicate their research in a variety of contexts. Therefore, the program is designed to provide both a broad knowledge of the discipline and training in basic research. Students are expected to acquire autonomy in conducting research, preparing scholarly publications, and participating in professional conferences. These objectives are achieved through a combination of course work, participation in seminars, preparation of comprehensive examinations, paid work as research and teaching assistants, preparing papers for conference presentation, and supervised dissertation research.

Contact and Address
Web: know.soc.utoronto.ca/index.php
E-mail: sociology.dept@utoronto.ca
Telephone: (416) 978-3414
Fax: (416) 978-3963

Department of Sociology
University of Toronto
725 Spadina Avenue
Toronto, Ontario M5S 2JH
Canada

Degree Programs
Sociology

Master of Arts

Minimum Admission Requirements
- Four-year BA or its equivalent with 5.0 full-course equivalents (FCE) 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’ on-line application, 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 typed statement of interest indicating research interests and reasons for applying to study Sociology at the University of Toronto.
- 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 facility 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: 580 with 5 on the Test of Written English
  - Computer-based TOEFL exam: 237 with 5 on the essay rating component
  - Internet-based TOEFL exam: 93/120 with 22/30 on the writing and speaking sections.

Program Requirements
- Students have the option of completing the master’s degree in one of two ways:
Degree Programs by Graduate Unit

Sociology

8 half-courses (4.0 FCE) within 9 months (the preferred option for those proceeding to the PhD) or
6 half-courses (3.0 FCE) and a research paper within 12 months.

All master's students must take: SOC 6001H Classical Sociological Theory, SOC 6302H Statistics for Sociologists, SOC 6712H Qualitative Methods I.
The choice of courses in all programs must be approved by the Department. Students must maintain a B average to be recommended for the MA degree.
The MA degree may be pursued on a full-time or part-time basis. Part-time students must complete the course requirements within five years from date of entry.

Doctor of Philosophy

Minimum Admission Requirements

The normal requirement is completion of the MA or its equivalent, with at least an A- standing. All students must demonstrate that their MA, or equivalent, includes course work equivalent to Classical Social Theory, Social Statistics, and Qualitative Methods I. Some students may be required to take prescribed additional courses.
The Department may recommend admission directly after completion of a four-year BA 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's on-line 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 typed statement of interest indicating research interests and reasons for applying to study Sociology at the University of Toronto.
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 facility 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: 580 with 5 on the Test of Written English
Computer-based TOEFL exam: 237 with 5 on the essay rating component
Internet-based TOEFL exam: 93/120 with 22/30 on the writing and speaking sections.

Program Requirements

4.0 full-course equivalents (FCE). These must include: SOC 6101H Contemporary Sociological Theory, SOC 6707H Intermediate Data Analysis, SOC 6711Y Research Practicum. If a student has already taken these courses at the graduate level, other courses will be substituted to maintain the four FCE total.
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.
Two comprehensive examinations which must be completed by the end of the second year of residence.
Preparation of an original thesis, under the supervision of a committee of the faculty staff, and its oral defense.
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.
Students who enter the doctoral program directly from a four-year BA will be required to take the three half-courses (1.5 FCE) that are required at the MA level in addition to the standard PhD requirements.
Two years of residence.

Course List

For details on course offerings check with departmental Graduate Office.

Theory and Methods of Sociology—Core Courses
SOC 6001H Sociological Theory I
SOC 6101H Sociological Theory II
SOC 6201H Sociological Theory III
SOC 6301H Survey Methods
SOC 6302H Statistics for Sociologists
SOC 6303H Field Methods
SOC 6501H Research Design and Hypothesis Testing in Sociology
SOC 6502H The Sociology Curriculum
SOC 6707H Intermediate Data Analysis
SOC 6708H Advanced Data Analysis
SOC 6710H The Logic of Social Inquiry
SOC 6711Y Research Practicum
SOC 6712H Qualitative Methods I
SOC 6713H Qualitative Methods II
SOC 6714H Historical Methods Using Census Data
SOC 6715H Historical Sociology
SOC 6716H Survey Methods II—Longitudinal Surveys
Areas of Specialization

Immigration and Ethnicity
SOC 6002H Immigration I
SOC 6003H Immigration II
SOC 6009H Ethnicity I
SOC 6109H Ethnicity II

Health and Mental Health
SOC 6022H Sociology of Health
SOC 6023H Sociology of Mental Health I
SOC 6122H Sociology of Mental Health II
SOC 6123H Sociology of Addiction
SOC 6126H The Social Ecology of Health

Networks and Community
SOC 6008H Network Analysis I
SOC 6108H Network Analysis II
SOC 6214H Sociology of Urbanization
SOC 6314H Community
SOC 6414H Urban Organization

Crime and Socio-Legal Studies
CRI 3140H Special Topics in Criminology
SOC 6006H Deviance I
SOC 6106H Deviance II
SOC 6206H The Sociology of Deviance and Control
SOC 6506H Design and Analysis of Research on Deviance and Control

Gender and Family
SOC 6017H Sociology of Families I
SOC 6117H Sociology of Families II
SOC 6019H Gender Relations I
SOC 6119H Gender Relations II

Stratification, Work, and Labour Markets
SOC 6012H Sociology of Work I
SOC 6112H Sociology of Work II
SOC 6013H Social Inequality I
SOC 6113H Social Inequality II
SOC 6312H Social Aspects of Technology and Work

Political Sociology
SOC 6005H Social Change and Development I
SOC 6105H Social Change and Development II
SOC 6010H Political Sociology I
SOC 6110H Political Sociology II
SOC 6014H Environmental Sociology I
SOC 6114H Environmental Sociology II
SOC 6125H Theories of Social Change

Other Courses
SOC 6016H Social Demography I
SOC 6116H Social Demography II
SOC 6018H Sociology of Religion I
SOC 6118H Sociology of Religion II
SOC 6021Y Sociology and the Policy Process in Canada
SOC 6124H The Life Course in Modern Society
SOC 6514H Social Ecology
SOC 6516H Sociology of Culture
SOC 6517H Sociology of Culture II

Special Reading Courses
SOC 6015H A reading course or individual research in an approved field I
SOC 6115H A reading course or individual research in an approved field II

MA Research Paper
SOC 6215Y M. A. Research Paper

Graduate Faculty

Full Members
Andersen, Robert - BA, MA, PhD
Baber, Zaheer - PhD
Baldus, Bernd - MA, DRRERPOL
Blute, Marion - BA, MA, PhD
Bodemann, Michal - MA, PhD
Boyd, Monica - BA, MA, PhD
Brownfield, David - PhD
Bryant, Joseph - MA, PhD
Brym, Robert - BA, MA, PhD
Calzavara, Liviana - BA, MA, PhD
Eichler, Margrit - MA, PhD, LL.D
Erickson, Bonnie - BA, MA, PhD
Erickson, Patricia - BA, MA, PhD
Fong, Eric - PhD
Fox, Bonnie - AB, PhD
Friedmann, Harriet - AB, MA, PhD
Gartner, Rosemary - BA, AA, MS, PhD
Gillis, Ronald - BA, MA, PhD
Hannah-Moffat, Kelly - PhD
Hannigan, John - BA, MA, PhD
Hsiung, Ping-Chun - PhD
Hsiung, Ping-Chun - PhD
Jones, Charles - BA, MA, PhD
Kervin, John - BA, PhD
Kruttschnitt, Candace - BA, MA, MPH, PhD
Magee, William - PhD
Marshall, Victor - BA, MA, PhD
Myles, John - BA, BTH, MA, PhD
O’Toole, Roger - DIPED, BA, MA, PhD
Reitz, Jeffrey - PhD
Roman, Richard - BA, MA, PhD
Salaff, Janet - BA, MA, PhD
Sev’er, Aysan - BA, MA, PhD
Single, Eric - BA, PhD
Sorenson, Ann Marie - PhD
Tanner, Julian - DIPED, BSc, MA, PhD
Taylor, Judith - BA, PhD
Tepperman, Lorne - BA, MA, PhD
Ungar, Sheldon - BA, MA, PhD
Veugelers, Jack - PhD
Wellman, Barry - BA, MA, PhD, PhD
Welsh, Sandy - BA, MA, PhD (Associate Chair, Graduate Studies)
Wheaton, Blair - PhD (Chair & Graduate Chair)

Members Emeriti
Breton, Raymond - BA, MA, PhD
Campbell, Douglas - BA, MA, PhD
Hagan, John - BA, MA, PhD
Harvey, Edward - BA, MA, PhD
Howell, Nancy - BA, PhD
Isajiw, Wsevolod - BA, MA, PhD
Magill, Dennis - BA, MA, PhD
Michelson, William - AB, AM, PhD
Silva, Edward - BA, MA, PhD
Simpson, John - BA, BD, MTh, PhD
Spencer, Metta - AB, MA, PhD
Zeitlin, Irving - BA, MA, PhD

Associate Members
Baumann, Shyon - BA, MA, PhD
Berry, Brent - BS, PhD
Cranford, Cynthia - MA, PhD
Dinovitzer, Ronit - BA, MA, PhD
Hermer, Joseph - PhD
Johnston, Josee - AB, MA, PhD
Korteweg, Anna - BA, MA, PhD
Landolt, Patricia - BA, MA, PhD
Leschziner, Vanina - BA, BA, AM, DPhil
Lexchin, Joel - BSc, MSc, MD
Liddle, Kathleen - BA, AM, PhD
Marin, Alexandra - BA, MA, PhD
Maurutto, Paula - DPhil
Peng, Ito - BSW, BSc, MA, PhD
Schieman, Scott - BA, MA
Wayne, Jack - BA, AM, PhD
Zhang, Weiguo - PhD
Sociology and Equity Studies in Education

Faculty Affiliation
Ontario Institute for Studies in Education

Degree Programs Offered
Sociology in Education – MA, MEd, EdD, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aboriginal Health
   • Sociology in Education, MA, MEd, EdD, PhD
2. Comparative, International, and Development Education
   • Sociology in Education, MA, MEd, EdD, PhD
3. Environmental Studies
   • Sociology in Education, MA, MEd, EdD, PhD
4. Ethnic and Pluralism Studies
   • Sociology in Education, MA, MEd, EdD, PhD
5. Sexual Diversity Studies
   • Sociology in Education, MA, MEd, EdD, PhD
6. South Asian Studies
   • Sociology in Education, MA, MEd, EdD, PhD
7. Women and Gender Studies
   • Sociology in Education, MA, MEd, EdD, PhD

Overview
The Department of Sociology and Equity Studies in Education (SESE) offers a full range of programs leading to Master of Arts, Master of Education, Doctor of Education, and Doctor of Philosophy degrees. These programs offer students preparation in sociology in education with an emphasis on equity issues.

Sociology in education is the study of the social context of education. The department understands education as a broad, multi-faceted concept, that is, a social organization of knowledge, teaching, and learning which takes place both within and beyond schooling. “Equity” is the lens through which we approach these phenomena. We blend with this vision the principles of interdisciplinarity and community engagement, and in our programs we actively seek to bridge divisions between theory and practice.

The department offers opportunities to investigate and integrate several thematic areas. Students are encouraged to integrate their studies across a variety of areas. Included in our offerings are courses related to Aboriginal and Indigenous studies in education, critical race and anti-racism studies in education, culture, communication and critical education, disability studies in education, feminist studies and gender relations in education, les études francophones, learning, work and social change, and queer studies in education.

Contact and Address
Web: www.oise.utoronto.ca/depts/sese
Email: kpearson@oise.utoronto.ca
Telephone: (416) 978-0397
Fax: (416) 926-4751

Department of Sociology and Equity Studies in Education
The Ontario Institute for Studies in Education of the University of Toronto
252 Bloor Street West
Toronto, Ontario M5S 1V6
Canada

Degree Programs
Sociology in Education

Master of Arts
At press time, program requirements for the MA program were pending final approval.

Minimum Admission Requirements
• The department welcomes applicants with diverse but relevant backgrounds.
• Students are admitted under the general regulations of the School of Graduate Studies.
• Admission to the MA program requires an appropriate four-year University of Toronto degree in sociology or a related discipline or its equivalent from a recognized university, with standing equivalent to a University of Toronto mid-B or better in the final year.
• Applicants are required to submit the following. Incomplete applications may be subject to processing delays or rejection.
  o a careful statement of intellectual interests and concerns relevant to sociology and equity studies in education as well as reasons for undertaking a program in the department, including a statement of preference for one or more of the departmental research areas;
  o two letters of reference, preferably from university instructors with whom the applicant has studied or worked;
  o at least one sample of written work in the social sciences.
• See the OISE/UT Graduate Bulletin for further information.

Program Requirements
• The MA is a research-based degree program which can be taken on a full-time or part-time basis.
• 3.0 full-course equivalents (FCE), of which at least 2.0 must be SESE courses. Students who are registered in a collaborative program may apply to have their SESE 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 SESE credit.

- Additional courses may be required of some students, and some students may be required to take specified courses in research methods and/or sociological theory.
- Students complete a thesis which may lay the groundwork for doctoral research.

**Master of Education**

*At press time, program requirements for the MEd program were pending final approval.*

**Minimum Admission Requirements**

- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- Admission to the MEd requires an appropriate four-year University of Toronto degree or its equivalent from a recognized university, with standing equivalent to a University of Toronto mid-B or better in the final year.
- Applicants must have the equivalent of 12 months' professional experience.
- Applicants are required to submit the following. Incomplete applications may be subject to processing delays or rejection.
  - a careful statement of intellectual interests and concerns relevant to sociology and equity studies in education as well as reasons for undertaking a program in the department, including a statement of preference for one or more of the departmental research areas;
  - two letters of reference, preferably from university instructors with whom the applicant has studied or worked;
  - at least one sample of written work in the social sciences.
- See the OISE/UT Graduate Bulletin for further information.

**Program Requirements**

- Students choose to complete the MEd program by one of three options:
  - Option II - 4.0 full-course equivalents (FCE) plus a Major Research Paper (MRP)
  - Option III - 3.0 full-course equivalents (FCE) plus a thesis
  - Option IV - 5.0 full-course equivalents (FCE)
- At least half of the FCE in an MEd program must be SESE courses. Students who are registered in a collaborative program may apply to have their SESE 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 SESE credit.
- The degree may be completed on a full-time or part-time basis.

**Course List**

Not all courses are offered every year. Please consult OISE/UT’s Graduate Studies Course Schedule.

**Master's Level**

- SES 1900H Introduction à la sociologie de l'éducation
- SES 1900H Introduction to Sociology in Education
- SES 1902H Introductory Sociological Research Methods in Education
- SES 1904H Introduction to Sociological Theory in Education
- SES 1905H Qualitative Approaches to Sociological Research in Education
- SES 1907H L'éducation multilingue et multiculturelle: l'analyse sociologique
- SES 1909H Eco-Sociology
- SES 1911H Sociologie de l'éducation spécialisée
- SES 1912H Foucault and Research in Education and Culture: Discourse, Power and the Subject
- SES 1913H SESE Learning to Succeed in Graduate School (Non Credit)
- SES 1915H Education and Popular Culture
- SES 1919H Environmental Sustainability and Social Justice
- SES 1921Y The Principles of Anti-Racism Education
- SES 1922H Sociology of Race and Ethnicity
- SES 1924H Modernization, Development, and Education in African Contexts
- SES 1925H Indigenous Knowledge and Decolonization: Pedagogical Implications
- SES 1925H Savoir indigène et décolonization
- SES 1926H Race, Space and Citizenship: Research Methods
- SES 1927H Migration and Globalization
- SES 1951H L’École et la communauté
- SES 1951H The School and the Community
- SES 1954H Marginality and the Politics of Resistance
- SES 1956H Social Relations of Cultural Production in Education
- SES 1957H Doing Disability in Theory and Everyday Life
- SES 1959H Theoretical Frameworks in Culture, Communications and Education
- SES 1982H Women, Diversity, and the Educational System
- SES 1983H Gender, Race and Historical Sociology
- SES 1985H Women’s Learning, Women’s Health Movements, and the Health Professions
- SES 1989H Black Feminist Thought
- SES 1992H Feminism and Poststructuralism in Education
- SES 2910H Changes in Families and Policy Consequences for Government and Education
- SES 2915H Managing Educational and Employment Diversity
- SES 2940H Rethinking Marxism and Education
- SES 2941H Social Inequities and Education: Theoretical Implications
**Degree Programs by Graduate Unit**

**Sociology and Equity Studies in Education**

- SES 2942H Education and Work
- SES 2970H Indigenous Peoples and Medias: Theorizing, Decolonizing, Cultural Vitalization and Self-Determination
- SES 2998H Individual Reading and Research in Sociology and Equity Studies in Education: Master's Level
- SES 2999H Special Topics in Sociological Research in Education
- JTE 1952H Language, Culture, and Education
- JTE 1952H Langue, culture et éducation
- JTE 2912H Teacher's Work: Classrooms, Careers, Cultures, and Change

**Doctor of Education**

The EdD degree program is distinct from the PhD in that students are encouraged to orient toward applied and theoretical dimensions of professional educational practice understood as knowledge, teaching and learning which takes place within or beyond schooling.

*At press time, program requirements for the EdD program were pending final approval.*

**Minimum Admission Requirements**

- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- Admission to the EdD 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 standing equivalent to a University of Toronto B+ or better in master's courses.
- Applicants must have the equivalent of 12 months' professional experience.
- Applicants are required to submit the following. Incomplete applications may be subject to processing delays or rejection.
  - a careful statement of intellectual interests and concerns relevant to sociology and equity studies in education as well as reasons for undertaking a program in the department, including a statement of preference for one or more of the departmental research areas;
  - two letters of reference, preferably from university instructors with whom the applicant has studied or worked;
  - at least one sample of written work in the social sciences.
- See the OISE/UT Graduate Bulletin for further information.

**Program Requirements**

- The EdD degree may be pursued on a full-time or part-time basis
- 4.0 full-course equivalents (FCE), of which at least 2.0 FCE must be SESE courses. Students who are registered in a collaborative program may apply to have their SESE 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 SESE credit.
- EdD students may begin their studies on a part-time basis. However, they must register full-time for a minimum of two consecutive sessions, not including summer, of on-campus study and then maintain continuous registration full-time subsequently until all degree requirements, including the thesis, are completed.

**Doctor of Philosophy**

The PhD degree program is designed to provide opportunities for advanced study, original research, and theoretical analysis.

*At press time, program requirements for the PhD program were pending final approval.*

**Minimum Admission Requirements**

- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- PhD students who are admitted without sufficient previous study in sociology or a cognate discipline may be required to take additional courses.
- Applicants are required to submit the following. Incomplete applications may be subject to processing delays or rejection.
  - a careful statement of intellectual interests and concerns relevant to sociology and equity studies in education as well as reasons for undertaking a program in the department, including a statement of preference for one or more of the departmental research areas;
  - two letters of reference, preferably from university instructors with whom the applicant has studied or worked;
  - at least one sample of written work in the social sciences.
- See the OISE/UT Graduate Bulletin for further information.

**Program Requirements**

- PhD students have the option of undertaking the program on a full-time or flexible-time basis.
  - Full-time PhD students must maintain full-time status throughout their program of study and complete the requirements of their degree within six years. Students take 3.0 full-course equivalents (FCE), though additional courses may be required, and some students may be required to take specified courses in research methods and/or sociological theory. At least 3/4 of students' PhD course work must be taken within SESE. Students who are registered in a collaborative program may apply to
have their SESE 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 SESE credit.

- **Flexible-time** PhD students register full-time during the first four years and part-time during subsequent years of the program. The flexible-time PhD degree is designed to accommodate demand by practicing professionals for a PhD degree that permits continued employment in areas related to their fields of research. Students must complete the requirements of their degree within eight years. Degree requirements for the flexible-time PhD programs are the same as for full-time PhD studies: at least 3.0 FCE of which at least 2.0 FCE must be taken in SESE with the possibility to apply for a reduction of 0.5 FCE in the SESE course requirement if the student is also registered in a collaborative program. Students would normally take at least one specialized research methods course.

- All PhD students must also successfully complete the non-credit course SES 1913H *SESE Thesis Students’ Seminar*.
- All PhD students must complete a comprehensive examination.
- All PhD students must submit a thesis and defend it at a 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 the third year of registration, and must have completed all other program requirements.

### Course List

Not all courses are offered every year. Please consult OISE/UT's Graduate Studies Course Schedule.

#### Doctoral Level

- **SES 3900H** Advanced Issues in Sociological Research Methods in Education
- **SES 3910H** Advanced Seminar on Race and Anti-Racism Research Methodology in Education
- **SES 3911H** Cultural Knowledges, Representation and Colonial Education
- **SES 3912H** Race and Knowledge Production: Research Methods
- **SES 3913H** En/Coding Domination: Theorizing Power Relations Based on Race, Gender, Class and Sexuality
- **SES 3914H** Anti-Colonial Thought and Pedagogical Challenges
- **SES 3921H** Language and Social Difference in Education: Comparative Perspectives
- **SES 3929H** Advanced Disability Studies: Transgressive Bodies/Transgressive Methods
- **SES 3930H** Methods to Avoid Sexist, Racist and Ableist Biases in Research
- **SES 3932H** Women and Higher Education
- **SES 3933H** Theorizing Transnationality: Feminist Perspectives
- **SES 3942H** Innovations in Education: A Comparative Analysis
- **SES 3943H** Sociology of State Formation and Genealogies of Government
- **SES 3949H** Advanced Studies in Learning and Work: Class Conflict, Labour and Learning in the Information Age
- **SES 3951H** Political Economy, Cultural Forms and the Learning Society
- **SES 3952H** Sexism, Racism, Colonialism: Pedagogical Implications
- **SES 3997H** Practicum in Sociology and Equity Studies in Education
- **SES 3998H** Individual Reading and Research in Sociology and Equity Studies in Education: Doctoral Level
- **SES 3999H** Special Topics in Advanced Sociological Research in Education
- **JSA 5147H** Language, Nationalism and Post-Nationalism

### Graduate Faculty

#### Full Members

Acker, Sandra - BA, MA, PhD
Dehli, Kari - BA, MA, PhD (*Chair & Graduate Chair*)
Dei, George JS - BA, MA, PhD
Eichler, Margrit - MA, PhD, LLDD
Farmer, Diane - BA, MSS, PhD
Gaskell, Jane - BA, EdD
Heller, Monica - BA, MA, PhD
Iseke-Barnes, Judy - BA, PhD
Lenskyj, Helen - BA, MA, PhD
Livingstone, David - BA, PhD
Olson, Paul - BA, MA
Quarter, Jack - PhD
Razack, Sherene - BA, MA, PhD
Sawchuk, Peter - BSc, BEd, PhD
Simon, Roger - BS, PhD
Titchkosky, Tanya - BA, MSS, PhD (*Coordinator of Graduate Studies*)
Trotz, Alissa - AB, MPH, PhD
Walcott, Rinaldo - BA, MA, PhD
Wane, Njoki - BE, MSc, MEd, PhD

#### Members Emeriti

Pierson, Ruth - BA, MA, PhD
**Associate Members**
Cannon, Martin - MA, PhD
Coloma, Roland Sintos - TD, BA, MA, MA, PhD
Hsiung, Ping-Chun - PhD
Larkin, June - PhD
Michalko, Rod - BA, MA, PhD
Mullen, Ann - BA, MA, PhD
Ng, Roxana - BA, MA, PhD
Thomas, Roslyn - BA, MA
Wiebe, Donald - BTH, BA, MA, PhD
Zoric, Terezia - BEd, BA, MA
Degree Programs by Graduate Unit

Spanish

Faculty Affiliation
Arts and Science

Degree Programs Offered
Spanish – MA, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Editing Medieval Texts
   • Spanish, PhD
2. 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 three fields:
• Spanish Peninsular Literature
• Latin American Literature
• Hispanic Linguistics.
Applicants are accepted 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 course work for the MA is completed.

Degree Programs

Spanish

Master of Arts

Minimum Admission Requirements
• Four-year undergraduate degree or the equivalent from a recognized university in Spanish or a cognate discipline.
• Fluency in spoken and written Spanish with a general background in Hispanic literature and/or linguistics, normally demonstrated through undergraduate course work.
• Applicants apply online and should arrange for electronic submission of the following material:
  o a one-page statement of purpose, outlining the applicant's areas of interest
  o a sample of written work in Spanish (10-12 pages)
  o a TA application form (available from the department's Web site)
  o two letters of recommendation (one of the letters must comment on the applicant's fluency in Spanish)

Program Requirements
• 4.0 full-course equivalents (FCE) at the graduate level.
• MA students specialize in one of three fields:
  o Spanish Peninsular Literature
  o Latin American Literature
  o Hispanic Linguistics
Specialization requires that each student complete course work in accordance with distribution requirements for each field, defined in terms of the various areas of the graduate curriculum. Specific requirements by field are available on the department's Web site.
• With departmental approval, courses may be taken in a cognate discipline (for example, Comparative Literature, French, History, Linguistics, Medieval Studies, Women’s Studies).
• It is the department's expectation that full-time students will complete all program requirements in one academic year. The MA program is also available on a part-time basis. Applicants should be aware that part-time students are not eligible for funding.
• Students in the field Hispanic Linguistics must have completed an introductory course in linguistics.
(LIN 100Y or an equivalent course). Students who have not completed LIN 100Y as part of their undergraduate studies must take this course in the summer directly preceding their admission to the MA program.

**Doctor of Philosophy**

**Minimum Admission Requirements**

- 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
  - a sample of written work in Spanish (10-12 pages)
  - a TA application form (available from the department's Web site)
  - two letters of recommendation (one of the letters must comment on the applicant's fluency in Spanish)

**Program Requirements**

- PhD students specialize in one of three fields:
  - Spanish Peninsular Literature
  - Latin American Literature
  - Hispanic Linguistics
- **4.0 full-course equivalents** (FCE). It is expected that students will complete the required course work during Year 1. However, with the approval of the Graduate Coordinator, up to 1.0 FCE may be taken in Year 2. Each field has distribution requirements; details on the department's Web site.

- By March 15 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.
- The **field examination** centres on two sub-fields of Hispanic literature or linguistics: the sub-field of the student's proposed dissertation research and a sub-field 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 sub-fields for the Field Examination and two reading lists (one for each sub-field). Each reading list should consist of 25-30 items and should include primary and secondary sources. The student's 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, 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 sub-fields that the student has prepared. The written examination will consist of three questions, at least one of which must be answered in Spanish, and will be written in the last two weeks of January. The oral examination will follow in the first two weeks of February; 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 dissertation proposal on the research questions and methodology of his/her proposed research (20-25 pages double-spaced, plus a bibliography) to the Graduate Coordinator by April 25 of his/her second year of enrollment in the program. 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 his/her dissertation proposal in a two hour 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 his/her third year of enrollment 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 his/her area of research. These language requirements may be satisfied by passing the appropriate reading knowledge examinations offered by the various departments of language and literature at the University of Toronto. Significant prior training in a language (such as an undergraduate Major or Minor) will also be accepted as demonstration of reading knowledge.

- Years 3 and 4 are devoted to researching and writing the doctoral dissertation. The Supervisory Committee must normally approve the dissertation before the candidate can proceed to the Final Oral Examination.

- Students fulfill the **residence requirement** by being registered as full-time on-campus and must reside in sufficient geographical proximity to enable them to fulfill 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.
The program must be **completed within six years** of the student's initial enrolment.

**Course List**

Most graduate courses are offered in a regular rotation. As a result, approximately half 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 Web site.

- COL 5019H Cervantes and Humanism
- COL 5029H Reading Cervantes
- JRL 1100Y Introduction to Romance Philology
- JRL 1101H Topics in Romance Laboratory Phonetics and Phonology I: Theory
- JRL 1106H Topics in Romance Laboratory Phonetics and Phonology II
- LIN 1029H Sound Patterns in Language
- LIN 1031H Morphological Patterns in Language
- SPA 1053H History of the Spanish Language
- SPA 1080H Descriptive Grammar of Spanish
- SPA 1081H The Structure of Spanish
- SPA 1082H Sociolinguistics of Spanish
- SPA 1083H Microvariation in Spanish
- SPA 1084H Experimental Approaches to Hispanic Linguistics
- SPA 1088H Spanish Syntax
- SPA 1089H Morphosyntax
- SPA 1097H Second-Language Teaching and Methodology
- SPA 1101H Topics in the Acquisition of Spanish
- SPA 1103H Topics in Spanish Phonology
- SPA 1104H Experimental Approaches to Sound Variation and Change
- SPA 1150H,Y Directed Research in Hispanic Linguistics
- SPA 2021H The Politics of Print
- SPA 2022H Books and Borders
- SPA 2031H Writing that Conquers: Early Colonial Historiography
- SPA 2032H The Spiritual Conquest of the Americas: Empire and Ethnography
- SPA 2033H Representing Colonial Violence and Terror
- SPA 2121H Psychoanalysis and the Passions in Early Modern Literature
- SPA 2187H Comedy and the Comedia in Early Modern Spain
- SPA 2189H Lope and Calderón
- SPA 2277H The Modern Spanish Cuento (1860-1936)
- SPA 2279H Contemporary Hispanic Women’s Writing II
- SPA 2282H The Contemporary Spanish Cuento (1936-Present)
- SPA 2284H Narrative and Political Transition in Contemporary Spain
- SPA 2291H The Urban Experience in Spain
- SPA 2351H Masters of Twentieth-Century Spanish Drama
- SPA 2404H The Latin American Novel
- SPA 2405H Issues of Testimonio
- SPA 2432H Text and Image in Latin American Culture
- SPA 2802H The Politics of Errantry in the Hispanic Caribbean
- SPA 2805H Representations of Women in Latin American Culture
- SPA 2900H Issues in Literary Theory and Hispanic Texts
- SPA 2905H Latin American Cultural Theories
- SPA 2951H Modernism in Latin America
- SPA 3000H,Y Directed Research in Hispanic Literatures

**Graduate Faculty**

**Full Members**
- Blackmore, Josiah - PhD
- Colantoni, Laura - MA, PhD
- Davidson, Robert - BA, AM, PhD
- Jagoe, Eva-Lynn - BA, MA, PhD
- Munjic, Sanda - BA, AM, PhD
- Perez-Leroux, Ana Teresa - MA, PhD
- Rupp, Stephen - BA, MA, MPH, MA, PhD (Chair)
- Sarabia, Rosa - BA, PhD
- Sternberg, Ricardo - BA, MA, PhD

**Members Emeriti**
- Burke, James - BA, MA, PhD
- Ellis, Keith Aa - 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
- Rolph, Wendy - BA, MA, MPH
- Skyrme, Raymond - BA, MA, PhD
- Valdes, Mario - BA, MA, PhD
- Webster, Jill - BA, MA, PhD

**Associate Members**
- Cuervo, Maria Cristina - PhD
- Ramirez-Salazar, Manuel - BA, MA, PhD
Speech-Language Pathology

Faculty Affiliation
Medicine

Degree Programs Offered
Speech-Language Pathology – MHSc, MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. Aging, Palliative and Supportive Care Across the Life Course
   - Speech-Language Pathology, MSc, PhD
2. Neuroscience
   - Speech-Language Pathology, MSc, PhD

Overview
Speech-language pathology is concerned with normal and disordered human communication and swallowing. The Department offers professional and research degree programs leading to careers in the discipline.

The Master of Health Science program in speech-language pathology is a professional graduate program that may be taken on a full-time or part-time basis. The primary aim of the program is to prepare practitioners for entry into the practice of speech-language pathology. Graduates are prepared to assume varied professional responsibilities including the assessment, treatment, and management of speech, voice, language, and swallowing disorders. Course work and clinical internships are integrated and sequenced. There is a strong research to practice focus and students complete a comprehensive portfolio requirement in their final year.

The Master of Science degree is a full-time program that prepares students to engage in the scientific study of normal and disordered speech, language, and swallowing processes in children and adults. The MSc is a research-oriented program and does not prepare students for clinical practice. Although the primary objective of the MSc program is to prepare students for doctoral studies in speech and language sciences, successful completion of the program does not guarantee entrance into the PhD program.

The purpose of the Doctor of Philosophy program is to prepare students to contribute independently to the advancement of scientific knowledge in their area of specialization within the discipline of speech-language pathology.

Contact and Address
Web: www.slp.utoronto.ca
E-mail: speech.path@utoronto.ca
Telephone: (416) 978-2765
Fax: (416) 978-1596

Department of Speech-Language Pathology
University of Toronto
Rehabilitation Sciences Building
Room 160, 500 University Avenue
Toronto, Ontario M5G 1V7
Canada

Degree Programs
Speech-Language Pathology

Master of Health Science

Minimum Admission Requirements
- Four-year University of Toronto bachelor's degree, with at least a mid-B standing in the final year, or its equivalent from another recognized university.
- Prerequisite courses in child development, linguistics, phonetics, statistics, and human physiology.
- Facility in oral and written English 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 facility 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:
  - Paper-based TOEFL: 600 with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE)
  - Computer-based TOEFL: 250 with 5 on the essay rating component and 50 on the TSE.
  - 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, TWE, and TSE, the Department will accept one of the following:
  - the Michigan English Language Assessment Battery (MELAB) with a minimum score of 85
  - 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 during which their mastery of oral English for meeting clinical requirements will be assessed.
• See the departmental Web site for a full listing of admission requirements.

Program Requirements
• The professional MHSc program is divided into 5 academic and 4 clinical units. Each academic unit is made up of related course work. Teaching within and across units emphasizes integrated learning experiences. Academic units are followed by full-time clinical placements, each lasting between 4 and 10 weeks for a total of 31 weeks of clinical experience throughout the 2 year program. Students should anticipate receiving at least one placement outside of metropolitan Toronto. Students must accept placements offered to them and are responsible for all travel and accommodation costs.
• The MHSc program does not have a thesis requirement; however, prior to graduation, all MHSc students will be required to complete a portfolio that demonstrates their proficiency in key areas of professional practice.
• Students enrolled in the full-time program must complete all requirements within two consecutive years.
• Part-time students must choose one of three options for program completion: four-year, five-year, or six-year. Each option includes a prescribed sequence of academic and clinical units that must be followed. Part-time students must complete clinical units on a full-time basis (five days per week).

Courses for the MHSc Program
Consult the departmental Web site for a listing of courses offered during each academic year.

The first year of the program for full-time students will consist of:
SLP 1500Y Internship (Credit/No Credit)
SLP 1502Y Anatomy and Embryology
SLP 1503Y Articulation and Related Disorders
SLP 1505Y Child Language I
SLP 1506H Child Language II
SLP 1507H Clinical Laboratory in Speech-Language Pathology
SLP 1514Y Applied Audiology
SLP 1516H Aural Rehabilitation
SLP 1520H Principles of Clinical Practice
SLP 1521H Augmentative Communication
SLP 1522Y Speech Physiology and Acoustics
SLP 1529H Fluency Disorders
SLP 1530H Voice Disorders
SLP 1532H Clinical Laboratory in Hearing Disorders: Aural Rehabilitation or Audiology Component (Credit/No Credit)

The second year of the program for full-time students will consist of:
SLP 1508Y Advanced Clinical Laboratory in Speech-Language Pathology
SLP 1525H Structurally Related Disorders
SLP 1527Y Physical Analysis of Speech Disorders
SLP 1528Y Research in Speech-Language Pathology
SLP 1533Y Aphasics
SLP 1534H Motor Speech Disorders
SLP 1535H Advanced Principles of Clinical Practice
SLP 1536H Swallowing Disorders
SLP 1538H Neurocognitive Communication Disorders
SLP 2500Y Advanced Internship

Master of Science

Minimum Admission Requirements
• Four-year degree, or its equivalent, in speech-language pathology or a related discipline.
• Prior to admission, an applicant must identify a faculty member who has agreed to serve as research supervisor. The research supervisor may want 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 was not English, must demonstrate facility in the English language through the successful completion of one of the English proficiency tests listed in this calendar. See General Regulations, English Language Facility.

Program Requirements
• Course requirements are determined by the student’s supervisory committee. Normally, the student is required to complete satisfactorily a minimum of 2.0 full-course equivalents (FCE), consisting of at least 1.0 FCE in research design and methodology, and at least 1.0 FCE in the area of research interest.
• One-year residency period which typically is sufficient for completion of the course work.
• Participate in student and faculty research seminars.
• Engage in a research project, present the results in a written thesis, and complete a successful oral defence of the thesis.
• Reclassification. 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 direct advancement to the PhD program. Examination normally is undertaken following the completion of at least one session and within 18 months of registration in the MSc program.

Courses which may continue over a program. The course is graded when completed.
+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
Doctor of Philosophy

Minimum Admission Requirements
- Normally, applicants are expected to have completed a MSc or MA degree in speech-language pathology, or a related discipline, with a minimum of a B+ average over the course of the program.
- Demonstrated advanced research qualifications in speech and language sciences.
- Prior to admission, an applicant must identify a faculty member who has agreed to serve as research supervisor. The research supervisor may want 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 was not English, must demonstrate facility in the English language through the successful completion of one of the English proficiency tests listed in this calendar. Students who graduated from a university outside North America are strongly encouraged to contact the Coordinator of Graduate Studies before applying. See General Regulations, English Language Facility.
- Reclassification. 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 direct advancement to the PhD program. Examination normally is undertaken following the completion of at least one session and within 18 months of registration in the MSc program.

Program Requirements
- Course requirements are determined by the student's supervisory committee and consist of a minimum of 3.0 full-course equivalents (FCE).
- Students must demonstrate evidence of adequate knowledge in research design and statistics or must include suitable course work as determined by the supervisory committee.
- Participate in student and faculty research seminars in addition to their regular course requirements.
- The doctoral program consists of 2 phases, each taking approximately 18 to 24 months to complete. During the first phase of the program, the student completes all course requirements and initiates the development of a research thesis proposal, including the collection of preliminary experimental data, if appropriate. At the conclusion of this second phase, the student defends the research thesis at a final oral examination in accordance with the regulations of the School of Graduate Studies.
- The PhD program normally extends over three to four years. Students complete a residency requirement during the first two years of the program.

Courses for the MSc and PhD Programs
- SLP 3001H Theoretical Foundations of Communication Sciences
- SLP 3002H Research Methodologies in Communication Sciences
- SLP 3003H Research Seminar
- SLP 3004H,Y Reading Seminar
- SLP 4000H Research Seminar
- SLP 4001H Philosophical and Theoretical Foundations of Communication Sciences
- SLP 4007H,Y Reading Seminar

Special Courses Offered to Students from Other Departments
- SLP 2501H Special Topics in Communication Disorders
- SLP 2502Y Specialized Study in Communication Disorders

Graduate Faculty

Full Members
Abel, Sharon - BA, MA, PhD
Bressmann, Tim - MPH, PhD
De Nil, Luc - MSc, PhD (Chair & Graduate Chair)
Eriks-Brophy, Alice - BED, AB, MSL, PhD
Girolametto, Luigi - BA, MSc, PhD (Coordinator of Graduate Studies)
Hyde, Martyn - BSc, PhD
Johnson, Carla - PhD
Martino, Rosemary - BS, MA, DPH
Rochon, Elizabeth - BA, MSc, PhD
Smyth, Ronald - BA, MSc, PhD
Square, Paula Ann - BSc, MA, PhD
Steele, Catriona - BA, MSc, PhD
Stewart, Patricia - BSc, MSc, PhD
van Lieshout, Pascal - MA, MA, PhD

Associate Members
Bradley, Kimberley - BA, MHSc, PhD
Ellwood, Lynn - BSc(CD), MA
Irish, Jonathan - MSc, MD
Kagan, Aura - BAA, BA, MA, PhD
Kroll, Robert - BSc, MSc, PhD
Leonard, Carol - BA, MAsc, PhD
McQueen, Lisa - BA, MHSc
Parnes, Pauline - BSc
Roberts, Sheila - BSc, MD
Wagner, Susan - BSc, MSc
Weitzman, Elaine - BA, MEd
Yunusova, Yana - MS, MA, PhD

Courses which may continue over a program. The course is graded when completed.
Faculty Affiliation
Arts and Science

Degree Programs Offered
Statistics – MSc, PhD

Overview
Statistics is the study of random phenomena and as such encompasses a broad range of scientific, industrial, and social processes. The past several decades have witnessed a vast impact of statistical methods on virtually every branch of knowledge and empirical investigation. The Department of Statistics offers opportunities for study and research in the fields of (a) Statistical Theory and Applications and (b) Probability, leading to the Master of Science and the Doctor of Philosophy degrees. The Department has substantial computing facilities available and operates a statistical consulting service for the University's research community. Programs of study may involve association with other departments such as Mathematics, Mechanical and Industrial Engineering, Computer Science, or Public Health Sciences. The Department maintains an active seminar series and strongly encourages participation by graduate students.

Students are accepted under the general regulations. Proof of English facility must also be shown for all applicants whose first language is not English and who studied at an institution where the language of instruction was other than English.

Interested applicants should refer to the detailed information available in the Graduate Information brochure and on the Department’s web site.

Contact and Address
Web: www.utstat.utoronto.ca
E-mail: grad-info@utstat.utoronto.ca
Telephone: (416) 978-5136
Fax: (416) 978-5133

Department of Statistics
University of Toronto
Sidney Smith Hall
Room 6022, 100 St. George Street
Toronto, Ontario M5S 3G3
Canada

Degree Programs
Statistics

Master of Science
At press time, program requirements for the MSc program were pending final approval.

Minimum Admission Requirements
- Appropriate four-year bachelor's degree with a final year average of at least mid-B from the University of Toronto or its equivalent from another recognized university.
- Recommended background of courses as outlined in the Graduate Information brochure available on Department's Web site.
- The one and two year full-time MSc programs commence in September only; the part-time MSc program may commence in either September or January.
- Applicants who plan to undertake the part-time MSc must qualify for admission to the one-year program.

Program Requirements
All programs must be approved by the Associate Chair for Graduate Studies.

One Year Full-Time Program
Students within this option normally complete:
- 4.0 full course equivalents (FCE), one of which may be an approved supervised reading project OR
- 3.5 FCE comprising STA 3000Y plus five 0.5 FCE.

Two-Year Full-Time Program
Year 1
- Completion of prerequisite and other courses to prepare the student for the one-year MSc program.

Year 2
- 4.0 full-course equivalents (FCE), one of which may be an approved supervised reading project OR
- 3.5 FCE comprising STA 3000Y plus five 0.5 FCE.

Part-Time Program
Students must satisfy the program requirements outlined for the full-time MSc.
Doctor of Philosophy

At press time, program requirements for the PhD program were pending final approval.

Minimum Admission Requirements

- Appropriate University of Toronto master's degree or its equivalent, with an average of at least B+ or demonstrated comparable research competence
- The Department of Statistics considers exceptional applicants directly from undergraduate studies. These applicants must meet additional course requirements.

Program Requirements

PhD Program

- 3.0 full-course equivalents (FCE) including STA 2010H, STA 2201H, STA 2111H, STA 2211H, and STA 3000Y.
- Students are required to pass a comprehensive examination in theoretical statistics, probability, and applied statistics prior to embarking on a thesis.
- Submission of a suitable thesis.
- One-year residence period.
- Further details are found in the Graduate Information brochure available on the department's Web site.

Direct Entry Program

Students admitted to the direct entry program must normally:

- Complete STA 2010H, STA 2201H, STA 2111H, STA 2211H, STA 3000Y plus 2.0 FCE.
- Satisfy a two-year residency requirement.

Course List

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 Graduate Information brochure for courses offered in the current academic year.

STA 1001H Applied Regression Analysis
STA 1002H Methods of Data Analysis
STA 1003H Sample Survey Theory and its Application
STA 1004H Introduction to Experimental Design
STA 1005H Applied Multivariate Analysis
STA 1007H Statistics for Life and Social Scientists
STA 1008H Applications of Statistics
STA 2004H Design of Experiments
STA 2006H Applied Stochastic Processes
STA 2047H Stochastic Calculus
STA 2050H Mathematical Methods for Statistics
STA 2101H Mathematical Methods for Statistics
STA 2102H Methods of Applied Statistics I
STA 2103H Methods of Applied Statistics I
STA 2104H Computational Techniques in Statistics
STA 2105H Nonparametric Methods of Statistics
STA 2106H Introduction to Wavelet Methods in Statistics

STA 2111H Probability Theory I
STA 2112H Mathematical Statistics I
STA 2162H Statistical Inference I
STA 2201H Methods of Applied Statistics II
STA 2202H Time Series Analysis
STA 2209H Lifetime Date Modelling and Analysis
STA 2211H Probability Theory II
STA 2212H Mathematical Statistics II
STA 2262H Statistical Inference II
STA 2270H Introduction to Wavelet Methods in Statistics
STA 2342H Multivariate Analysis I
STA 2442H Multivariate Analysis II
STA 2453H Statistical Consulting
STA 2500H Loss Models
STA 2501H Mathematical Risk Theory
STA 2502H Stochastic Models in Investments
STA 2503H Applied Probability for Mathematical Finance
STA 2505H Credibility Theory and Simulation Methods
STA 2542H Linear Models
STA 2500Y Advanced Theory of Statistics
STA 3003H Advanced Sample Survey Theory and Practice
STA 3047H Stochastic Processes
STA 3077H Research Topics in Probability Theory
STA 3101H Neural Networks and Related Statistical Methods
STA 3102H Stats Theory-Quality Control
STA 3103H Bayesian/Likelihood Asymptotics
STA 3431H Monte Carlo Methods
STA 4000H Supervised Reading Project I
STA 4001H Supervised Reading Project II
STA 4210H Smoothing, Semi- and Non-parametric Regression
STA 4246H Research Topics in Mathematical Finance
STA 4247H Research Topics in Stochastic Processes
STA 4272H Research Topics in Statistics
STA 4273H Research Topics in Bayesian Inference
STA 4274H Research Topics in Statistical Computation
STA 4275H Research Topics in Likelihood Inference
STA 4276H Research Topics in Monte Carlo Methods
STA 4312H Bayesian Linear Models
STA 4315H Computational Methods in Statistical Genetics
STA 4352H Research Topics in Multivariate Statistics
STA 4360H Theory of Pivotal and Direct Inference
STA 4364H Conditional Inference: Sample Space Analysis
STA 4406H Statistical Inference for Stochastic Processes
STA 4412H Topics in Theoretical Statistics
**Graduate Faculty**

**Full Members**
- Angel, Omer - PhD
- Badescu, Andrei - BSc, MSc, DPhil
- Brenner, David - BSc, MSc, PhD
- Broverman, Samuel - BSc, MSc, PhD
- Brunner, Lawrence - BA, MA, PhD, DPhil
- Corey, Paul - BSc, MA, PhD
- Craiu, Virgil Radu - BS, MS, PhD (*Associate Chair, Graduate Studies*)
- Escobar, Michael - BS, PhD
- Evans, Michael - BSc, MSc, PhD
- Feuerverger, Andrey - BSc, PhD
- Jaimungal, Sebastian - BS, MS, PhD
- Knight, Keith - PhD
- Lin, Xiaodong - BSc, MSc, PhD
- Lou, Wen-Yi Wendy - DPhil
- McDunnough, Philip - BSc, MSc, PhD
- Neal, Radford - BSc, MSc, PhD
- Quastel, Jeremy - BSc, MS, PhD
- Reid, Nancy - BM, MSc, PhD
- Rosenthal, Jeffrey - PhD
- Stafford, James - BS, MS, PhD (*Chair & Graduate Chair*)
- Sun, Lei - BS, PhD
- Virag, Balint - BA, MA, PhD
- Yao, Fang - BSc, MSc, MS, DPhil

**Members Emeriti**
- Andrews, David - BSc, MSc, PhD
- Fraser, Donald AS - BA, MA, PhD
- Guttman, Irwin - BSc, MA, PhD
- Srivastava, Muni - MSc, PhD

**Associate Members**
- Gibbs, Alison - BS, MS, PhD
- Willmot, Gordon - BMATH, MMath, PhD
Theoretical Astrophysics

Faculty Affiliation
Arts and Science

Degree Programs Offered
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 enquire. 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 (NSERC), and the Canadian Institute for Advanced Research (CIFAR).

CITA owns an extensive and powerful network of massively parallel computers and workstations, including a 200 node, 1600 core beowulf computing cluster.

The research activities at CITA span most of the areas of modern theoretical astrophysics, including accretion disks, active galactic nuclei, general relativity, 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 25 post-doctoral 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.

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Canadian Institute for Theoretical Astrophysics (CITA)
Institut Canadien d’Astrophysique Théorique (ICAT)
University of Toronto
Room 1403, McLennan Physical Laboratories
Toronto, Ontario M5S 3H8
Canada

Graduate Faculty
Full Members
Bond, J Richard - BSc, MS, PhD
Kofman, Lev - PhD
Martin, Peter - BSc, MSc, PhD
Murray, Norman - BSc, PhD (Director)
Pen, Ue-Li - BSc, PhD
Thompson, Christopher - BSc, PhD

Graduate Faculty
Theory and Policy Studies in Education

Faculty Affiliation
Ontario Institute for Studies in Education

Degree Programs Offered
Educational Administration – MA, MEd, EdD, PhD
Higher Education – MA, MEd, EdD, PhD
History and Philosophy of Education – MA, MEd, EdD, PhD

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

1. Comparative, International and Development Education
   - Educational Administration, MA, MEd, EdD, PhD
   - Higher Education, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd, EdD, PhD

2. Ethnic and Pluralism Studies
   - Educational Administration, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd, EdD, PhD

3. Sexual Diversity Studies
   - Educational Administration, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd, EdD, PhD

4. Women and Gender Studies
   - Educational Administration, MA, MEd, EdD, PhD
   - Higher Education, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd, EdD, PhD

Overview
The Department of Theory and Policy Studies in Education (TPS) consists of three graduate programs, one representing two discipline-based fields (History and Philosophy of Education) and two representing the application of cognate scholarship to domains of practice (Educational Administration and Higher Education). Each program offers courses of study leading to Master of Arts, Master of Education, Doctor of Education, and Doctor of Philosophy degrees. Applications must be made to one of the three specializations: Educational Administration, Higher Education, History and Philosophy of Education.

For information about application procedures and forms, contact the OISE/UT Registrar’s Office at (416) 978-1654.

For general admission and program requirements, consult the OISE/UT Graduate Studies in Education Bulletin section titled “Minimum Admission, Program and Degree Requirements”. For complete information on TPS degree programs, consult the section of the Bulletin dealing with the Department of Theory and Policy Studies in Education.

Master of Education Options. At OISE/UT there are four options for completing the MEd degree:

Option I: Course work and comprehensive option: 5.0 full-course equivalents (FCE) plus a comprehensive examination/requirement.

Option II: Research project option: 4.0 FCE plus a research project or major research paper. Higher Education also requires a comprehensive examination.

Option III: Thesis option: 3.0 FCE plus a thesis.

Option IV: Course work only option: 5.0 FCE.

Information about available options in each graduate program follow.

Members of the Department also participate in delivering the preservice teacher education program (BEd), particularly the social foundations courses and courses rooted in educational history, philosophy, administration, and policy.

Contact and Address
Web: www.oise.utoronto.ca/depts/tps/
E-mail: ccavaliere@oise.utoronto.ca
Telephone: (416) 978-1166
Fax: (416) 926-4741

Department of Theory and Policy Studies in Education
The Ontario Institute for Studies in Education of the University of Toronto (OISE/UT)
Sixth Floor, 252 Bloor Street West
Toronto, Ontario M5S 1V6
Canada

Degree Programs

Educational Administration

Master of Arts
The MA program in Educational Administration fosters the study of problems in the administration and leadership of educational programs. It will best serve students who have a commitment to scholarship and research as a means of deepening their understanding of administrative action in schools or in other educational and service institutions. While experience in teaching and administration is not an essential prerequisite for admission, such experience provides a desirable background. The MA is available through both full-time and part-time studies.
Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- Four-year University of Toronto bachelor’s degree or its equivalent, in a relevant discipline or professional program, completed with the equivalent of a University of Toronto B+ standing in the final year.

Program Requirements
- 4.0 full-course equivalents (FCE) plus a thesis.
Additional courses may be required of some applicants.

Master of Education
The MEd program in Educational Administration 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. The MEd degree may be pursued either part-time or full-time.

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- An appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university completed with standing equivalent to a University of Toronto mid-B or better in the final year, preferably with a concentration and focus in an area relevant to the type of educational administration the applicant wishes to enter.
- An interest in the study and practice of administration.
- Academic qualifications beyond the first degree.
- Two letters of reference. Whenever possible, one should be written by an educational administrator for whom the applicant has worked; the second by a professional colleague.

Program Requirements
- There are three options available to all students within the MEd program in Educational Administration.
- **Option II** comprises:
  - 1.5 required FCE: TPS 1003H Conducting Research in Educational Administration; TPS 1040H Educational Administration I: Introduction to Educational Administration; Policy, Leadership, and Change; TPS 1041H Educational Administration II: Social and Policy Contexts of Schooling. TPS 1040H and TPS 1041H should be taken first; course TPS 1003H should be taken towards the end of the program.
  - 2.5 other FCE, of which at least 1.0 FCE must be in Educational Administration; TPS 1004H Research Literacy in Educational Administration is strongly recommended and should be taken at the beginning of the program. Students may choose to focus on one of the four program strands: Policy, Leadership, Change, or Social Diversity.

- **Option III** comprises:
  - A Major Research Paper (MRP) to be carried out under the guidance of a faculty member.

- **Option IV** comprises:
  - 1.5 required FCE: TPS 1003H Conducting Research in Educational Administration; TPS 1040H Educational Administration I: Introduction to Educational Administration; Policy, Leadership, and Change; TPS 1041H Educational Administration II: Social and Policy Contexts of Schooling. TPS 1040H and TPS 1041H should be taken first; course TPS 1003H should be taken towards the end of the program.
  - 1.5 other FCE, of which at least one must be in Educational Administration; TPS 1004H Research Literacy in Educational Administration is strongly recommended and should be taken at the beginning of the program.
  - A comprehensive thesis to be developed under the guidance of a faculty member.

Doctor of Education
The EdD program in Educational Administration is intended to develop highly competent leaders for administrative positions in school systems, colleges, universities, and other educational institutions. The program is specifically designed to help working professional educators develop the intellectual and research skills to refine their practice as leaders in school systems and in higher education.

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- Master’s degree with specialization in Educational Administration or an equivalent degree with a B+ av-


Department Programs by Graduate Unit

...erge. Additional course work may be required from those who do not have a background in administrative studies. A qualifying research paper (QRP) will be required.

- The applicant must be in a successful leadership position in education, or must have held a leadership position successfully, or must demonstrate potential for leadership.

- There are two EdD streams: the regular and the cohort-based streams.
  - **Regular EdD Stream**: regular stream students are accepted every year and can register on a full-time or part-time basis.
  - **Cohort-Based Stream**: Cohorts are accepted every three years. Students move through the program as a cohort or unit.

**Program Requirements**

**Regular EdD Stream**

- 4.0 core full-course equivalents (FCE) as follows:
  - TPS 3040H
  - TPS 3041H
  - TPS 3042H and TPS 3044H or equivalent
  - 2.0 additional FCE, 0.5 of which must be at the 3000 level
- Successful completion of a portfolio that emphasizes reflective practice
- A thesis proposal hearing
- A doctoral thesis, one component of which may be a document of the kind used in the field, such as a policy document or policy handbook, white paper, or restructuring plan or another approved undertaking.

**Cohort-Based Stream**

- 4.0 core full-course equivalents (FCE) as follows:
  - TPS 3040H
  - TPS 3041H
  - TPS 3025H
  - TPS 3042H
  - TPS 3047H
  - TPS 3044H Internship/Practicum in Educational Administration
  - 1.0 other FCE of which 0.5 FCE which must be at the 3000 level
- Successful completion of a portfolio that emphasizes reflective practice
- A thesis proposal hearing
- A doctoral thesis

**Doctor of Philosophy**

The PhD program in Educational Administration 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 administrative action in schools or in other educational and service institutions. While experience in teaching and administration is not an essential prerequisite for admission, such experience provides a desirable background.

The PhD program may be taken on either a full-time or flexible-time basis. To be admitted on a flexible-time basis, applicants 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.

**Minimum Admission Requirements**

- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- University of Toronto MA degree or its equivalent, with standing equivalent to a University of Toronto A-. Students who have completed an appropriate master's degree that did not include a thesis or research project are required to complete a Qualifying Research Paper to a standard satisfactory to the PhD Admissions Committee. Before undertaking a qualifying research project, students should first consult the Program Coordinator.

**Program Requirements**

- Minimum 3.0 new full-course equivalents (FCE), of which 2.0 FCE normally must be TPS 3040H, TPS 3042H, TPS 3043H, and one elective advanced level (3000) course in Educational Administration.
- 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 specialization.
- PhD students are required to pass a comprehensive examination and a thesis proposal hearing.
- A thesis is required.

**Course List**

Not all courses are offered every year. Please consult OISE/UT's Graduate Studies Course Schedule which lists the courses the Department will offer this year as well as those offered by other departments that may be taken for credit in your program.

Some sections of existing courses are offered off campus and by computer conferencing in order to make them available to students in localities far from Toronto.

**Educational Administration**

- TPS 1003H Conducting Research in Educational Administration
- TPS 1004H Research Literacy in Educational Administration
- TPS 1005H The Computer in Educational Administration
- TPS 1012H Organizational Culture and Decision Making
- TPS 1016H School Program Development and Implementation
- TPS 1018H Political Skill in the Education Arena
- TPS 1019H Diversity and the Ethics of Educational Administration
- TPS 1020H Teachers and Educational Change

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Degree Programs by Graduate Unit

Theory and Policy Studies in Education

TPS 1024H Critical Conversations: Philosophy, Educational Administration, and Educational Policy Studies
TPS 1025H School Effectiveness and School Improvement
TPS 1026H Evaluation of Professional Personnel in Education
TPS 1027H The Search for Educational Quality and Excellence in a Global Economy
TPS 1028H Policy Delivery and Schools
TPS 1029H Special Applications of the Administrative Process
TPS 1030H The Legal Context of Education
TPS 1040H Educational Administration I: Introduction to Educational Administration: Policy, Leadership and Change
TPS 1041H Educational Administration II: Social and Policy Context of Schooling
TPS 1042H Educational Leadership and Cultural Diversity
TPS 1045H Language Policy Across the Curriculum
TPS 1047H Managing Changes in Classroom Practice
TPS 1050H Themes and Issues in Policy, Leadership, Change, and Diversity
TPS 1052H Individual Reading and Research in Educational Administration: Master’s Level
TPS 2006H Educational Finance and Economics
TPS 3017H Problems in the Finance and Economics of Education
TPS 3018H Governing Education: A Seminar on Politics
TPS 3020H Educational Change in the Post-Modern Age
TPS 3022H The Investigation of School Culture: An Examination of the Daily Life of Schools
TPS 3024H Field Studies in Educational Leadership
TPS 3025H Personal and Professional Values of Educational Leadership
TPS 3028H Project Development Studies
TPS 3029H Special Topics in Educational Administration
TPS 3030H Advanced Legal Issues in Education
TPS 3037H Strategic Planning in Educational Organizations
TPS 3040H Administrative Theory and Educational Problems I: People and Power in Organizations
TPS 3041H Administrative Theory and Educational Problems II: Doctoral Seminar on Policy Issues in Education
TPS 3042H Field Research in Educational Administration
TPS 3043H Survey Research in Educational Administration
TPS 3044H Internship/Practicum in Educational Administration
TPS 3045H Educational Policy and Program Evaluation
TPS 3046H Gender Issues in Educational Leadership
TPS 3047H Research Seminar on Leadership and Educational Change
TPS 3052H Individual Reading and Research in Educational Administration: Doctoral Level
TPS 3055H Democratic Values, Student Engagement and Democratic Leadership
JCT 2000H Proseminar in Educational Evaluation, Measurement and Policy Analysis
JCT 2001H Using Classroom Assessment to Enhance Student Learning

Higher Education

Master of Arts

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- Four-year University of Toronto bachelor's degree with a minimum mid-B standing in the final year, or its equivalent.

Program Requirements
- 4.0 full-course equivalents (FCE). The number of FCE may be reduced to 3.0 for students with prior undergraduate or graduate degrees that are relevant to the study of Higher Education. Additional courses may be required of some applicants.
- All students are required to complete TPS 1803Y Recurring Issues in Postsecondary Education.
- General written comprehensive examination
- Thesis.

Master of Education

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.

Program Requirements
- Students in Higher Education pursue the MEd Option I degree program - 5.0 full-course equivalents (FCE) plus a comprehensive examination.
- All students are required to complete TPS 1803Y Recurring Issues in Postsecondary Education.
- Health Professional Education. Students in the health professional education specialization normally register in the MEd Option II program – 4.0 FCE plus a major research project/paper. This option, if
pursued on a full-time basis, cannot be completed in less than 12 months. A comprehensive examination is required. Additional information on the health professional education specialization may be obtained from Professor Linda Muzzin.

Doctor of Education

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- 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
- Minimum of 4.0 full-course equivalents (FCE) including:
  o TPS 1803Y Recurring Issues in Postsecondary Education (1.0 FCE)
  o at least 1.0 other FCE in Higher Education
  o 0.5 FCE in research methodology approved by the faculty advisor
  o 0.5 FCE selected either in Higher Education or in another graduate program at OISE/UT, or, with the approval of the faculty advisor, in another graduate department at the University of Toronto
  o Supervised applied research practicum (equivalent to 0.5 FCE)
  o Collaborative pro-seminar (0.5 FCE)
- Written General Comprehensive Examination (if not completed previously);
- Doctoral Specialization Examination;
- Thesis reporting the results of original research on an applied topic in postsecondary education.

Doctor of Philosophy

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- 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
- Minimum 3.0 full-course equivalents (FCE) including:
  o TPS 1803Y Recurring Issues in Postsecondary Education (1.0 FCE)
  o at least 1.0 other FCE in Higher Education
  o 0.5 FCE in research methodology approved by the faculty advisor
  o 0.5 FCE selected either in Higher Education or in another graduate program at OISE/UT, or, with the approval of the faculty advisor, in another graduate department at the University of Toronto
- Written General Comprehensive Examination (if not completed previously).
- Doctoral Specialization Examination;
- Thesis reporting the results of original research in postsecondary education.

Course List
Not all courses are offered every year. Please consult OISE/UT's Graduate Studies Course Schedule which lists the courses the Department will offer this year as well as those offered by other departments that may be taken for credit in your program.

Some sections of existing courses are offered off campus and by computer conferencing in order to make them available to students in localities far from Toronto.

Higher Education
TPS 1801H The History of Higher Education in Canada: An Overview
TPS 1802Y Theory in Higher Education
TPS 1803Y Recurring Issues in Postsecondary Education
TPS 1804H Issues in Medical/Health Professional Education
TPS 1805H The Community College
TPS 1806H Systems of Higher Education
TPS 1807H Strategic and Long-Range Planning for Postsecondary Systems
TPS 1808H Research in Health Professional Education
TPS 1809H Administration of Colleges and Universities
TPS 1810H Evaluation of Knowledge, Clinical Competence, and Professional Behaviour in the Health Professions
TPS 1811H Institutional Research and Planning
TPS 1812H Education and the Professions
TPS 1813H Issues in Cognitive and Educational Psychology: Implications for Health Professional Education
TPS 1814H Curriculum in Institutions of Higher Education
TPS 1815H Teaching in Institutions of Higher Education
TPS 1817H Nurturing Professional Education
TPS 1818H Educational Development: Examination of Strategies for Improving Teaching and Learning in Postsecondary Institutions
TPS 1819H Governance in Higher Education
TPS 1820H Special Topics in Higher Education: Master's Level
TPS 1821H Institutional Differentiation in Postsecondary Education
TPS 1822H The Idea of the University and the College
TPS 1824H The Planning of Facilities in Higher Education
TPS 1825H Comparative Education: Theory and Methodology
TPS 1826H Comparative Higher Education
TPS 1827H The Politics of Higher Education
TPS 1828H Evaluation in Higher Education
TPS 1832H East Asian Higher Education
TPS 1833H Academic Capitalism: Higher Education with a Corporate Agenda
TPS 1834H Qualitative Research in Higher Education
TPS 1837H Environmental Health, Transformative Higher Education
TPS 1838H Continuing Education
TPS 1839H Continuing Education
TPS 1842H Higher Education and the Labour Market
TPS 1843H Higher Education and the Law
TPS 1844H The Student Experience in Postsecondary Education
TPS 1845H Applications in the Student Experience
TPS 1852H Individual Reading and Research in Higher Education: Master's Level
TPS 2006H Educational Finance and Economics
TPS 3806H Case Studies in Comparative Higher Education
TPS 3810H International Academic Relations
TPS 3820H Special Topics in Higher Education: Doctoral Level
TPS 3852H Individual Reading and Research in Higher Education: Doctoral Level

History and Philosophy of Education
Each degree in the History and Philosophy of Education program is offered in two fields:
1. History of Education
2. Philosophy of Education

Master of Arts

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.
- Four-year University of Toronto bachelor’s degree, or its equivalent. A history major is required for applicants to the History of Education field; a philosophy major is required for applicants to the Philosophy of Education field.

Program Requirements
Field:
1. History of Education
   - A total of 3.0 FCE, including:
     - TPS 1419H Historiography and the History of Education (0.5 FCE) and TPS 1440H An Introduction to Philosophy of Education (0.5 FCE).
     - Normally, 1.5 of the remaining 2.0 FCE must be selected from the History of Education course menu. (See the OISE/UT Graduate Studies in Education Bulletin for details.) In cases where a student has already taken a course deemed equivalent to TPS 1440H, another philosophy course may be substituted. In consultation with the faculty advisor, this course should be chosen to complement the student's primary focus in history.

Field:
1. Philosophy of Education
   - A total of 3.0 FCE, including:
     - Completion of TPS 1440H An Introduction to Philosophy of Education (0.5 FCE), unless a course deemed equivalent has already been taken.
     - One course in history, normally TPS 1419H Historiography and the History of Education (0.5 FCE). In cases where a student has already taken a course deemed equivalent to TPS 1419H, another history course may be substituted. In consultation with the faculty advisor, this course should be chosen to complement the student's primary focus in philosophy.
     - Normally, 1.5 of the remaining 2.0 FCE must be selected from the Philosophy of Education course menu. (See the OISE/UT Graduate Studies in Education Bulletin for details.) Upon approval, courses from other departments, including the Graduate Department of Philosophy, may be substituted for Philosophy of Education courses.
     - Applicants with undergraduate majors in related social science and humanities disciplines are normally required to take some additional courses.

Master of Education

Minimum Admission Requirements
- The department welcomes applicants with diverse but relevant backgrounds.
- Students are admitted under the general regulations of the School of Graduate Studies.

Program Requirements
Field:
1. History of Education
   - The MEd degree in the History of Education field may be pursued under either Option II (4.0 full-course equivalents (FCE) plus a major research project/paper) or Option IV (5.0 FCE).
     - Students enrolled in Option II are expected to complete at least 2.0 FCE from the History of
Program Requirements

**Field:**

1. History of Education

- Students who have completed a master's degree (MEd or MA) in the History and Philosophy of Education Program - History of Education field must complete 4.0 full-course equivalents (FCE), a year of full-time study on campus, and a thesis. Preferably, the year of full-time study should occur late in the degree program and should be devoted primarily to thesis research and writing.

- Students who have not completed a master's (MEd or MA) degree in the History and Philosophy of Education Program - History of Education field must complete TPS 1440H An Introduction to the Philosophy of Education as part of their 4.0 FCE. In cases where a student has already taken a course deemed equivalent to TPS 1440H, another philosophy course may be substituted. In consultation with the faculty advisor, this course should be chosen to complement the student's primary focus in history.

- The core program includes two mandatory EdD seminars (TPS 3490H EdD Seminar in the History of Education I and TPS 3491H EdD Seminar in the History of Education II), normally taken during the year of full-time study. Course TPS 1419H Historiography and the History of Education is a requirement for students in this program. The remaining courses are selected by the student in consultation with the faculty advisor and may be taken before or after the year of required full-time study. Students are strongly encouraged, though not required, to take at least 1.0 FCE before the year of full-time study.

- All EdD students are required to take a comprehensive examination.

**Field:**

1. Philosophy of Education

- Applicants with specializations in their master's degree programs other than Philosophy of Education are required to take additional courses either as prerequisites to admission or as part of their program.

- Applicants without a master's thesis or equivalent must submit a Qualifying Research Paper, which must be approved by two faculty members prior to registration in the program.

- Students who have completed a master's degree (MEd or MA) in the History and Philosophy of Education Program - Philosophy of Education field must complete 4.0 full-course equivalents (FCE) (some or all of which may be taken part-time), a year of required full-time study on campus, and a thesis. Preferably, the year of full-time study should occur late in the degree program and should be devoted primarily to thesis research and writing.

- All EdD students are required to take a comprehensive examination.
• Core program includes two mandatory EdD seminars (TPS 3480H EdD Seminar in the Philosophy of Education I and TPS 3481H EdD Seminar in the Philosophy of Education II), normally taken during the year of required full-time study, and course TPS 1440H An Introduction to Philosophy of Education, unless it, or an equivalent, has been taken previously.

• Students who have not completed a master's (MED or MA) degree in the History and Philosophy of Education Program - Philosophy of Education field must complete TPS 1419H Historiography and the History of Education as part of their required 4.0 FCE. In cases where a student has already taken a course deemed equivalent to TPS 1419H, another history course may be substituted. In consultation with the faculty advisor, this course should be chosen to complement the student's primary focus in philosophy.

• A minimum of 2.5 FCE should normally be taken from the Philosophy of Education course menu, selected in consultation with the faculty advisor. (See the OISE/UT Graduate Studies in Education Bulletin for a list of Philosophy of Education courses.) Courses from other departments, including the Graduate Department of Philosophy, may, upon approval, be substituted for Philosophy of Education courses. Students are strongly encouraged, though not required, to take at least 1.0 FCE before the year of required full-time study.

Doctor of Philosophy

Minimum Admission Requirements
• The department welcomes applicants with diverse but relevant backgrounds.
• Students are admitted under the general regulations of the School of Graduate Studies.
• Applicants to the PhD program must have a University of Toronto MA degree from the History and Philosophy of Education Program or its equivalent from another university. Work at the master's level must include a thesis or equivalent major research paper and must be in the same subject area as the intended field of PhD study.

Program Requirements
Field: History of Education
• 3.0 full-course equivalents (FCE) plus a thesis.
• If the master's degree did not include a thesis (or equivalent), a Qualifying Research Paper must be submitted and approved by two faculty members before registration in the degree program.
• Applicants who do not hold a University of Toronto MA degree in the History and Philosophy of Education Program - History of Education field or its equivalent will be required to establish equivalency with the OISE/UT master's program. Usually this entails completion of TPS 1419H Historiography and the History of Education and TPS 1440H An Introduction to the Philosophy of Education within the minimum 3.0 FCE requirement for the PhD In cases where a student has already taken a course deemed equivalent to TPS 1440H, another philosophy course may be substituted. In consultation with the faculty advisor, this course should be chosen to complement the student's primary focus in history.
• All PhD students are required to write a comprehensive examination.

Field:
1. Philosophy of Education
• 3.0 full-course equivalents (FCE) plus a thesis.
• If the master's degree did not include a thesis (or equivalent), a Qualifying Research Paper must be submitted and approved by two faculty members before registration in the degree program.
• Applicants who do not hold a University of Toronto master's degree in the History and Philosophy of Education Program - Philosophy of Education field or its equivalent will be required to establish equivalency with the OISE/UT master's program. Usually this entails completion of TPS 1440H An Introduction to Philosophy of Education (unless a course deemed equivalent has already been taken previously) and TPS 1419H Historiography and the History of Education within the minimum 3.0 FCE requirement for the PhD In cases where a student has already taken a course deemed equivalent to TPS 1419H, another history course may be substituted. In consultation with the faculty advisor, this course should be chosen to complement the students' primary focus in philosophy.
• All students must complete at least 2.0 FCE from the Philosophy of Education course menu, including TPS 1440H. (See the OISE/UT Graduate Studies in Education Bulletin for a list of Philosophy of Education courses.) Courses should be selected in consultation with the faculty advisor. Courses from other departments, including the Graduate Department of Philosophy, may, upon approval, be substituted for Philosophy of Education courses.
• All PhD students are required to write a comprehensive examination.

Course List
Not all courses are offered every year. Please consult OISE/UT's Graduate Studies Course Schedule which lists the courses the Department will offer this year as well as those offered by other departments that may be taken for credit in your program.

Some sections of existing courses are offered off campus and by computer conferencing in order to make them available to students in localities far from Toronto.
<table>
<thead>
<tr>
<th>History of Education</th>
<th>Philosophy of Education</th>
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<tbody>
<tr>
<td>TPS 1400H The Origins of Modern Schooling I: Problems in Education Before the Industrial Revolution</td>
<td>TPS 1432H Knowledge, Mind, and Human Beings</td>
</tr>
<tr>
<td>TPS 1401H The Origins of Modern Schooling II: Problems in Nineteenth- and Twentieth-Century Educational History, Focus on Canada and the U.S.A.</td>
<td>TPS 1433H Freedom and Authority in Education</td>
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<tr>
<td>TPS 1402H History of Modern European Education</td>
<td>TPS 1434H Human Rights, Politics, and Education</td>
</tr>
<tr>
<td>TPS 1403H History of Education in Canada</td>
<td>TPS 1435H Democracy and Education</td>
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<td>TPS 1404H History of Rural Education in Canada</td>
<td>TPS 1436H Modernity and Postmodernity in Social Thought and Education</td>
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<tr>
<td>TPS 1405H History of Education and Society: Selected Topics</td>
<td>TPS 1438H Democratic Approaches to Pedagogy</td>
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<tr>
<td>TPS 1406H Sexuality and the History of Education</td>
<td>TPS 1439H Gender, Ethics, and Education: Philosophical Issues</td>
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<td>TPS 1410H Schooling in the Movies: Education as Reflected in Hollywood Films</td>
<td>TPS 1440H An Introduction to Philosophy of Education</td>
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<td>TPS 1415H The History of the Teaching Profession</td>
<td>TPS 1441H Philosophical Dimensions of Moral Education</td>
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<td>TPS 1416H Ontario Education</td>
<td>TPS 1442H Cultural and Racial Difference in Education: Philosophical Perspectives</td>
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<td>TPS 1420H European Popular Culture and the Social History of Education: I</td>
<td>TPS 1444H Human Rights and Education in an International Context</td>
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<tr>
<td>TPS 1422H Education and Family Life in the Modern World I</td>
<td>TPS 1446H The Teacher as Philosopher</td>
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<tr>
<td>TPS 1423H The History of the Family in Canada</td>
<td>TPS 1447H Technology in Education: Philosophical Issues</td>
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<tr>
<td>TPS 1426H The History of Gender and Education in Canada</td>
<td>TPS 1450H Philosophy of Science and Science Education</td>
</tr>
<tr>
<td>TPS 1427H History and Commemoration: Canada and Beyond, 1800s-1900s</td>
<td>TPS 1453H Individual Reading and Research in the Philosophy of Education: Master's Level</td>
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<tr>
<td>TPS 1428H Immigration and the History of Canadian Education</td>
<td>TPS 1459H Creativity and Education</td>
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<td>TPS 1429H Ethnicity and the History of Canadian Education</td>
<td>TPS 1462H Women, Literature, and Education</td>
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<tr>
<td>TPS 1430H Gendered Colonialisms, Imperialisms and Nationalisms in History</td>
<td>TPS 1465H Special Topics in Philosophy of Education</td>
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<tr>
<td>TPS 1448H Popular Culture and the Social History of Education: II</td>
<td>TPS 1471H Critical Issues in Education: Philosophical Perspectives</td>
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<td>TPS 1452H Individual Reading and Research in the History of Education: Master's Level</td>
<td>TPS 1482H The Nature and Development of Religious Knowledge in Education</td>
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<tr>
<td>TPS 1454H The Battle Over History Education in Canada</td>
<td>TPS 1484H Philosophy of Literature and Literature Education</td>
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<tr>
<td>TPS 1460H History and Educational Research</td>
<td>TPS 1485H Literature and Values in Education</td>
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<tr>
<td>TPS 1461H Special Topics in History of Education</td>
<td>TPS 1487H Critical Discourses of Musical Experience and Education</td>
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<tr>
<td>TPS 3423H Education and Family Life in the Modern World I</td>
<td>TPS 1488H Feminist Theory, Musical Experience, and Music Education</td>
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<tr>
<td>TPS 3428H Minority Concerns and Education in Canadian History: Selected Topics</td>
<td>TPS 3417H Research Seminar in Feminist Criticism, Aesthetics, and Pedagogy</td>
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<tr>
<td>TPS 3452H Individual Reading and Research in the History of Education: Doctoral Level</td>
<td>TPS 3436H Aesthetics and Education</td>
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<tr>
<td>TPS 3461H Special Topics in History of Education</td>
<td>TPS 3441H Research Seminar in Moral Education: Part I</td>
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<tr>
<td>TPS 3490H EdD Seminar in the History of Education I</td>
<td>TPS 3443H Research Seminar in Moral Education: Part II</td>
</tr>
<tr>
<td>TPS 3491H EdD Seminar in the History of Education II</td>
<td>TPS 3447H Theories of Modernity and Education I</td>
</tr>
<tr>
<td>TPS 3494H Doctoral Practicum in the History of Education I</td>
<td>TPS 3453H Individual Reading and Research in the Philosophy of Education: Doctoral Level</td>
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<tr>
<td>TPS 3495H Doctoral Practicum in the History of Education II</td>
<td>TPS 3465H Special Topics in Philosophy of Education</td>
</tr>
<tr>
<td>TPS 3480H EdD Seminar in the Philosophy of Education I</td>
<td>TPS 3481H EdD Seminar in the Philosophy of Education II</td>
</tr>
<tr>
<td>TPS 3484H Doctoral Practicum in the Philosophy of Education I</td>
<td>TPS 3485H Doctoral Practicum in the Philosophy of Education II</td>
</tr>
</tbody>
</table>
Degree Programs by Graduate Unit

Theory and Policy Studies in Education

Graduate Faculty

Full Members
Acker, Sandra - BA, MA, PhD
Anderson, Stephen - BA, MA, PhD
Bascia, Nina - PhD
Boler, Megan - BA, PhD (Program Coordinator, Philosophy)
Boyd, Dwight - BA, MEd, EdD
Chambers, Anthony - BS, MS, EdD
Dietsche, Peter - BA, MA, PhD, PhD
Earl, Lorna - PhD
Ford, Maureen - BA, MA, PhD
Gaskell, Jane - BA, EdD
Hache, Denis - BA, BEd, MEd, MBA, PhD
Hayhoe, Ruth - BA, MA, PhD
Hildyard, Angela - BSc, MA, PhD
Hodges, Brian - BA, MEd, MD
Iacovetta, Franca - AB, AM, PhD
Jones, Glen - PhD
Joshee, Reva - BLitt, MA, PhD (Chair & Graduate Chair)
Lang, Daniel - BA, MAT, PhD
Leithwood, Kenneth - BA, BPHE, MPE, PhD
Levin, Benjamin - BA, MEd, PhD
Levine, David - BA, MA, PhD
Lingard, Lorelei - PhD
Magnusson, Jamie-Lynn - BA, MA, PhD
Mascall, Blair - BA, MSc, PhD
Morgan, Cecilia Louise - BA, BA, MA, PhD
Mundy, Karen - AB, MA, PhD
Muzzin, Linda - BA, BA, MPSY, PhD
Ng, Roxana - BA, MA, PhD
Olsen, Christopher - BSc, MA, PhD
Pedro, Susan - BA, MS, PhD
Pascal, Charles - BA, AM, PhD
Portelli, John - MEd, PhD
Radforth, Ian - BA, MA, PhD
Regehr, Glenn - BA, PhD
Ryan, James - BEd, MEd, PhD
Sandwell, Ruth - BA, MA, PhD (Program Coordinator, History)
Sidani, Souraya - TD, BS, MS, PhD
Smyth, Elizabeth - BA, BEd, MA, EdD
Stiegelbauer, Suzanne - BS, MA, MA, PhD
Troper, Harold - BA, MA, PhD
Wrobel, Piotr Jan - MA, PhD
Zuker, Marvin - BA, LLB, MEd

Members Emeriti
Bogdan, Deanne - BA, MA, PhD
Davis, John - BA, BEd, MEd, PhD
Lawton, Stephen - BA, MA, MA, PhD
Misgeld, Dieter - BA, PhD
Pierson, Ruth - BA, MA, PhD
Prentice, Allison - BA, MA, PhD
Skolnik, Michael - BPhil, BA, MA

Associate Members
Albert, Mathieu - PhD
Balan, Jorge - BA, AB, PhD
Batty, Helen - MEd, MD
Chen, Lian - BA, MBA, MSc, PhD
Desbiens, Brian - AB, MA, PhD
Di Paolantonio, Mario - AM, PhD, PhD
D’Souza, Mario Osbert - BA, MEd, MDiv, PhD
Dubrowski, Adam - BSc, MSc, PhD
Fiessl, Joseph - BA, MA, PhD
Gavigan, Shelley Ann Marie - AB, LLB, MA, LLM, SJD
Goldberg, Michelle - BA, MA, PhD
Goldin Rosenberg, Dorothy - DIPP, MES, PhD
Hilliard, Robert - MD, MD
Janzen, Katharine - BS, BN, MEd, EdD
Kane, Gabrielle - MEd, MBChB
Lang, James - DipED, MEd, PhD
LeBlanc, Vicki - PhD
Lopez, Ann - BA, BE, MEd, PhD
MacDonald, Frederick - BA, BEd, MA, PhD
Macdonald, Geraldine - BSN, MEd, EdD
McIlroy, Jodi - BHSc/P(T), MA, PhD
Mendolowitz, Sandra - PhD
Nasmith, Louise - AB, AB, MDCM
Norris, Trevor - BA, BEd, MA, PhD
Nyhoff-Young, Joyce - PhD
Poldre, Peter - MD
Raphael, Dennis - PhD
Reeves, Scott - BSc, MSc
Richmon, Malcolm - BA, BEd, MA, PhD
Ruffolo, David - BA, BE, MA, PhD
Seller, Wayne - BA, MEd
Tully, James - PhD
Wright, Cynthia - BA, MA, PhD
Women and Gender Studies

Faculty Affiliation

Arts and Science

Degree Programs Offered

Women and Gender Studies – MA

Overview

The Women and Gender Studies Institute (WGSI) offers a program leading to the Master of Arts degree in Women and Gender Studies. The Master's Program in Women and Gender Studies (MWGS) focuses on transnationality, gender, sex and feminism. This perspective explores the temporal and geographic processes through which women's and men's lives, sexed relations, gendered subjectivities and sexualities are situated. Our 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.

Collaborative Programs

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

1. Addiction Studies
   • Women and Gender Studies, MA
2. Aging, Palliative and Supportive Care Across the Life Course
   • Women and Gender Studies, MA
3. Asia-Pacific Studies
   • Women and Gender Studies, MA
4. Bioethics
   • Women and Gender Studies, MA
5. Environment and Health
   • Women and Gender Studies, MA
6. Environmental Studies
   • Women and Gender Studies, MA
7. International Relations
   • Women and Gender Studies, MA
8. Jewish Studies
   • Women and Gender Studies, MA
9. Sexual Diversity Studies
   • Women and Gender Studies, MA
10. South Asian Studies
    • Women and Gender Studies, MA
11. Women's Health
    • Women and Gender Studies, MA

Contact and Address

Web: www.utoronto.ca/wgsi
E-mail: grad.womenstudies@utoronto.ca
Telephone: 416-978-3668
Fax: 416-946-5561

Women and Gender Studies Institute
University of Toronto
Room 2036, Wilson Hall, New College
40 Willcocks Street
Toronto, Ontario M5S 1C6
Canada

Degree Programs

Women and Gender Studies

Master of Arts

Minimum Admission Requirements

• Four-year University of Toronto bachelor's degree, or its equivalent, in women's studies and gender studies or a related area at an approved university. Applicants must have obtained an average equivalent to a University of Toronto B+ 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, transcripts from all post-secondary institutions.

Program Requirements

• The student's program of study must be approved by the institute. Total of 4.0 full-course equivalents (FCE) as follows:
  o 1.5 core full-course equivalents (FCE) in Women and Gender Studies (WGS 1000H, WGS 1001H, and WGS 1002H)
  o 0.5 elective FCE in Women and Gender Studies; either a special topics seminar (WGS1003H or WGS1004H), an independent research/reading course (WGS1007H), or a practicum extending over both the fall and winter sessions (WGS 1006H).
  o 1.0 FCE Master's Research Paper (WGS 1005Y)
  o 1.0 FCE (1 year-long or two half-year courses) offered by other departments and chosen in consultation with your faculty advisor

• The MA degree program is a full-time, twelve-month program and is not offered on a part-time basis.
Course List
WGS 1000H  Theories, Histories, Feminisms
WGS 1001H  Feminism, Transnationalism and Postcolonialism
WGS 1002H  Feminist Methodologies and Epistemologies
WGS 1003H  Special Topics in Feminist Studies
WGS 1004H  Special Topics in Feminist Theory
WGS 1005Y  MA Research Paper
WGS 1006H  Practicum
WGS 1007H  Directed Research/Reading

Graduate Faculty

Full Members
Alexander, Mary (Jacqui) - BSW, MA, PhD
Armatage, Kay - BA, MA, PhD
Georgis, Dina - PhD
McElhinny, Bonnie - PhD (Director)
Morgan, Kathryn - BA, MA, MEd, PhD
Murphy, Michelle - BA, PhD (Coordinator of Graduate Studies)
Nyquist, Mary - BA, MA, PhD
Rittich, Kerry - BAMUSIC, LLB, SJD
Tambe, Ashwini - BA, MA, PhD
Taylor, Judith - BA, PhD
Trotz, Alissa - AB, MPH, PhD

Associate Members
Gorman, Rachel - PhD
Larkin, June - PhD

* Courses which may continue over a program. The course is graded when completed.
Collaborative Programs

The School of Graduate Studies currently offers approximately 40 graduate collaborative programs. Collaborative programs emerge from cooperation between two or more graduate units (department, centres, or institutes). The collective experience of the participating graduate units provides the student with a broader base from which to explore a novel interdisciplinary area or some special development in a particular discipline.

The student must be admitted to, and enrol in, one of the collaborating graduate units and must fulfil all the requirements for the degree in the home unit and any additional requirements of the collaborative program. Each collaborative program is designed to allow a focus in the area of specialty. On successful completion of the program, the student receives a transcript notation.
Aboriginal Health

Lead Faculty
Medicine

Participating Degree Programs
Anthropology – MA, MSc, PhD
Counselling Psychology – MA, MEd, EdD, PhD
Geography – MA, PhD
Medical Science – MSc, PhD
Nursing Science – MN, PhD
Nutritional Sciences – MHSc, MSc, PhD
Public Health Sciences – MHSc, PhD
Sociology in Education – MA, MEd, EdD, PhD

Supporting Units
Aboriginal Studies Program (undergraduate). Faculty of Arts & Science

Overview
The Collaborative Program in Aboriginal Health involves the graduate programs listed above. The program is offered in collaboration with the Faculty of Arts and Sciences’ Aboriginal Studies Program. The main objective of the program is to provide graduate training in Aboriginal health research and practice while enhancing mutually beneficial relationships with Aboriginal communities and organizations.

Contact and Address
E-mail: kue.young@utoronto.ca
Telephone: (416) 978-0298
Fax: (416) 946-8055
Aboriginal Health Collaborative Program
c/o Dalla Lana School of Public Health
University of Toronto
Room 547, 155 College Street
Toronto, Ontario M5T 3M7
Canada

Master's Level

Admission Requirements
- Students who wish to enrol in a collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments.
- Applicants must submit to the Program Committee of the Collaborative Program in Aboriginal Health:
  - A personal statement, in the form of a letter no longer than three pages to describe relevant personal and/or professional experiences, a career plan, and motivation in seeking advanced training in Aboriginal health. The nature of any relationship with an Aboriginal community/organization that already exists or to be developed should also be described.
  - Photocopies of application materials submitted to their home unit including curriculum vitae, transcripts, and letters of reference.

Program Requirements
- All master's students in the program will take CHL 5421H Aboriginal Health (0.5 FCE).
- Students must complete an individual reading course (0.5 FCE) focusing on an Aboriginal Health topic, to be approved and supervised by a member of the Aboriginal Health Program Committee.
- In home graduate units that do not have a thesis requirement, students must undertake a practicum or equivalent in an Aboriginal health topic, supervised by a core faculty member of the Collaborative Program.
- Students must participate in the Research Seminar Series, held monthly, as well as participate in at least one National/Regional Workshop.
- Students must complete the requirements of the Collaborative Program in addition to those requirements for the degree program in their home graduate unit.

Doctoral Level

Admission Requirements
- Students who wish to enrol in a collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments.
- Applicants must submit to the Program Committee of the Collaborative Program in Aboriginal Health:
  - A personal statement, in the form of a letter no longer than three pages to describe relevant personal and/or professional experiences, a career plan, and motivation in seeking advanced training in Aboriginal health. The nature of any relationship with an Aboriginal community/organization that already exists or to be developed should also be described.
  - Photocopies of application materials submitted to their home unit including curriculum vitae, transcripts, and letters of reference.

Program Requirements
- The requirements are the same as for the master’s program listed above.

Core Course
CHL 5421H Aboriginal Health
Program Committee
Antone, Eileen - BA, BEd, MEd, EdD - Aboriginal Studies Program
Stewart, Suzanne - PhD - Adult Education & Counselling Psychology
Sieciechowicz, Krystyna - BA, MA, PhD - Anthropology
McGregor, Deborah - BSc, MES, PhD - Geography
Marrett, Loraine - BMath, PhD - Medical Science
Mutaner, Carles - MHS, PhD, MD - Nursing Science
Hanley, Anthony - MSc, PhD - Nutritional Sciences
Young, Kue - BSc, MD, MSc, PhD, FRCPC, LMCC - Public Health Sciences (Director)
Cannon, Martin - PhD - Sociology & Equity Studies in Education
Addiction Studies

Lead Faculty
Medicine

Participating Degree Programs
Adult Education and Community Development – MA, MEd, EdD, PhD
Anthropology – MA, MSc, PhD
Biomedical Engineering – MSc, PhD
Criminology – MA, PhD
Exercise Sciences – MSc, PhD
Information – MI, PhD
Medical Science – MSc, PhD
Nursing Science – MN, PhD
Pharmacology – MSc, PhD
Pharmaceutical Sciences – MSc, PhD
Psychology – MA, PhD
Public Health Sciences – MSc, PhD
Social Work – MSW, PhD
Sociology – MA, PhD
Women and Gender Studies – MA

Overview
The graduate programs listed above, in collaboration with the Centre for Addiction and Mental Health, the Canadian Centre on Substance Abuse, and the Ontario Tobacco Research Unit, participate in the Collaborative Program in Addiction Studies at the University of Toronto. The purpose of the program is to develop and integrate graduate training in the multidisciplinary field of addictions, an area that includes the use and abuse of alcohol, tobacco, and psychoactive substances, as well as gambling and other addictive behaviors. Master's programs requiring a thesis, practicum, or research paper, and doctoral programs are included. Upon fulfillment of the program requirements, transcripts issued by the School of Graduate Studies will denote completion of the Collaborative Program in Addiction Studies.

Master’s Level

Admission Requirements
- Applicants must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments. They must contact the collaborating professor within their department directly.

Program Requirements
- Students must meet all requirements of their home department in terms of course work and thesis work, or equivalent.
- Master's students in the collaborative program are required to take PAS 3700H Multidisciplinary Aspects of Addictions, plus 0.5 full-course equivalent (FCE) selected from the list of approved elective courses presented below or an approved directed reading course.
- The student's thesis must deal with a subject in the field of addictions. The thesis is supervised and evaluated in the same manner as others in the home department, but normally involves, as appropriate, supervisory and examining professors from other disciplines represented in the collaborative program. In collaborating departments that do not require a thesis, a practicum or major research paper will be accepted instead of a thesis, as long as the topic or focus is directly related to addictions. In collaborating departments that do not have a thesis or equivalent requirement, students must take a third 0.5 FCE from the list of approved electives.

Doctoral Level

Admission Requirements
- Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments. They must contact the collaborating professor within their department directly.

Program Requirements
- Doctoral students in the collaborative program are required to take PAS 3700H Multidisciplinary Aspects of Addictions, if they have not already done so, plus an additional 0.5 FCE (not taken previously) from the approved listing of elective courses presented below or an approved directed reading course.
- Students must meet all requirements of their home department in terms of course work and thesis work, or equivalent.
- The student's thesis must deal with a subject in the field of addictions. The thesis is supervised and evaluated in the same manner as others in the home department, but normally involves, as appropriate,
supervisory and examining professors from other disciplines represented in the collaborative program. In collaborating departments that do not require a thesis, a practicum or major research paper will be accepted instead of a thesis, as long as the topic or focus is directly related to addictions. In collaborating departments that do not have a thesis or equivalent requirement, students must take a third 0.5 FCE from the list of approved electives.

Course List

Core Course

PAS 3700H Multidisciplinary Aspects of Addiction

Elective Courses

PAS 3701H Advanced Research Issues in Addictions
CHL 5119H Social and Political Perspectives on Drugs and Addictions
CHL 5417H Tobacco and Health: From Cells to Society
JPM 1005Y Behavioural Pharmacology
MSC 1085H Molecular Approaches to Mental Health and Addictions
PSY 2703H The Psychology of Addictions
SOC 6129H Sociology of Addiction
SWK 4616H Drug Dependence: Interventive Approaches

Program Committee

Frecker, Richard - BSc, MD, PhD, LMCC - Biomedical Engineering
Wortley, N. Scot - BA, MA, PhD - Criminology
Duff, Wendy - BA, MLS, PhD - Information Studies
Carlen, Peter - MD, FRCP(C) - Medical Science
Muntaner, Carles - MD, PhD - Nursing Science
Sproule, Beth - BScPhm, PharmD - Pharmaceutical Sciences
Cunningham, John - BSc, MA, PhD - Psychology
Mann, Robert - BA, MASc, PhD - Public Health Sciences

(Director)
Rehm, Jurgen - PhD - Public Health Sciences
Herie, Marilyn - BA, MSW, PHD - Social Work
Tepperman, Lorne - BA, MA, PhD - Sociology
Erickson, Patricia - BA, MA, PhD - Centre for Addiction & Mental Health
Ferrence, Roberta - BA, MA, PhD - Ontario Tobacco Research Unit
Aging, Palliative and Supportive Care Across the Life Course

Lead Faculty
School of Graduate Studies

Participating Degree Programs
Adult Education and Community Development – MA, MEd, EdD, PhD
Anthropology – MA, MSc, PhD
Counselling Psychology – MA, MEd, EdD, PhD
Dentistry – MSc, PhD
Exercise Sciences – MSc, PhD
Health Administration – MHSc
Health Policy, Management and Evaluation – MSc, PhD
Information – MI
Information Studies – PhD
Medical Science – MSc, PhD
Nursing Science – MN, PhD
Pharmaceutical Sciences – MSc, PhD
Psychology – MA, PhD
Public Health Sciences – MHSc, MSc, PhD
Rehabilitation Science – MSc, PhD
Social Work – MSW, PhD
Sociology – MA, PhD
Speech-Language Pathology – MSc, PhD
Women and Gender Studies – MA

Overview
The Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course prepares students for specialization in the field of aging and palliative care, with an emphasis on viewing aging issues within the perspective of the life course. The Collaborative Program offers students two options of study:
1. aging and the life course
2. palliative and supportive care

Students must apply to and register in a home participating unit (i.e., one of the graduate programs listed above), and follow a course of study acceptable to both the graduate unit and the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course.

Upon successful completion of the requirements, students receive, in addition to the master’s degree from the home graduate unit, the notation on their transcript: “Completed the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course”.

Master’s Level

Admission Requirements
- Applicants must apply to a participating graduate unit and comply with the admission procedures of that unit. Applicants may apply concurrently to their participating graduate unit and to the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course.
- Applicants must forward the following to the Program Committee of the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course:
  a. a copy of the School of Graduate Studies Application form submitted to the participating graduate unit
  b. copies of official undergraduate and graduate transcripts from all institutions previously or currently attended
  c. a resume or curriculum vitae
  d. a letter explaining how their program of study and specific research interests relate to either option 1 in aging and the life course, or option 2 in palliative and supportive care at the graduate level

Students may use copies of official documents (a. and b. above) for their application to the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course. These may be obtained from their home participating graduate unit.

Program Requirements
- In addition to meeting the program requirements of their home department, students will be required to complete the master’s level core course (0.5 FCE) and one elective course (0.5 FCE) for either of the two options. It is expected that the student’s thesis or practicum (whichever is included in their program of study) would be in one of the two study option areas.

Doctoral Level

Admission Requirements
- Applicants must apply to a participating graduate unit and comply with the admission procedures of that unit.
- Applicants may apply concurrently to their participating graduate unit and to the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course.
• Applicants must forward the following to the Program Committee of the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course:
  a. a copy of the School of Graduate Studies Application form submitted to the participating graduate unit
  b. copies of official undergraduate and graduate transcripts from all institutions previously or currently attended
  c. a resume or curriculum vitae
  d. a letter explaining how their program of study and specific research interests relate to either option 1 in aging and the life course, or option 2 in palliative and supportive care at the graduate level

Students may use copies of official documents (a. and b. above) for their application to the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course. These may be obtained from their home participating graduate unit.

• Two letters of reference (with specific mention of background in either aging/life course or palliative and supportive care).

Program Requirements
• In addition to meeting the program requirements of their home department, students will be required to complete both the master’s and doctoral-level core courses (0.5 FCE each) and one elective course (0.5 FCE) for either of the two options. The master’s level course must be completed before enrolling in the doctoral level course.
• It is expected that the student’s thesis or practicum (whichever is included in their program of study) would be in one of the two study option areas.

Course List

Core Courses for Option 1: Aging and the Life Course

Master’s Level
AGE 2000H Principles of Aging

Doctoral Level
AGE 3000H Advanced Research Seminar in Aging and the Life Course (AGE 2000H is a prerequisite for entry into the doctoral level of the Collaborative Program)

Core Courses for Option 2: Palliative and Supportive Care

Master’s Level
AGE 1000H Multidisciplinary Research Concepts in Palliative and Supportive Care

Doctoral Level
AGE 1500H Advanced Research Methodologies in Palliative and Supportive Care (AGE 1000H is a prerequisite for entry into the doctoral level of the Collaborative Program)

Elective Courses

AEC 1131H Special Topics in Adult Education: Alternative Methods of Researching Aging, Illness and Health
AGE 2500H Current Research Topics in Aging and the Life Course
DEN 1003Y Preventive Dentistry
EXS 5501H Physical Activity and Aging
NUR 1037H Aging and Place: Social and Policy Transitions
NUR 1056H Places, Programs, and People Who Provide Care
NUR 1058H Aging, Gender, and Equity
REH 1520H Physiological Factors Constraining Rehabilitation of the Elderly
REH 1620H Methodological Issues in Research on Aging and Health
REH 1640H Sociology of Disability
SLP 1533Y Aphasias
SLP 1534Y Motor Speech Disorders
SLP 2501H Special Topics in Communication Disorders
SLP 2502Y Specialized Study in Communication Disorders
SOC 6124H The Life Course in Modern Society
SOC 6707H Intermediate Data Analysis
SWK 4612H Social Work and Aging: Integrated Policy and Practice
SWK 4613H Social Work Practice with the Aged: Policy and Practice
SWK 4618H Special Issues in Gerontological Social Work

Requests to approve other courses as equivalent to fulfill program requirements may be made to the Program Committee.

Students taking either option may choose the masters core course in the other option as an elective.

Additional Electives for Option 2 Only

AGE 1200H Interprofessional Psychosocial Oncology: Introduction to Theory and Practice
RLG 2018H Religion and Bioethics
RLG 2037H Religion and Healing
PHL 2145H How Bioethics Fits into Other Disciplines
PHL 2146Y Topics in Bioethics
HAD 5301H Intro to Clinical Epidemiology and Health
HAD 5730H Research Economics I: Economic Evaluation
HAD 5771H Resource Allocation Ethics
LAW 582H Privacy, Property, and the Human Body
LAW 338H Public Health Law
MSC 1051H Research Bioethics
MSC 1060H Biostatistics for Health Sciences
MSC 1090H Intro to Clinical Biostatistics
Collaborative Programs

MSC 3003Y Empirical Approaches in Bioethics
NUR 1021H Nursing Ethics
NUR 1023H Critical Issues in the Design of Controlled Trials of Behavioural Health Care Interventions
NUR 1024H Foundations of Qualitative Inquiry
NUR 1025H Doing Qualitative Research
NUR 1026H Evaluating Interventions in Clinical Settings
NUR 1045H Theories of Pain: Impact on the Individual, Family, and Society
NUR 1046H Persistent Illness: Theoretical, Research, and Practice Implications
NUR 1050H Coping With Illness
NUR 1051H Assessment and Management of Common Responses to Illness

Program Committee
Berta, Whitney - PhD - Health Policy, Management & Evaluation
McDonald, Lynn - BA, MSW, PhD - Life Course & Aging, Social Work
Devins, Gerald - PhD - Medical Science
Rodin, Gary - BSc, MD, FRCP - Medical Science (Co-Chair)
Chasteen, Alison - BA, MA, PhD - Psychology
Einstein, Gillian - PhD - Psychology (Co-Chair)
Berry, Brent - PhD - Sociology

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Ancient and Medieval Philosophy

Lead Faculty
Arts and Science

Participating Degree Programs
Classics – PhD
Medieval Studies – PhD
Philosophy – PhD

Overview
The graduate units listed above participate in the Collaborative Program in Ancient and Medieval Philosophy. The three units contribute courses and provide facilities and supervision of doctoral research. The program operates only at the doctoral level. The program is administered by a Program Committee which is drawn from all three units and is chaired by the Director who is a member of the committee.

Students who wish to enrol in the collaborative program must apply to and be admitted to both the collaborating program and a graduate degree program in one of the collaborating departments. Successful completion of the program permits the designation “Completed Collaborative Program in Ancient and Medieval Philosophy” to appear on the student’s transcript. Interested students should contact the director and the graduate coordinator of the unit in which they intend to register.

Contact and Address
Web: cpamp.utoronto.ca
E-mail: cpamp@chass.utoronto.ca

Doctoral Level

Admission Requirements
• All applicants must meet the admission criteria of the unit through which they wish to enrol.

Program Requirements
• Students must fulfill the normal requirements of the Ph.D. in their home unit.
• Students will normally concentrate in either ancient or medieval philosophy, though it is not necessary to indicate such specialization formally. Their program of study must also be approved by the Program Committee and must include the following elements.
  o A language competence examination at the appropriate level (in at least one of Greek, Classical or Medieval Latin, or Arabic, as relevant) consisting of unseen translation must be successfully completed before the major field or area examinations are first attempted.

Course List
AMP 2000Y Collaborative Program in Ancient and Medieval Philosophy (CPAMP) Proseminar (CR/NCR)

Program Committee
Barney, Rachel - BA, PhD, Canada Research Chair - Classics and Philosophy
Inwood, Brad - BA, MA, PhD, FRSC, Canada Research Chair - Classics and Philosophy (Director)
Pickavé, Martin - BA, MA, PhD - Medieval Studies and Philosophy
Ancient Greek and Roman History

Lead Faculty
Arts and Science

Participating Degree Programs
Classics (University of Toronto) – PhD
History (York University) – PhD

Overview
The Department of Classics at the University of Toronto and the Graduate Program in History at York University participate in the Joint Collaborative Program in Ancient Greek and Roman History (COLPAH). The program provides a broad historical context and methodological framework; Classics provides integration with other fields of study within the ancient world and access to linguistic, cultural, and ancillary disciplines. The program operates only at the doctoral level.

Students are enrolled in one of the two units. The program is administered by a Program Committee of four faculty members, two from each unit, one of whom is the Director. The two units contribute courses and provide facilities and supervision for research. Successful completion of the program permits the designation "Completed Joint Collaborative Doctoral Program in Ancient Greek and Roman History" to appear on the student's transcript.

Interested students should contact the director of the joint collaborative program as well as the graduate coordinator of the unit in which they intend to register.

Contact and Address
Web: www.yorku.ca/ghistory/collaborative/
E-mail: jedmond@yorku.ca
Telephone: (416) 736-5123
Fax: (416) 736-5836

Web: www.chass.utoronto.ca/classics/
E-mail: grad.classics@utoronto.ca
Telephone: (416) 978-5513
Fax: (416) 978-7174

Joint Collaborative Program in Ancient Greek and Roman History (COLPAH)

Department of History
York University
2140 Vari Hall
Toronto, Ontario M3J 1P3
Canada

Department of Classics
University of Toronto
125 Queen's Park Crescent
Toronto, Ontario M5S 2C7
Canada

Doctoral Level

Admission Requirements
• Applicants must meet the admissions criteria of the unit through which they wish to enrol. Interested students register in the joint collaborative program with the approval of the Program Committee upon admission to the PhD program in either unit.
• A strong background in ancient history will be expected of all interested applicants, as will a level of preparation in the ancient languages and languages of research that is appropriate for the institution in which they register.

Program Requirements
• Students take the required seminars CLA 3020H, CLA 3200Y, as well as 1.5 full-course equivalents (FCE) in Greek and Roman history offered by the collaborating units. They will take all other courses to fulfill the requirements of either the Graduate Program in Classics at the University of Toronto or the Graduate Program in History at York University.
• Students take all examinations and meet all language requirements of their home unit.
• The Program Committee approves the major and minor fields of all students in the joint collaborative program; the major field must always be in Greek and Roman history, whereas the minor field will normally be in a complementary area of ancient history but can, where appropriate, be selected from other areas of study covered by the participating units.
• Students must complete the requirements of the collaborative program in addition to those of their home unit.

Course List
CLA 3020H Research Methods in Ancient History (Credit/No Credit)
CLA 3200Y Work in Progress in Ancient History (Credit/No Credit)

Program Committee
Akrigg, Benjamin - BA, PhD - University of Toronto
Cottier, Michel - Licence-ès-Lettres, DPhil - University of Toronto
Edmondson, Jonathan – BA, MA, PhD - York University
Kelly, Benjamin - BA, MA, DPhil - York University
Lead Faculty
Arts and Science

Participating Degree Programs
Anthropology – MA, MSc
East Asian Studies – MA
Economics – MA
Geography – MA, MSc
History – MA
Management – MBA
Planning – MScPl
Political Science – MA
Public Policy and Governance – MPP
Social Work – MSW
Sociology – MA
Women and Gender Studies – MA

Overview
The graduate programs listed above participate in the collaborative master’s degree program in Asia-Pacific Studies at the University of Toronto. The collaborating units contribute courses and provide facilities and supervision for master’s level research. This program is administered by a Program Committee chaired by a Program Director.

The collaborative master’s degree program in Asia-Pacific Studies is designed to provide graduates with advanced training in a particular discipline and in the historical and social science studies of modern East and Southeast Asia. The major topics of emphasis are political economy, modern and contemporary social history, international relations, gender, political and social change, economic development, and cultural studies. The program contributes to the development of an integrated and interdisciplinary research community in Asia-Pacific Studies at the University.

Applicants are expected to meet the admission and degree requirements of both a home unit and the program in Asia-Pacific Studies. The collaborative master’s degree program requirements can be met concurrently with, or in addition to, home unit requirements. In addition to their master’s degree from the home unit, students who successfully complete the requirements of the collaborative program will receive a certificate and the notation “Completed Collaborative Program in Asia-Pacific Studies” on their transcript.

Contact and Address
Web: www.utoronto.ca/asiapacific-ma
E-mail: asiapacific.ma@utoronto.ca
Telephone: (416) 946-8832
Fax: (416) 946-8838

Collaborative Master’s Program in Asia-Pacific Studies
The Munk Centre for International Studies
University of Toronto
Room 228N, 1 Devonshire Place
Toronto, Ontario M5S 3K7
Canada

Master’s Level

Admission Requirements
- Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
- To be considered for admission to the collaborative master’s degree program in Asia-Pacific Studies, applicants should have taken the equivalent of 4.0 full-course equivalents (FCE) with substantial Asia coverage by the time of application, or should have had substantial working or living experience in East or Southeast Asia.
- Applicants use the online application process and must forward the following to the Director of the collaborative master’s degree program:
  - A hard copy Supplementary Application package (www.utoronto.ca/asiapacific-ma);
  - official undergraduate and graduate transcripts from all institutions attended previously and currently;
  - at least two letters of reference with specific mention of Asia-Pacific Studies background or Asia-Pacific experiences;
  - a statement of purpose;
  - a curriculum vitae.

Program Requirements
- ASI 1000Y
- A full-course equivalent (FCE) that may be in the form of one of the following:
  - a master’s thesis
  - a major research paper in one of the FCEs related to Asia-Pacific
  - a thesis-equivalent research paper in an independent research 0.5 FCE. This option must be combined with an additional 0.5 FCE on Asia-Pacific listed on the Web site (www.utoronto.ca/asiapacific-ma).
- By the time of graduation from the master’s degree program, every student is strongly expected to have a working knowledge of an East or Southeast Asian language as needed for his or her program of study.
Course List
ASI 1000Y  Issues in Asia-Pacific Studies

Please consult the Asia-Pacific Studies Web site for courses offered by participating graduate units.

Program Committee
Luong, Hy Van - BA, MA, PhD - Anthropology (Director)
Sakaki, Atsuko - MA, PhD - East Asian Studies
Brandt, Loren - BS, MS, PhD - Economics
Silvey, Rachel - BA, MA, PhD - Geography
Tran, Nhung - BA, MA, PhD - History
Oxley, Joanne - BA, BSc, MBA, MA, PhD - Management
Bertrand, Jacques - BA, MSc, MA, PhD - Political Science
Tsang, Ka Tat - BSoSc, MSocSc, PhD - Social Work
Peng, Ito - BSW, BSc, MA, PhD - Sociology
McElhinny, Bonnie - BA, MA, PhD - Women & Gender Studies
Astrophysics

Lead Faculty
Arts and Science

Participating Degree Programs
Astronomy and Astrophysics – MSc
Physics – MSc

Overview
The graduate programs listed above participate in the Collaborative Master of Science Program in Astrophysics. This program fosters graduate education in Astrophysics, particularly in those areas of study that overlap traditional departmental boundaries.

Upon certification by the Director that all requirements of the collaborative program have been fulfilled, the participating home department will recommend the granting of the MSc degree, and the designation “Completed Collaborative Program in Astrophysics” will appear on the transcript.

Contact and Address
Web: www.astro.utoronto.ca/gradmsc.htm
E-mail: collab.astrophys@utoronto.ca
Telephone: (416) 946-3044
Fax: (416) 971-2026

Collaborative Program in Astrophysics
c/o C. C. Dyer
Department of Astronomy and Astrophysics
University of Toronto
Room AB209, 50 St. George Street
Toronto, Ontario M5S 3H4
Canada

Master’s Level

Admission Requirements
- Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments; this being either Astronomy and Astrophysics or Physics.
- Applicants must submit a supplementary brief application form to the collaborative program Director (available from either home department or the collaborative program office).

Program Requirements
- Students must meet all respective degree requirements of the School of Graduate Studies and the home department. This will normally require the equivalent of 5.0 full-courses equivalents as follows:
  - 1.5 or more FCE in Astronomy and Astrophysics
  - 1.5 or more FCE in Physics
  - 1.0 FCE from Astronomy and Astrophysics, Physics or a cognate department
  - a supervised research project in the field of astrophysics, equivalent to 1.0 FCE. The supervised research project and associated report will be completed under the regulations of AST 1500Y for students whose home department is Astronomy and Astrophysics and under the regulations of PHY 3400Y for students whose home department is Physics.

- Students must attend the seminar program of the Canadian Institute of Theoretical Astrophysics and prepare a report on a selection of these seminars for submission to the Director.
- Program requirements are normally completed within twelve months of entry to the program.

Program Committee
Dyer, Charles - BSc, MSc, PhD - Astronomy & Astrophysics (Director)
Sipe, John - BSc, MSc, PhD – Physics
Murray, Norman - BSc, PhD, Canada Research Chair - Theoretical Astrophysics
Bioethics

Lead Faculty
Medicine

Participating Degree Programs
Health Administration – MHSc
Health Policy, Management, and Evaluation – MSc, PhD
Law – LLM, SJD
Medical Science – MSc, PhD
Nursing Science – MN, PhD
Philosophy – MA, PhD
Public Health Sciences – MHSc, MSc, PhD
Rehabilitation Science -- MSc, PhD
Religion – MA, PhD
Social Work -- PhD

Overview
The graduate units listed above participate in the Collaborative Program in Bioethics at the master’s and doctoral levels.
Students with an interest in bioethics register in one of the graduate units associated with the Collaborative Program in Bioethics (CPB). Upon successful completion, the student receives the master’s or PhD degree in their discipline as well as a notation on the transcript reading “Completed Collaborative Program in Bioethics”.

Contact and Address
Web: www.jointcentreforbioethics.ca/education/cpb.shtml
E-mail: carmen.alfred@utoronto.ca
Telephone: (416) 978-0871
Fax: (416) 978-1911

Joint Centre for Bioethics (JCB)
University of Toronto
88 College Street
Toronto, Ontario M5G 1L4
Canada

Master’s Level

Admission Requirements
• Applicants to the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
• Students interested in the master’s programs apply simultaneously to both the collaborating graduate unit and the CPB. Applications for admission to the CPB are considered only after admission to the collaborating graduate unit. If a student applies to more than one unit, a copy of each file must be submitted to the Academic Secretary, Collaborative Program in Bioethics.
• Visit the CPB’s Web site for the application form and details about supporting documentation. The application must be accompanied by:
  o CPB’s application form;
  o an up-to-date curriculum vitae;
  o up-to-date copies of all transcripts;
  o a one-page letter of intent;
  o two letters of reference.
• Where a thesis is required, an e-mail or note from the proposed supervisor indicating willingness to supervise the student should be submitted to the Academic Secretary. The Joint Centre for Bioethics’ Web site lists faculty and bioethicists who are available for advice relating to research proposals.

Program Requirements
• A student will be expected to meet the requirements of the home graduate unit as well as those of the Collaborative Program.
• Courses taken to complete degree requirements must include the following, which may be counted towards the degree in the home unit:
  o PHL 2145H - a review of the philosophical foundations of bioethics
  o MSC 3001Y - issues and case studies in bioethics
  o 0.5 full-course equivalent (FCE), normally from the home unit; see suggested list below
• Master’s programs require either a thesis or equivalent research project as determined by the home unit. The thesis will be supervised by a thesis committee comprising a supervisor and two other members. The thesis is evaluated according to the procedures and standards of the home graduate unit and must fall within the broad area of bioethics. Non-thesis projects require supervision; requirements for such projects will be determined by the home unit.

Doctoral Level

Admission Requirements
• Applicants to the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
• Students interested in the doctoral programs apply simultaneously to both the collaborating graduate unit and the CPB. Applications for admission to the CPB are considered only after admission to the collaborating graduate unit. If a student applies to more than one unit, a copy of each file must be submitted to the Secretary, Collaborative Program in Bioethics.
• Visit the CPB’s Web site for the application form and details about supporting documentation. The application must be accompanied by:
Collaborative Programs

- CPB's application form;
- an up-to-date curriculum vitae;
- up-to-date copies of all transcripts;
- a one-page letter of intent;
- two letters of reference.

For the doctoral thesis, an e-mail or note from the proposed supervisor indicating willingness to supervise the student should be submitted to the Academic Secretary. The Joint Centre for Bioethics’ Web site lists faculty and bioethicists who are available for advice relating to research proposals.

Program Requirements

- A student will be expected to meet the requirements of the home graduate unit as well as those of the Collaborative Program.
- Courses taken to complete degree requirements must include the following, which may be counted towards the degree in the home unit:
  - PHL 2145H - a review of the philosophical foundations of bioethics
  - MSC 3001Y - issues and case studies in bioethics
  - 0.5 full-course equivalent (FCE), normally from the home unit; see suggested list below

- All doctoral candidates must complete a thesis.
- Thesis supervisors must have appointments to the graduate faculty and will normally be members of the Bioethics Collaborative Program Committee. Ordinarily members of the thesis committee and examining professors are drawn from other relevant disciplines.

Course List

Please note that these courses are not offered every year. Consult each unit's Web site for details.

Health Policy, Management and Evaluation
HAD 5011H Canada's Health Care System
HAD 5306H Introduction to Health Care Research Methodology
HAD 5741H Health Law
HAD 5768H International Perspectives on Health Services Management
HAD 5771H Resource Allocation Ethics

Law
Participation in LAW courses is at the discretion of the Faculty of Law upon presentation, to the Faculty of Law Records Office, of a signed permission form from the student's home department. Note that preference is given to JD students and that many law courses are full by the end of the Faculty of Law add/drop period.
LAW 267H Medical Law
LAW 388H Public Health Law
LAW 582H Privacy, Property and the Human Body

Medical Science
MSC 1051H Research Bioethics
MSC 3002Y Foundations Seminar II
MSC 3003Y Empirical Approaches in Bioethics
MSC 3004Y Ethics Committees and Consultation

Nursing Science
NUR 1021H Nursing Ethics

Philosophy
PHL 2131H Ethics
PHL 2132H Seminar in Ethics
PHL 2133H Topics in Ethics
HPS 1105H Philosophy of Medicine

Public Health Sciences
CHL 5111H Qualitative Research Methods
CHL 5121H Genomics, Bioethics and Public Policy
CHL 5401H Epidemiology Methods I
CHL 5411H International Health
CHL 5124H Public Health Ethics

Religion
RLG 2007H Ethics, Society, and Technology
RLG 2018H Religion and Bioethics

Social Work
SWK 6101H Critical Evaluation of Social Work Practice Theories
SWK 6308H Designing and Implementing Quantitative Social Work Research

Program Committee
Martin, Douglas Kenneth - BSc, PhD - Health Policy, Management & Evaluation
Lemmens, Trudo - CandIur, LicIur, LLM - Law
Upshur, Ross Edward - MA, MD, MSc, FRCP(C) - Medical Science
Peter, Elizabeth - MscN, PhD - Nursing Science
Hawkins, Jennifer - BA, MA, PhD - Philosophy
Daar, Abdallah - DPhil, FRCP(Lond), FRCS, FRCS(C) - Public Health Sciences, Medical Science
Nixon, Stephanie - BHSc(PT), BA, MSc, PhD - Rehabilitation Science
Secker, Barbara - BA, MA, PhD – Rehabilitation Science
(Director)
Novak, David - AB, MHL, rabbinical diploma, PhD - Religion
Faith, Karen – BSW, MEd, MSc, RSW - Social Work
Chambon, Adrienne – BSW, MA, PhD – Social Work
Biomedical Engineering

Lead Faculty
Applied Science and Engineering

Participating Degree Programs
Biochemistry – MSc, PhD
Biomedical Engineering – MASc, PhD
Chemical Engineering and Applied Chemistry – MASc, PhD
Chemistry – MSc, PhD
Dentistry – MSc, PhD
Electrical and Computer Engineering – MASc, PhD
Laboratory Medicine and Pathobiology – MSc, PhD
Materials Science and Engineering – MASc, PhD
Mechanical and Industrial Engineering – MASc, PhD
Medical Science – MSc, PhD
Pharmaceutical Sciences – MSc, PhD
Physics – MSc, PhD
Physiology – MSc, PhD
Rehabilitation Science – MSc, PhD

Overview
The graduate programs listed above participate in the Collaborative Program in Biomedical Engineering at the University of Toronto. This program offers the opportunity for research in biomedical engineering leading to master's and doctoral degrees. The Collaborative Program is housed in the Institute of Biomaterials and Biomedical Engineering (IBBME).

Biomedical engineering is a multidisciplinary field that integrates engineering with biology and medicine. It uses methods, principles, and tools of engineering, physical sciences, and mathematics to solve problems in the medical and life sciences. Biomedical engineering consists of the application of the concepts and methods of engineering and physics to the study of living systems, to the enhancement and replacement of those systems, to the design and construction of systems to measure basic physiological parameters, to the development of instruments, materials, and techniques for biological and medical practice, and to the development of artificial organs. By its nature the field is interdisciplinary and involves close collaboration between many departments of the University and associated hospitals.

Upon successful completion, the student receives the master's or PhD degree in their departmental area as well as a notation on the transcript reading “Completed Collaborative Program in Biomedical Engineering”.

Contact and Address
Web: www.ibbme.utoronto.ca
E-mail: admissions.ibbme@utoronto.ca
Telephone: (416) 978-4841
Fax: (416) 978-4317

Collaborative Program in Biomedical Engineering
University of Toronto
Room 407, Rosebrugh Building
164 College Street
Toronto, Ontario M5S 3G9
Canada

Master's Level

Admission Requirements
Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.

Applicants must be graduates in dentistry, engineering, engineering science, medicine, or one of the physical or biological sciences and must be accepted in the Collaborative Program in Biomedical Engineering through one of the collaborating graduate departments (home departments) listed above.

Program Requirements
Students register in the School of Graduate Studies through their home department; they will meet all respective degree requirements as described by the School of Graduate Studies and the Program Committee.

As part of these requirements:
• Engineering and physical science students will be required to take a biological sciences course such as JPB 1022H (or an equivalent).
• Biological science students will be expected to take a physical sciences course such as JPB 1055H (or an equivalent).
• Students will be expected to take BME 1450H Bioengineering Science and pursue a thesis topic relevant to Biomedical Engineering.
• Students registered in a graduate degree program involving research are required to participate in two seminar courses: one of BME 1010H or BME 1011H Graduate Seminar series and JDE 1000H Ethics in Research.
• Students are required to have a supervisory committee approved by the Program Committee and consisting of a supervisor from IBBME, with a cross appointment in the home department, and other members from other collaborating departments as required.
• The program of study for each Master of Applied Science or Master of Science degree student registered in the Collaborative Program must meet the requirements of the collaborating department and will normally comprise at least 2.0 full-course equivalents (FCE) and a thesis in the biomedical field.
• The examination committee will be constituted according to procedures in the home graduate department and will include a member from that collaborating department.
Collaborative Programs

Doctoral Level

Admission Requirements
Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.

- Applicants must be graduates in dentistry, engineering, engineering science, medicine, or one of the physical or biological sciences and must be accepted in the Collaborative Program in Biomedical Engineering through one of the collaborating graduate departments (home departments) listed above.
- Before PhD students are accepted, the Program Committee must be satisfied with the applicant’s ability to undertake advanced graduate studies.

Program Requirements
A qualifying examination may be required by the collaborating department.

Direct transfer from a bachelor's degree to a PhD program is possible subject to the requirements of the collaborating department. The program of study for each PhD student registered in the Collaborative Program in Biomedical Engineering must be approved by the collaborating department and the Program Committee; the program will normally comprise at least 2.0 full-course equivalents (FCE) and a thesis.

Each PhD student is normally required to have a supervisory committee consisting of at least three persons, including a supervisor who has an appropriate graduate appointment and who is also a member of the graduate faculty in the home department. When appropriate, an additional member of the supervisory committee may be from outside the University of Toronto, with approval from the School of Graduate Studies.

For doctoral degrees, the examination committee will be constituted according to procedures in the home graduate department.

Course List
Not all courses are offered every year. Students should contact the Institute office for details.

- BME 1010H Graduate Seminar
- BME 1011H Graduate Seminar
- BME 1405H Clinical Engineering Instrumentation I
- BME 1430H Mathematical Theory of Tracer Kinetics
- BME 1436H Clinical Engineering
- BME 1445H Special Topics in Clinical Engineering
- BME 1446H Transduction of Physiological Events
- BME 1450H Bioengineering Science
- BME 1452H Signal Processing for Bioengineering
- BME 1453H Cell and Tissue Engineering
- BME 1454H Regenerative Medicine: Fundamentals and Applications
- BME 1456H Changing Health Care Technologies, People, and Places
- BME 1457H Biomedical Nanotechnology
- BME 1458H Pattern Discovery Methods for Biomedical Engineering
- BME 1459H Protein Engineering
- BME 4444Y* Practice in Clinical Engineering
- CHE 1107H Applied Mathematics
- CHE 1138H Mathematical Methods in Chemical Engineering
- CHE 1141H Advanced Chemical Reaction Engineering
- CHE 1143H Transport Phenomena
- CHE 1145H Advanced Chemical Analysis
- CHE 1304H Polymer Mechanics and Rheology
- CHE 1310H Chemical Properties of Polymers
- DEN 1070H Advances in Dental Materials Science
- DEN 1081H Bone Interfacing Implants
- ECE 1228H Electromagnetic Theory
- ECE 1352H Analog Circuit Design I
- ECE 1475H Bio-Photonics
- ECE 1502H Information Theory
- ECE 1511H Signal Processing
- ECE 1512H Digital Image Processing and Applications
- ECE 1514H Spectral Analysis and Array Processing
- ECE 1521H Statistical Communication Theory
- ECE 1647H Nonlinear Control System Analysis
- JCB 1349H Molecular Assemblies: Structure/Function/Properties
- JEB 1356H Ultrasound: Theory and Applications in Biology and Medicine
- JEB 1375H Practical Optimization
- JEB 1433H Medical Imaging
- JEB 1444H Neural Engineering
- JEB 1447H Sensory Communications
- JEB 1451H Neural Bioelectricity
- JNP 1017H* Molecular and Biochemical Basis of Toxicology
- JNP 1018H* Current Topics in Molecular and Biochemical Toxicology
- JNR 1444Y Fundamentals of Neuroscience: Cellular and Molecular
- JNS 1000Y Fundamentals of Neuroscience: Systems and Behaviour
- JNS 1001H Neuroanatomy of Mind
- JNS 1010H Analytical Neuroscience
- JPB 1022H Human Physiology as Related to Biomedical Engineering
- JPB 1055H Bioengineering for Life Scientists
- JTC 1135H Applied Surface Chemistry
- JTC 1331H Biomaterials Science
- MBP 1007H Fundamentals in Molecular and Cell Biology I
- MBP 1008H Fundamentals in Molecular and Cell Biology II
- MBP 1022H Advanced Cell Biology for Physical Scientists
- MIE 1001H Dynamics II
- MIE 1062H Robot Kinematics and Dynamics

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

MIE 1101H Thermodynamics II
MIE 1109H Surface Phenomena
MIE 1201H Fluid Mechanics III
MIE 1405H Human Control of Telerobotic Systems
MIE 1729H Machine Perception and Robot Sensors
MIE 1806H Introduction to Digital Image Processing and Analysis
MMS 1026H Analytical Electron Microscopy
PHM 1108H Advanced Pharmacokinetics II
PHM 1108H Recent Developments in Dosage Form Design
PHM 1110H Chemical Basis of Drug Metabolism
PHM 1117H DNA-Drug Interactions
PSL 1432H Theoretical Physiology
PSL 1052H Fundamentals of Ion Channel Function
REH 1100H Theory and Research in Rehabilitation
REH 1540H Rehabilitation Technology

Program Committee
Rini, James - PhD - Biochemistry
Chan, Warren - BSc, PhD - Biomedical Engineering
Dolan, Alf - BSc, MSc - Biomedical Engineering
Popovic, Milos - MSc, MASc, PhD - Biomedical Engineering
Yip, Christopher - BASc, MSc, PhD, PEng - Biomedical Engineering (Associate Director; Coordinator of Graduate Studies, Biomedical Engineering)
Papangelakis, Vladimir - Dipl Eng, MEng, PhD - Chemical Engineering & Applied Chemistry
Donaldson, James - PhD - Chemistry
Santerre, Paul - BSc, MScEng, PhD - Dentistry
Wong, Willy - BSc, MSc, PhD - Electrical & Computer Engineering
Bardakjian, Berj - BSc, BEd, MASc, PhD, PEng - Electrical & Computer Engineering
Elsholtz, Harry - BSc, MSc, PhD - Laboratory Medicine & Pathobiology
Wang, Zhirui - BEng, MSc, PhD - Materials Science & Engineering
Sullivan, Pierre - BSME, MSME, PhD, PEng - Mechanical & Industrial Engineering
Liu, Mingyao - MSc, MD - Medical Science
Lee, Ping - PhD - Pharmaceutical Sciences
Pang, K Sandy - BScPhm, PhD - Pharmaceutical Sciences
Shepherd, Theodore - BSc, PhD - Physics
Charlton, Milton - PhD - Physiology
MacDonald, John - BSc, PhD - Physiology

Biomedical Engineering 441
Biomedical Toxicology

Overview
The Collaborative Program in Biomedical Toxicology provides graduate students with a unique opportunity to gain breadth and depth of knowledge in biomedical toxicology beyond their thesis research area. This program aims to prepare participants for careers related to toxicology. It emphasizes the development of critical thinking and communication skills in addition to acquiring greater knowledge of basic principles and specific aspects of biomedical toxicology.

The graduate programs listed above participate in this collaborative program. Students may pursue an MSc or PhD degree. Graduate units participating in the program contribute graduate courses, provide facilities, and provide supervision for graduate research.

Graduate students from departments other than the participating units listed, who are interested in pursuing a program in toxicology, should speak to the Director of the Collaborative Program in Biomedical Toxicology and the graduate advisor(s) in their home department to discuss the possibility. Detailed program information is available on the Web at www.pharmtox.utoronto.ca/programs/cpbt.htm and from the Department of Pharmacology and Toxicology.

Upon successful completion, the student receives, in addition to the MSc or PhD degree in their departmental area, a notation on the transcript reading “Completed MSc Collaborative Program in Biomedical Toxicology” or “Completed PhD Collaborative Program in Biomedical Toxicology”.

Contact and Address
Web: www.pharmtox.utoronto.ca/programs/cpbt.htm
E-mail: pharmtox.dept@utoronto.ca
Telephone: (416) 978-5244
Fax: (416) 978-6395

Collaborative Program in Biomedical Toxicology
Department of Pharmacology and Toxicology
University of Toronto
Room 4207, Medical Sciences Building
1 King’s College Circle
Toronto, Ontario M5S 1A8
Canada

Master's Level

Admission Requirements
• Applicants who wish to enrol in the collaborative program must first apply to and be accepted by one of the participating home departments under its regulations. Once students have been admitted to their home department, they should register in the Collaborative Program in Biomedical Toxicology by contacting the Program Director.

Program Requirements
• Complete JNP 1014Y Interdisciplinary Toxicology and JNP 1016H Graduate Seminar in Toxicology.
• Attend a minimum of six academic seminars related to toxicology during the master’s program.
• Complete a research thesis or project as required by the home department. It is understood that the research topic will be in the area of biomedical toxicology.

Doctoral Level

Admission Requirements
• Applicants who wish to enrol in the collaborative program must first apply to and be accepted by one of the participating home departments under its regulations. Once students have been admitted to their home department, they should register in the Collaborative Program in Biomedical Toxicology by contacting the Program Director.

Program Requirements
• Complete JNP 1014Y Interdisciplinary Toxicology; JNP 1016H Graduate Seminar in Toxicology, plus a 0.5 full-course equivalent (FCE) in the area of toxicology (approved by the Director of the collaborative program). The home department and the Director of the Collaborative Program in Biomedical Toxicology will decide whether these courses are in addition to home departmental requirements or substitutions for home departmental requirements.
• Attend a minimum of 12 academic seminars related to toxicology during the doctoral program.
• Complete a research thesis or project as required by the home department. It is understood that the research topic will be in the area of biomedical toxicology.

Course List
JNP 1014Y Interdisciplinary Toxicology
JNP 1016H Graduate Seminar in Toxicology
Program Committee
Jackson, Donald - BSc, MSc, PhD - Ecology & Evolutionary Biology
Elsholtz, Harry - BSc, MSc, PhD - Laboratory Medicine & Pathobiology
Liu, Mingyao - MD, FRCP(C) - Medical Science
Ward, Wendy - BASc, MSc, PhD - Nutritional Sciences
O’Brien, Peter John - BSc, MSc, PhD - Pharmaceutical Sciences
Grant, Denis - BSc, PhD - Pharmacology & Toxicology
Riddick, David - BSc, PhD - Pharmacology & Toxicology
Woodland, Cindy - BSc, MSc, PhD - Pharmacology & Toxicology (Director)
Biomolecular Structure

Lead Faculty
Medicine

Participating Degree Programs
Biochemistry – PhD
Chemistry – PhD
Medical Biophysics – PhD
Molecular Genetics – PhD

Overview
The graduate program in Biomolecular Structure is a collaborative program involving the graduate programs listed above. The program is open to PhD students wishing to train under the supervision of one of the participating investigators. The program will appeal to students from a wide variety of backgrounds with an interest in studying the structure and function of biomolecules.

Contact and Address
Web: biochemistry.utoronto.ca/BMS/
E-mail: james.rini@utoronto.ca
Telephone: (416) 978-0557
Fax: (416) 978-6885

J. M. Rini, Coordinator
Collaborative Program in Biomolecular Structure
Department of Molecular Genetics
University of Toronto
Room 5360, Medical Sciences Building
Toronto, Ontario M5S 1A8
Canada

Doctoral Level

Admission Requirements
- Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments. Applicants must first be admitted to one of the collaborating graduate units before applying to the collaborative program.

Program Requirements
- Complete JBB 2026H Protein Structure, Folding and Design and an additional 0.5 full-course equivalent (FCE) in a specialized topic.
- Participate in the Biomolecular Structure Program seminar series.

Course List
Not all courses will be offered every year. Departments should be consulted each year to confirm course offerings.

JBB 2026H  Protein Structure, Folding and Design
JBB 2025H  Protein Crystallography

Program Committee
Forman-Kay, Julie - BSc, PhD - Biochemistry
Woolley, G Andrew - BSc, PhD - Chemistry
Rose, David - BA, PhD - Medical Biophysics
Kay, Lewis - BSc, PhD, Canada Research Chair - Molecular Genetics
Rini, James - BSc, PhD - Molecular Genetics (Coordinator)
Book History and Print Culture

Lead Faculty
Arts and Science

Participating Degree Programs
Comparative Literature – MA, PhD
East Asian Studies – MA, PhD
English – MA, PhD
French Language and Literature – MA, PhD
History – MA, PhD
History and Philosophy of Science and Technology – MA, PhD
History of Art – MA, PhD
Information – MI
Information Studies – PhD
Italian Studies – MA, PhD
Medieval Studies – MA, PhD
Museum Studies – MMSt
Music – MA, PhD
Religion – MA, PhD

Overview
Histoire du livre, History of the Book, Textual Studies, Print Culture, Sociology of the Text - all these names have been used to describe a growing international academic movement. The graduate programs listed above, in conjunction with Massey College, sponsor an interdisciplinary program in Book History and Print Culture (BHPC) in which the rich physical and human resources of the University of Toronto are brought to bear on multiple aspects of the creation, transmission, and reception of the written word. BHPC brings together graduate students from a variety of disciplines based on their common research interest in the physical, cultural, and theoretical aspects of the book. As a collaborative program, it is designed to augment the learning and research potential of existing master's and doctoral programs by pooling the expertise of U of T faculty members in this field from several disciplines.

Students register first for a master's or doctoral degree in their home unit and then apply to the collaborative program. If they satisfy the requirements of both programs, they receive their degree with a notation on the transcript “Collaborative Program in Book History and Print Culture”.

Contact and Address
Web: bookhistory.fis.utoronto.ca

E-mail: book.history@utoronto.ca
Telephone: (416) 946-3560
Fax: (416) 978-1759

Dan White
Director
Collaborative Program in Book History and Print Culture
University of Toronto
Massey College
4 Devonshire Place
Toronto, Ontario M5S 2E1
Canada

Master's Level

Admission Requirements
- Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and one of the participating degree programs (home unit). Applicants to the collaborative program write to the Director giving information about their background and relevant interests, identifying the degree and home unit for which they are applying, and outlining a proposed program of study by April 1 for September admission. Applicants need not wait for a final decision from the home unit before applying to the collaborative program. (An academic transcript should be included in the application: a photocopy, scanned version, or print-out from a student Web service will do.) Advice is available from the Director and the Program Committee.
- Applications from the participating units have priority in admissions. If there is space in the program, students from other units may apply; they should consult the graduate coordinator in their home unit and the Director of the BHPC program. Since course requirements vary from unit to unit, it is essential that there be close consultation between the collaborative program and the home unit at the time of the application.

Program Requirements
- Students must fulfil the degree requirements of the unit in which they are enrolled.
- BKS 1000Y (1.0 FCE), the foundational seminar, normally taken in the first year of study.
- At least 1.0 FCE in additional courses related to book history and print culture. The additional 1.0 FCE will come from our roster of cross-listed courses, though students may substitute other courses with the approval of the Director. Students are encouraged, if possible, to take courses outside their home unit.
- Depending on the regulations of the home unit, a master's thesis in the area of book history and print culture may be substituted for the additional 1.0 FCE beyond BKS 1000Y.
Doctoral Level

Admission Requirements

- Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and one of the participating degree programs (home unit). Applicants to the collaborative program write to the Director giving information about their background and relevant interests, identifying the degree and home unit for which they are applying, and outlining a proposed program of study by April 1 for September admission. Applicants need not wait for a final decision from the home unit before applying to the collaborative program. (An academic transcript should be included in the application: a photocopy, scanned version, or print-out from a student Web service will do.) Advice is available from the Director and the Program Committee.

- Applications from the participating units have priority in admissions. If there is space in the program, students from other units may apply; they should consult the graduate coordinator in their home unit and the Director of the BHPC program. Since course requirements vary from unit to unit, it is essential that there be close consultation between the collaborative program and the home unit at the time of the application.

Program Requirements

- Students must fulfill the degree requirements of the unit in which they are enrolled. Their program of study must also be approved by the BHPC Program Committee.

- The program of study includes the advanced seminar BKS 2000H and the Practicum BKS 2001H. If students have not already taken BKS 1000Y at the master's level, they will be required to take it as a prerequisite or corequisite to the foregoing two doctoral courses.

- The dissertation topic will be in the area of book history and print culture. The advisory committee will include at least one faculty member affiliated with BHPC, and students are encouraged, but not required, to seek representation on the committee from outside the home unit.

- The program may be completed on a flexible-time basis only by Faculty of Information students registered for the Information flexible-time PhD.

Course List

BKS 1000Y Book History and Print Culture
BKS 2000H Advanced Seminar in Book History and Print Culture
BKS 2001H Practicum in Book History and Print Culture

For further details and for listings of appropriate courses in various graduate units, see Web site bookhistory.fis.utoronto.ca

Program Committee

White, Dan – BA, MA, PhD – English (Director)
Galey, Alan – BA, MA, PhD – Information
Korey, Marie – BA, MS – Massey College
Glinoer, Anthony – MA, PhD – French
McGowan, Mark – BA, MA, PhD – History, Book & Media Studies

MA Student Representative
PhD Student Representative
Cardiovascular Sciences

Lead Faculty

Medicine

Participating Degree Programs

- Biomedical Engineering – MSc, PhD
- Dentistry – MSc, PhD
- Exercise Sciences – MSc, PhD
- Health Policy, Management and Evaluation – MSc, PhD
- Laboratory Medicine and Pathobiology – MSc, PhD
- Medical Biophysics – MSc, PhD
- Medical Science – MSc, PhD
- Nursing Science – MN, PhD
- Pharmacology – MSc, PhD
- Pharmaceutical Sciences – MSc, PhD
- Physiology – MSc, PhD
- Public Health Sciences – MSc, PhD
- Rehabilitation Science – MSc, PhD

Overview

The graduate programs listed above, together with the clinical departments of Anesthesia, Medicine, and Surgery, participate in the graduate Cardiovascular Sciences Collaborative Program at the University of Toronto. Units participating in the program contribute graduate courses and provide facilities and supervision for graduate research. Applicants must first be accepted by one of the participating graduate units and then complete a separate application to register in the collaborative program.

Students follow a program of study acceptable to both the participating unit and the Cardiovascular Sciences Program. Upon successful completion of the requirements, students receive, in addition to the master's or doctoral degree in their home graduate unit, a separate certificate from the program, and the notation “Completed Collaborative Program in Cardiovascular Sciences” on their transcript.

Contact and Address

Web: www.cscp.utoronto.ca
E-mail: cv.program@utoronto.ca
Telephone: (416) 978-0746
Fax: (416) 946-5713

Cardiovascular Sciences Collaborative Program
University of Toronto
Room 88, FitzGerald Building
150 College Street
Toronto, Ontario M5S 3E2
Canada

Master's Level

Admission Requirements

- Normally an A- average in previous course work (publications and research work may be considered for mature students).
- Student has already been accepted into a home graduate unit that participates in the Cardiovascular Sciences Collaborative Program.
- Acceptance by a supervisor who is a faculty member of the Cardiovascular Sciences Collaborative Program.
- Research area falls within mandate of the Cardiovascular Sciences Collaborative Program.

Program Requirements

- Students must meet the requirements of their home graduate unit in terms of course work and thesis work.
- Write a thesis under the supervision of a faculty member of the Collaborative Program. The thesis topic will be in the area of cardiovascular sciences. An unbound copy of the accepted thesis in final form must be submitted to the Cardiovascular Sciences Collaborative Program.
- To qualify for the Cardiovascular Sciences specialization, students obtaining their master's degree must complete 0.5 full-course equivalent (FCE) in an approved cardiovascular course listed under approved “Courses of Instruction”.
- Attend the annual Student Research Day and demonstrate excellence in cardiovascular related research.

Doctoral Level

Admission Requirements

- Normally an A- average in previous course work (publications and research work may be considered for mature students).
- Student has already been accepted into a home graduate unit that participates in the Cardiovascular Sciences Collaborative Program.
- Acceptance by a supervisor who is a faculty member of the Cardiovascular Sciences Collaborative Program.
- Research area falls within mandate of the Cardiovascular Sciences Collaborative Program.

Program Requirements

- Students must meet the requirements of their home graduate unit in terms of course work and thesis work.
- Write a thesis under the supervision of a faculty member of the Collaborative Program. The thesis topic will be in the area of cardiovascular sciences. An unbound copy of the accepted thesis in final form
must be submitted to the Cardiovascular Sciences Collaborative Program.

- To qualify for the Cardiovascular Sciences specialization, students obtaining their doctoral degree must have 1.0 full-course equivalent (FCE) (1.0 FCE = two half-courses) chosen from among the following four courses: JCV 3060H, JCV 3061H, JCV 3062H, JCV 3063H.
- All students must attend the annual Student Research Day and demonstrate excellence in cardiovascular related research.

**Course List**
Cardiovascular sciences courses offered by the participating units are listed below. Not all courses are offered each year. For course details, consult the program’s Web site, www.cscp.utoronto.ca.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXS 5508H</td>
<td>Cardiovascular Disease and Exercise</td>
</tr>
<tr>
<td>JCV 1060H</td>
<td>Developmental Cardiovascular Physiology</td>
</tr>
<tr>
<td>JCV 3060H</td>
<td>Advanced Topics in Cardiovascular Sciences—Molecular Biology and Heart Signal Transduction</td>
</tr>
<tr>
<td>JCV 3061H</td>
<td>Advanced Topics in Cardiovascular Sciences—Hormones</td>
</tr>
<tr>
<td>JCV 3062H</td>
<td>Advanced Topics in Cardiovascular Sciences—Heart Function</td>
</tr>
<tr>
<td>JCV 3063H</td>
<td>Advanced Topics in Cardiovascular Sciences—Vascular</td>
</tr>
<tr>
<td>JEB 1365H</td>
<td>Ultrasound: Theory and Applications in Biology and Medicine</td>
</tr>
<tr>
<td>JTC 1331H</td>
<td>Biomaterials Science</td>
</tr>
<tr>
<td>LMP 1015H</td>
<td>Vascular Pathobiology</td>
</tr>
<tr>
<td>LMP 1504H</td>
<td>Cell and Molecular Biology of Cardiovascular Diseases</td>
</tr>
<tr>
<td>PSL 1462H</td>
<td>Molecular Aspects of Cardiac Function</td>
</tr>
</tbody>
</table>

**Program Committee**
Steinman, David - BASc, MASc, PhD, PEng – Biomedical Engineering
Thomas, Scott - BSc, MSc, PhD - Exercise Sciences
Rand, Margaret - BSc, PhD - Laboratory Medicine & Pathobiology
Wright, Graham - BASc, MASc, PhD - Medical Biophysics
Rao, Vivek - BSc, PhD, MD, FRCSC - Medical Science
Wittnich, Carin - MSc, DVM - Medical Science, Physiology (Director)
Clarke, Sean - RN, PhD, FAAN - Nursing Science
Wu, Xiao Yu - BSc, MScEng, PhD - Pharmaceutical Sciences
Parker, John - MD - Pharmacology
Heximer, Scott, PhD - Canada Research Chair - Physiology
Brooks, Dina - BSc(PT) - MSc, PhD - Rehabilitation Science
Student Representatives
Collaborative Programs

Community Development

Lead Faculty
School of Graduate Studies

Participating Degree Programs
Adult Education and Community Development – MA, MEd
Counselling Psychology – MA, MEd
Nursing Science – MN
Planning – MScPl
Public Health Sciences – MPH
Social Work – MSW

Overview
The Collaborative Program in Community Development provides students with a multidisciplinary graduate education in community development. Community development involves working with community members and groups to effect positive change in the social, economic, organizational, or physical structures of a community that improve both the welfare of community members and the community’s ability to direct its future.

Students must first apply to and register in one of the participating master's degree programs listed above, and then apply to the collaborative program. Students must follow a course of study acceptable to both the home unit and the Collaborative Program. Upon completion of both programs, the student receives the degree from their home unit and the following notation on their transcript: "Completed the Collaborative Program in Community Development".

Contact and Address
Web: www.urbancentre.utoronto.ca/communitydevelopment.html
E-mail: urban.centre@utoronto.ca
Telephone: (416) 416 978-2072
Fax: (416) 416 978-7162

Collaborative Program in Community Development
Centre for Urban and Community Studies
University of Toronto
Suite 400, 455 Spadina Avenue
Toronto, Ontario M5S 2G8
Canada

Course List

Core Course
UCS 1000H Community Development: Theory and Practice

Students must take an additional 1.0 FCE in the subject area of the Collaborative Program, to be approved by the Collaborative Program director. The following is a list of the currently approved courses; list is reviewed annually and posted on the program Web site.

Adult Education
AEC 1102H Community Development: Innovative Models

Master's Level
Admission Requirements
- Applicants must submit the following to the Program Committee of the Collaborative Program in Community Development:
  - a copy of the letter accepting you into one of the participating graduate units;
  - a resume or curriculum vitae;
  - a letter explaining how your program of study, your specific interests, and your career goals relate to community development (i.e. why you want to enrol in the Collaborative Program in Community Development). Maximum length: 500 words. Include reference to any relevant experience (volunteer, work, education, etc.).

Program Requirements
- Students must register in the master's degree program through one of the participating home graduate units. They must meet all respective degree requirements of the School of Graduate Studies and their participating home graduate unit.
- To fulfil the requirements of the Collaborative Program in Community Development, they must complete the following:
  - the core course UCS 1000H Community Development: Theory and Practice
  - an additional 1.0 full-course equivalent (FCE) in the subject area of the Collaborative Program, to be approved by the Collaborative Program director, of which at least 0.5 FCE must be external to the home graduate unit
  - participation in a non-credit coordinating seminar on community development
  - where required by the home degree program, a thesis or the major research paper (as designated by the home degree program) on a topic related to community development. A member of the thesis committee or the reader of the major research paper must be a faculty member associated with the Collaborative Program.
- Normally, the required courses listed below are taken as options within regular departmental or faculty degree requirements, not as additional courses.

Core Course
UCS 1000H Community Development: Theory and Practice

Students must take an additional 1.0 FCE in the subject area of the Collaborative Program, to be approved by the Collaborative Program director. The following is a list of the currently approved courses; list is reviewed annually and posted on the program Web site.

Adult Education
AEC 1102H Community Development: Innovative Models
Collaborative Programs

AEC 1104H Community Education and Organizing
AEC 1131H Special Topics in Adult Education
AEC 3119H Global Perspectives on Feminist Education, Community Development and Community Transformation
AEC 3131H Special Topics in Adult Education
AEC 3182H Citizenship Learning and Participatory Democracy

Counselling Psychology
AEC 1275H Special Topics in Counselling Psychology
AEC 1289H Community Mental Health
AEC 1409H Creative Empowerment Work with the Disenfranchised: Healing and Collective Action
AEC 3211H Counselling and Researching in Context: Critical Perspectives on Counselling and Health Promotion Research

Planning
JPG 1421H Health in Urban Environments
PLA 1503H Planning and Social Policy
JPG 1507H Housing and Housing Policy
JPG 1508H Planning with the Urban Poor in Developing Countries
JPG 1512H Place, Politics and the Urban
JPG 1615H Planning the Social Economy

Public Health Sciences
CHL 5801H Health Promotion
CHL 7001H Directed Reading in an Approved Field of Community Health

Social Work
SWK 4210H Promoting Empowerment
SWK 4306H Process of Social Exclusion, Marginalization, and Resistance
SWK 4422H Social Housing and Homelessness
SWK 4568H Social Work with Immigrants and Refugees

Program Committee
Schugurensky, Daniel - BEd, MEd, PhD - Adult Education & Counselling Psychology
Stewart, Suzanne - BA, MA, PhD - Adult Education & Counselling Psychology
Wakefield, Sarah - BA, MA, PhD - Geography
Poland, Blake - BA, MA, PhD - Public Health Sciences
Hulchanski, J David - BA, MSc(Pl), PhD, MCIP,
Chow Yei Ching Social Work Chair in Housing - Social Work
Comparative, International and Development Education

Lead Faculty
Ontario Institute for Studies in Education

Participating Degree Programs
Adult Education and Community Development – MA, MEd, EdD, PhD
Curriculum Studies and Teacher Development - MA, MEd, PhD
Educational Administration – MA, MEd, EdD, PhD
Higher Education – MA, MEd, EdD, PhD
History and Philosophy of Education – MA, MEd, EdD, PhD
Second Language Education – MA, MEd, EdD, PhD
Sociology in Education – MA, MEd, EdD, PhD

Overview
Comparative, International and Development Education (CIDE) is one of the world's largest, most diverse and dynamic graduate programs in the field of comparative education. Research interests span an exciting range of theoretical and practical issues, from the study of ethnicity and identity to the issues of globalization and global governance, from non-formal learning and citizenship education to concrete problems of educational reform, social equality, language education, conflict resolution and community development. We approach these issues from a range of theoretical and disciplinary frames: more traditional, sociological, historical, and philosophical approaches are taught alongside vibrant interpretations of feminist, critical, post-structuralist and cultural theories.

The CIDE program will interest Canadian students who wish to work and live in other cultures. It will also interest international students who wish to relate their studies at OISE/UT directly to their own societies and learning systems.

Students can take courses in such fields as political science, feminist studies, sociology, and geography. The CIDE program is linked with events and programs at the Munk Centre for International Studies at the University of Toronto.

Successful students receive a notation on their transcript identifying their specialization in Comparative, International and Development Education.

Contact and Address
Web: cide.oise.utoronto.ca
E-mail: cide@oise.utoronto.ca
Telephone: (416) 978-0892
Fax: (416) 926-4749

Master's Level
Admission Requirements
• Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments. Applicants should apply to the appropriate degree program in one (or more) of the collaborating departments that corresponds most closely to their general background and interests.
• Applicants to the CIDE Collaborative Program are normally expected to have had at least one year of international or cross-cultural experience.
• Prospective applicants should review the detailed information about the CIDE program available on the CIDE Web page at http://cide.oise.utoronto.ca.

Program Requirements
• Individual student programs of study must meet the requirements of both the home department and the Collaborative Program. Normally, a careful selection of courses will satisfy this requirement without any additional course load.
• Courses as follows:
  o 0.5 full-course equivalent (FCE) required introduction: CIE 1001H Introduction to Comparative, International and Development Education
  o 0.5 core FCE CIDE master's level course
  o 1.0 FCE (equivalent to two half-courses) other core CIDE or specialization master's-level courses
• Regular participation in and attendance at the CIDE Seminar Series.
• In master's programs requiring a major research paper or a thesis, the topic must relate to and demonstrate master's-level understanding of the research/ theory base of CIDE. Participating CIDE faculty and the home department must be represented on the thesis committee.

Doctoral Level
Admission Requirements
• Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.

Comparative, International and Development Education Centre (CIDEC)
Ontario Institute for Studies in Education
University of Toronto
7th floor, 252 Bloor Street West
Toronto, Ontario M5S 1V6
Canada
Applicants should apply to the appropriate degree program in one (or more) of the collaborating departments that corresponds most closely to their general background and interests.

- Applicants to the CIDE Collaborative Program are normally expected to have had at least one year of international or cross-cultural experience.
- Prospective applicants should review the detailed information about the CIDE program available on the CIDE Web page at http://cide.oise.utoronto.ca. They are strongly advised to contact one of the core CIDE faculty members in their home department to discuss their research interests and goals.

**Program Requirements**

- Individual student programs of study must meet the requirements of both the home department and the Collaborative Program. Normally, a careful selection of courses will satisfy this requirement without any additional course load.
- Courses as follows:
  - 0.5 full-course equivalent (FCE) required introduction: CIE 1001H Introduction to Comparative, International and Development Education, if not already taken, or equivalent if transferring from another university.
  - 0.5 FCE core CIDE doctoral level course
  - 1.0 FCE (equivalent to two half-courses) other core CIDE or specialization doctoral-level courses
  - Regular participation in and contribution to the CIDE Seminar Series (at least one major presentation to the seminar group related to the student's thesis research/development work in addition to regular participation). Minimum attendance at 5 seminars required.
  - Completion of a thesis that contributes to the research/theory base of CIDE. Participating CIDE faculty and the home department must be represented on the thesis committee.

**Course List**

Not all courses are offered each year. Refer to cide.oise.utoronto.ca for current course offerings.

**Comparative Education**

CIE 1001H Introduction to Comparative, International and Development Education
CIE 1002H Practicum for Comparative, International and Development Education

**Adult Education and Counselling**

**Psychology**

AEC 1102H Community Development: Innovation Models
AEC 1114H Comparative and International Perspectives in Adult Education

AEC 1145H Participatory Research in the Community and the Workplace
AEC 1146H Women, War and Learning
AEC 1180H Aboriginal World Views: Implications for Education
AEC 1181H Embodied Learning and Qi Gong
AEC 1311H Special Topics: Community Healing and Peacebuilding
AEC 3103H Teaching about Global and Social Issues
AEC 3104H Political Economy of Adult Education in Global Perspectives
AEC 3119H Global Perspectives on Feminist Education, Community Development, and Community Transformation
AEC 3126H Transformative Education and the Global Community: Creativity and Social Change
AEC 3132H Special Topics in Women in Development and Community Transformation
AEC 3138H Social Theories and Adult Education
AEC 3140H Post-Colonial Relations and Transformative Education
AEC 3179H Work, Technology and the Knowledge Economy
AEC 3180H Global Governance and Educational Change: the Politics of International Cooperation in Education
AEC 3182H Citizenship Learning and Participatory Democracy

**Curriculum, Teaching and Learning**

CTL 1061H Comparative Education: The Development of Third World Educational Systems
CTL 1033H Multicultural Perspectives in Teacher Development: Reflective Practicum
CTL 1037H Comparative and Cross-Cultural Perspectives
CTL 1060H Education and Social Development
CTL 1312H Democratic Citizenship Education
CTL 1318H Teaching Conflict and Conflict Resolution
CTL 1816H Official Discourses and Minority Education (Doctoral students only)
CTL 1863H Controversial Issues in Development Education
CTL 1864H Methodologies for Comparing Educational Systems
CTL 3008H Critical Pedagogy, Language, and Cultural Diversity
CTL 3015H Seminar in Second-Language Literacy Education
CTL 3018H Language Planning and Policy (Politique et aménagement linguistique)
CTL 3024H Second Language Teacher Education

**Sociology and Equity Studies in Education**

SES 1912H Foucault and Research in Education and Culture: Discourse, Power and the Subject
SES 1921Y The Principles of Anti-Racism Education
SES 1922H Sociology of Race and Ethnicity
SES 1924H Modernization, Development, and Education in African Contexts
Collaborative Programs

Comparative, International and Development Education

**SES 1927H** Global Economic Restructuring—International Migration—Immigration Policies

**SES 1925H** Indigenous Knowledge and Decolonization: Pedagogical Implications

**SES 1956H** Social Relations of Cultural Production in Education

**SES 2999H** Special Topics in Sociological Research in Education (as designated by CIDE)

**SES 3910H** Advanced Seminar on Race and Anti-Racism Research Methodology in Education

**SES 3911H** Cultural Knowledges, Representation and Colonial Education

**SES 3914H** Anti-Colonial Thought and Pedagogical Challenges

**SES 3921H** Language and Social Difference in Education: Comparative Perspectives

**SES 3933H** Theorizing Transnationality: Feminist Perspectives

**SES 3942H** Innovations in Education: A Comparative Analysis

**SES 3943H** Sociology of State Formation and Genealogies of Government

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**Theory and Policy Studies in Education**

**TPS 1016H** School Program Development and Implementation

**TPS 1019H** Diversity and the Ethics of Educational Administration

**TPS 1020H** Teachers and Educational Change

**TPS 1027H** The Search for Educational Quality and Excellence in a Global Economy

**TPS 1029H** Special Applications of the Administrative Process: Improving Student Outcomes on a System Wide Scale

**TPS 1047H** Managing Changes in Classroom Practice

**TPS 1400H** The Origins of Modern Schooling I: Problems in Education Before the Industrial Revolution

**TPS 1415H** The History of the Teaching Profession

**TPS 1420H** European Popular Culture and the Social History of Education I

**TPS 1421H** The History of Women and Education

**TPS 1422H** Education and Family Life in the Modern World I

**TPS 1425H** Class Formation and Its Relation to the Schools

**TPS 1430H** Gendered Colonialisms, Imperialisms and Nationalisms in History

**TPS 1447H** Technology in Education: Philosophical Issues

**TPS 1448H** Popular Culture and the Social History of Education II

**TPS 1803Y** Recurring Issues in Postsecondary Education

**TPS 1806H** Systems of Higher Education

**TPS 1807H** Strategic and Long-range Planning for Postsecondary Systems

**TPS 1825H** Comparative Education: Theory and Methodology

**TPS 1826H** Comparative Higher Education

**TPS 1832H** East Asian Higher Education

**TPS 2006H** Educational Finance and Economics (Students who have taken TPS 1017H, TPS 1841H are not eligible to take TPS 2006H)

**TPS 3017H** Problems in the Finance and Economics of Education

**TPS 3020H** Educational Change in the Post-Modern Age

**TPS 3029H** Special Topics in Educational Administration: Advanced Topics for Educational Administration

**TPS 3041H** Administrative Theory and Educational Problems II: Doctoral Seminar on Policy Issues in Education

**TPS 3045H** Educational Policy and Program Evaluation

**TPS 3429H** Education and Family Life in the Modern World II

**TPS 3447H** Theories of Modernity and Education I

**TPS 3806H** Case Studies in Comparative Higher Education

**TPS 3810H** International Academic Relations

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**Geography**

**JPG 1509H** Feminism, Postcoloniality and Development

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**Political Science**

**JPE 2408Y** Political Economy of International Development

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**Program Committee**

Mojab, Shahrazad - MEd, PhD - Adult Education & Counselling Psychology

Mundy, Karen - BA, MA, PhD, Canada Research Chair - Adult Education & Counselling Psychology (Director)

Schugurensky, Daniel - BEd, MEd, PhD - Adult Education & Counselling Psychology

Bickmore, Kathy - BA, MA, PhD - Curriculum, Teaching & Learning

Cumming, Alister - BA, MA, PhD - Curriculum, Teaching & Learning

Evans, Mark - PhD - Curriculum, Teaching & Learning, (Associate Dean, Teacher Education)

Farrell, Joseph - BSc, PhD - Curriculum, Teaching & Learning

Feuerverger, Grace - BA, MA, PhD - Curriculum, Teaching & Learning

Masemann, Vandra Lea - PhD - Curriculum, Teaching & Learning

Niyozov, Sarfaroz - BA, MA, PhD - Curriculum, Teaching & Learning

Dei, George J. S. - BA, MA, PhD - Sociology & Equity Studies in Education

Olson, Paul - BA, MA - Sociology & Equity Studies in Education

Anderson, Stephen - PhD - Theory & Policy Studies in Education
Collaborative Programs

Hayhoe, Ruth - BA, MA, PhD - Theory & Policy Studies in Education
Joshee, Reva - BA, MA, PhD - Theory & Policy Studies in Education
Developmental Biology

Lead Faculty

Medicine

Participating Degree Programs

Biochemistry – PhD
Cell and Systems Biology – PhD
Dentistry – PhD
Immunoology – PhD
Laboratory Medicine and Pathobiology – PhD
Medical Biophysics – PhD
Molecular Genetics – PhD
Physiology – PhD

Overview

The graduate programs listed above participate in the Collaborative Program in Developmental Biology. The objectives of the program are to:

1. promote and foster excellence in developmental biology research in Toronto.
2. provide a means for graduate students working on developmental biology projects to be exposed to a broad range of issues and approaches in modern developmental biology.
3. provide a single comprehensive advanced PhD-level graduate course to complement a number of introductory courses provided by different departments.
4. provide a forum for interaction between investigators in Developmental Biology in different departments via participation in student seminars, supervisory committees, journal clubs, retreats and seminars/symposia.

This is a PhD program only.

Upon successful completion of the PhD requirements of the host department and the program, students receive the notation “Completed Program in Developmental Biology” on their transcript.

Contact and Address

Web: www.utoronto.ca/devbiol/
E-mail: dev.bio@utoronto.ca
Telephone: (416) 586-8267
Fax: (416) 586-8857

Dr. Helen McNeill
Collaborative Program in Developmental Biology
Department of Molecular Genetics
University of Toronto
600 University Avenue, Room 884
Toronto, Ontario M5G 1X5
Canada

Doctoral Level

Admission Requirements

• Students who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments. Students must be registered in the doctoral program of one of the host departments and must be undertaking research in developmental biology under the supervision of a member of the program.

• Prospective students should contact the coordinator for additional details on admission procedures and course requirements.

Program Requirements

• Complete any core courses required by the host department. In addition, they must complete the interdepartmental course JDB 1025H and the seminar course JDB 1026Y. These courses may be taken in place of some host department courses.

• Complete a PhD thesis.

Course List

The following courses are offered by the program every year.

JDB 1025H Developmental Biology
JDB 1026Y Student Seminars in Developmental Biology

Program Committee

Tepass, Ulrich - PhD, CIHR Investigator - Cell & Systems Biology
Zuniga-Pflucker, Juan Carlos - PhD, Canada Research Chair in Developmental Immunology - Immunology
Brill, Julie - PhD - Molecular Genetics
McNeill, Helen - PhD - Molecular Genetics (Director)
Roy, Peter John - PhD - Canada Research Chair in Molecular Neurobiology - Molecular Genetics
Zhen, Mei - PhD, Canada Research Chair in Brain and Behaviour - Molecular Genetics
Forgione, Nicole - Cell & Systems Biology (Student Representative)

Courses which may continue over a program. The course is graded when completed.
Developmental Science

Lead Faculty
Ontario Institute for Studies in Education

Participating Degree Programs
Developmental Psychology and Education – MA, PhD
Psychology – MA, PhD

Overview
The University of Toronto has a very strong group of developmental researchers located in two separate departments: the Department of Psychology and the Department of Human Development and Applied Psychology at the Ontario Institute for Studies in Education. The Collaborative Program in Developmental Science brings these researchers and their students together to provide a comprehensive training program that covers the breadth of developmental science, moving the study of human development beyond its conventional disciplinary boundaries. Developmental and educational psychology, cognitive science, neuroscience, and treatment and prevention sciences are presented as a multidisciplinary foundation for understanding human development and disseminating the benefits of that understanding.

The Collaborative Program prepares students for research careers in basic and applied developmental science. Research into basic processes examines the psychological, computational, and biological mechanisms of cognitive and emotional development, social development, personality development, and developmental psychopathology. More applied research investigates the psychological and biological effects of prevention and intervention techniques in educational, community, and clinical practices. The program also serves to familiarize faculty and students in the program with each other’s research across a broad span of topics and approaches, broadening the perspective and relevance of their work and leading to new collaborative research proposals.

Contact and Address
Web:
1 www.psych.utoronto.ca/~devsci/
2 hdap.oise.utoronto.ca/pages/admissions.html
E-mail:
1 grad@psych.utoronto.ca
2 gradstudy@oise.utoronto.ca
Telephone: (416) 923-6641 ext. 2422
Fax: (416) 926-4713

Master's Level

Admission Requirements
- Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
- MA students must be accepted under the SGS general regulations by one of the participating departments and according to the specific criteria of the department. In addition, students must apply and be admitted to the Developmental Science Collaborative Program.
- Normally, a psychology background and a demonstrated interest in developmental psychology will be sufficient grounds for admission.
- Students who wish to be admitted to the program must apply to work with faculty members in the program who will act as their research supervisors and advisors.

Program Requirements
- Students must register in the home department and select a course of study that satisfies the requirements of their departmental program as well as the requirements of the Collaborative Program. The student’s advisor will provide counselling and supervision appropriate to both sets of requirements.
- Master’s students follow the requirements of the department in which they are registered, but must include:
  - 1.0 core full-course equivalent (FCE): JDS 1233H Cognitive Development and Applications and JDS 1249H Social-Emotional Development and Applications
  - attendance at a monthly colloquium series

Doctoral Level

Admission Requirements
- Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
- PhD students must be accepted under the SGS general regulations by one of the participating departments and according to the specific criteria of the department. In addition, students must apply and be admitted to the Developmental Science Collaborative Program.
- Normally, a psychology background and a demonstrated interest in developmental psychology will be sufficient grounds for admission.
- Students who wish to be admitted to the program must apply to work with faculty members in the program who will act as their research supervisors and advisors.
Program Requirements

- Students must register in the home department and select a course of study that satisfies the requirements of their departmental program as well as the requirements of the Collaborative Program. The student's advisor will provide counselling and supervision appropriate to both sets of requirements.
- Doctoral students follow the requirements of the department in which they are registered, but must include:
  - Core course JDS 3000H Advanced Methods in Developmental Science - two term papers required for this course should focus on research directions relevant to their dissertation topics
  - JDS 1233H Cognitive Development and Applications and JDS 1249H Social-Emotional Development and Applications (unless already completed at the master’s level)
  - attendance at a monthly colloquium series

Program Committee

Jenkins, Jennifer - BA, MA, PhD, CPsych - Human Development and Applied Psychology
Lewis, Marc - BA, MA, PhD, CPsych - Human Development and Applied Psychology (Director)
Tafarodi, Romin - BA, PhD - Psychology
Collaborative Programs

Dynamics of Global Change

Lead Faculty
Arts and Science

Participating Degree Programs
Adult Education and Community Development – PhD
Anthropology – PhD
Economics – PhD
Educational Administration – PhD
Geography – PhD
Health Services Research – PhD
Law – SJD
Management – PhD
Political Science – PhD

Overview
The Collaborative Program in the Dynamics of Global Change is a multidisciplinary program that explores the frontiers of global change across a wide range of issues and identifies the underlying dynamics of change. In a rapidly evolving, complex, and loosely structured global system that engages new actors, change occurs at multiple levels and can have amplifying effects in unexpected ways. This program explores these complex interconnections across disciplinary fields and issue areas. From their home departments, students may take up questions from their own disciplines but explore them through the theoretical and methodological lens of global change.

Contact and Address
Web: www.utoronto.ca/mcis/dgc
E-mail: cis.mair@utoronto.ca
Telephone: (416) 946-8917 (for general inquiries)

Megan Ball
Program Administrator
Collaborative Program in Dynamics of Global Change
Munk Centre for International Studies
University of Toronto
1 Devonshire Place
Toronto, Ontario M5S 3K7
Canada

Doctoral Level

Admission Requirements
• Each graduate student in the Program shall be enrolled in a participating degree program in the graduate unit where the research is conducted, which is known as the home graduate unit. The student shall meet the admission requirements of both the home graduate unit and the Collaborative Program.

Program Requirements
• Students must meet all respective degree requirements of the School of Graduate Studies, the participating graduate unit, and the Collaborative Program.
• Collaborative program course requirements:
  o 0.5 full-course equivalent (FCE) core course in the Dynamics of Global Change
  o 0.5 FCE comprising two intensive, modular courses in the Dynamics of Global Change
• Students will pursue a dissertation topic related to the dynamics of global change. Normally, the dissertation supervisor will be a core faculty member of the Program. At least one member of the dissertation committee should be drawn from a graduate unit different from and cognate to the student’s home unit.
• Each student’s course of study and overall progress will be reviewed annually by the Collaborative Program director, though ultimate responsibility for the student’s progress will remain with the graduate chair of the home program.

Course List
DGC 1000H Core Issues in the Dynamics of Global Change
DGC 2000H Special Topics in the Dynamics of Global Change
DGC 2001H Special Topics in the Dynamics of Global Change
DGC 2002H Special Topics in the Dynamics of Global Change
DGC 2003H Special Topics in the Dynamics of Global Change

Program Committee
Mundy, Karen - BA, MA, PhD, Canada Research Chair - Adult Education & Counselling Psychology
Boddy, Janice - BA, MA, PhD, FRSC - Anthropology
Hosios, Arthur - BEng, MA, MEng, PhD - Economics
Daniere, Amrita - AB, MPP, PhD, MCIP - Geography
Lemieux-Charles, Louise - BScN, MScN, PhD - Health Policy, Management & Evaluation
Dyzenhaus, David - BA, LLB, DPhil, FRSC - Law
Pauly, Peter - MA, PhD - Management
Cameron, David - MSc, BA, PhD - Political Science
Joshee, Reva - BA, MA, PhD - Theory & Policy Studies in Education
Editing Medieval Texts

Lead Faculty
Arts and Science

Participating Degree Programs
Classics – PhD
English – PhD
French Language and Literature – PhD
History – PhD
Italian Studies – PhD
Medieval Studies – PhD
Music – PhD
Philosophy – PhD
Religion – PhD
Spanish – PhD

Overview
The Collaborative Program in Editing Medieval Texts offers intensive training in the editing of medieval Latin and vernacular texts, including music. Training in all areas is based on a sound knowledge of Latin, a facility in examining manuscript documents, and an understanding of the principles of editorial method. Students can choose to focus on editing texts in Latin, texts in Old and Middle English, or texts in other vernacular languages. Students in the program complete a series of courses that deal with the techniques of reading, transcribing, and editing manuscripts, and then complete an editorial project.

Contact and Address
Web: www.chass.utoronto.ca/medieval/
E-mail: medieval.studies@utoronto.ca
Telephone: (416) 978-4884
Fax: (416) 978-8294

Collaborative Program in Editing Medieval Texts
Centre for Medieval Studies
University of Toronto
125 Queen’s Park, 3rd Floor
Toronto, Ontario M5S 2C7
Canada

Doctoral Level

Admission Requirements
• Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments. The Collaborative Program is only available to students in the doctoral stream.

• Students may apply for admission to the Collaborative Program as soon as they have passed the Centre for Medieval Studies’ Level One Latin examination. Students should take the Level One Latin examination no later than the September sitting of their first year (the examination may also be taken the previous April) in order to determine whether they will need to take MST 1000Y during the first year.

• Students must already be admitted to the doctoral stream of one of the collaborating graduate units listed above.

Program Requirements
• MST 1104H and either MST 1105H or MST 1115H.
• 1.0 full-course equivalent (FCE) chosen from MST 1101H, MST 1107H, MST 1110H, MST 1113H, MST 1385H, ENG 1093H, or another approved course.
• Participation in the required seminar in editorial practices and resources: MST 1111H Sources and Materials for Editing Medieval Texts.
• An approved editorial project, which can be a paper for a course in any of the collaborating departments, an independent publishable project, or the student’s dissertation.

Course List

English
ENG 1093H The Medieval Vernacular Book

Italian Studies
ITA 1165H Introduction to Italian Philology
ITA 1170H Textual Criticism and the Editing of Early Italian Texts

Medieval Studies
MST 1000Y Introductory Medieval Latin
MST 1101H Codicology (PR)
MST 1104H Latin Palaeography I (PR)
MST 1105H Latin Palaeography II (PR)
MST 1107H Latin Textual Criticism (PR)
MST 1110H Diplomatics and Diplomatic Editing (PR)
MST 1111H Sources and Materials for Editing Medieval Texts (PR)
MST 1113H Vernacular Text-Editing: A Collaborative Project
MST 1115H English Palaeography (PR)
MST 1384H The Exeter Book of Old English Verse (PR)
MST 1385H Theory and Practice in Editing of Old English Texts I (PR)
MST 1392H Editing and Appreciating Wulfstan’s Prose (PR)
MST 3230H The Common Law of Medieval Europe

Music
MUS 1063H Musical Notation of the Middle Ages
Program Committee
Magee, John - BA, MA, PhD - Classics
Robins, William - BA, MPhil, PhD - English
Meyerson, Mark - BA, MA, PhD - History
Lettieri, Michael - BA, MA, PhD - Italian Studies
Andree, U.O. Alexander - BA, PhD - Medieval Studies
Orchard, Andrew - BA, MA, PhD - Medieval Studies
Townsend, David Robert - BA, MA, PhD - Medieval Studies
Bowen, William - BA, BMus, MA, PhD - Music
King, Peter - AB, PhD - Philosophy
Goering, Joseph - BA, MAR, MA, MSL, PhD - Religion
Blackmore, Josiah - BA, MA, PhD - Spanish
Environment and Health

Lead Faculty
Arts and Science

Participating Degree Programs
- Geography – MA, MSc, PhD
- Medical Science – MSc, PhD
- Planning – MScPl, PhD
- Public Health Sciences – MHSc, MSc, PhD
- Women and Gender Studies – MA

Overview
The graduate degree programs listed above participate in the Environment and Health (EH) Collaborative Program. The health implications of human impacts on the environment cover a very broad range of issues including air and water quality, contaminated land, and shifts in the distribution of vector-borne diseases (related to changes in land use, climate, and human migration). The EH collaborative program provides students in the health sciences with a broad environmental perspective while at the same time exposes environmental studies students to the health implications of environmental quality. This program may also be of interest to students who are concerned with sociological and policy approaches to the field of environment and health.

Students who complete the collaborative program receive the following notation on their transcripts: "Completed the Collaborative Program in Environment and Health".

Contact and Address
Web: www.environment.utoronto.ca/Graduate/Programs/EnvironmentHealthCollaborativeProgram.aspx
E-mail: centre.environment@utoronto.ca
Telephone: (416) 978-3475
Fax: (416) 978-3884

Centre for Environment
University of Toronto
Earth Sciences Centre
Room 1016V, 33 Willcocks Street
University of Toronto
Toronto, Ontario M5S 3E8
Canada

Master’s Level and Doctoral Level

Admission Requirements

- Students who wish to enrol in the EH Collaborative Program offered by the Centre for Environment must first apply to and be accepted into a master’s or doctoral program in a degree granting unit, also called a “home department.” Information about applying to a home department can be found at the School of Graduate Studies Web site: www.sgs.utoronto.ca.
- Prospective students who are planning to enrol in the EH Collaborative Program are strongly encouraged to submit copies of the documents indicated on the Centre’s Web site by the application deadline established by the home department. Please contact the home department to which you intend to apply in order to confirm its application deadline. The Centre for Environment also allows potential students to enrol in its EH Collaborative Program beyond the deadline set by their home department.

Program Requirements

- Students must complete the requirements below in addition to the degree requirements of their home departments. Typically, students complete up to 1.0 full-course equivalent (FCE) and conduct research on an environmental topic. Specific collaborative program requirements for each participating degree program are listed on the Centre’s Web site under the Environment and Health Collaborative Program.

Master’s Degrees

- Complete the core course ENV 4001H (0.5 FCE).
- Complete one elective half-course (0.5 FCE) from the list of approved electives below.
- For degree programs that require a thesis or research project, the topic should be within the field of environment and health, as approved by the home department and the collaborative program committee. A copy of the final thesis or project must be submitted to the Centre for Environment.

PhD Degrees

- Complete the core course EN V4001H (0.5 FCE), unless already completed at the master’s level.
- Complete one elective half-course (0.5 FCE) from the list of approved electives below.
- Present a seminar either in the Environment and Health Seminar Series or at the Centre for Environment’s research day.
- Complete a thesis on a theme in environment and health. The thesis committee membership will include a supervisor (from the student’s home department who is a member of the core faculty of the collaborative program and a member of the graduate faculty in the Centre for Environment) and at least one other member from a collaborating unit. A copy of the final thesis must be submitted to the Centre for Environment.
Course List

The Centre for Environment offers individual credit courses that are open to graduate students from all parts of the university, subject to enrolment limits. With the exception of the core course, not all courses are offered every year. Graduate students enrolled in the Environment and Health Collaborative Program are also allowed to take elective courses listed under Environmental Studies Collaborative Program toward completing their Environment and Health Collaborative Program requirements (these are listed under Environmental Studies Collaborative Program in this Calendar).

Core Course
ENV 4001H Graduate Seminar in Environment and Health

Elective Courses
CHL 5416H Environmental Epidemiology
CHL 5903H Environmental Health
CHL 5916H Environmental Health Policy
ENV 1703H Water Resources Management and Policy
ENV 1704H Environmental Risk Analysis and Management
ENV 3000H Special Topics—Environmental and Health
ENV 4002H Environment and Health of Vulnerable Populations
GGR 1504H Health, Place and Difference
JGE 1212H Fate of Contaminants in the Environment
JNC 2503H Environmental Pathways
JNP 1014Y Interdisciplinary Toxicology
JNP 1016H Graduate Seminar in Toxicology
JPG 1421H Health in Urban Environments
TPS 1837H Environmental Health, Transformative Higher Education and Policy Changes

Program Committee
Cunningham, Hilary - BA, MA, PhD - Anthropology, Environment
Stefanovic, Ingrid - BA, MA, PhD - Environment (Director)
Wiseman, Clare - BS, MSc, PhD - Environment
Daniere, Amrita - AB, MPP, PhD, MCIP - Geography
Maclaren, Virginia - BA, MRP, MSc, PhD, MCIP - Geography
Rotstein, Ori - MSc, MD, FRCS - Medical Science
Rankin, Katharine - BA, MRP, PhD - Planning
Mandel, Jack - PhD, MPH – Public Health Sciences
McElhinny, Bonnie - BA, MA, PhD – Women & Gender Studies
Environmental Engineering

Lead Faculty
Applied Science and Engineering

Participating Degree Programs
Chemical Engineering and Applied Chemistry – MASc, MEng, PhD
Civil Engineering – MASc, MEng, PhD
Mechanical and Industrial Engineering – MASc, MEng, PhD
Material Science and Engineering – MASc, MEng, PhD

Overview
The Environmental Engineering Collaborative Program (EECP) is an interdisciplinary collaborative program designed for students interested in taking a concentration of courses and conducting research in environmental engineering. It is open to MASc, MEng, and PhD students in the collaborating graduate programs listed above in the Faculty of Applied Science and Engineering.

About 50 full-time faculty members in these departments carry out advanced research and teach postgraduate courses in a wide range of environmental engineering specialties.

The Collaborative Program is administered and coordinated by the Division of Environmental Engineering and Energy Systems in conjunction with the participating departments and the Centre for Environment.

Students who complete the EECP program requirements will obtain the following statement on their transcript: “Completed Collaborative Program in Environmental Engineering”.

Contact and Address
Web: www.energy.engineering.utoronto.ca
E-mail: eep@ecf.utoronto.ca
Telephone: (416) 978-3532
Fax: (416) 946-7632

Environmental Engineering Collaborative Program
Division of Environmental Engineering and Energy Systems
University of Toronto
Galbraith Building
Room 1015, 40 St. George Street
University of Toronto
Toronto, Ontario M5S 2E4
Canada

Master's Level

Admission Requirements
• Students who wish to enrol in the Collaborative Program must first apply to and be accepted into a master’s program in one of the collaborating departments. (See the departmental entries in this calendar for details on admission requirements and degree programs.) Students should generally apply to the department that most closely matches their undergraduate degree.
• Once a student has registered in one of the collaborating departments, he or she may apply to and enrol in the EECP; this should be done no later than the end of the first session of study.
• Application forms for the collaborative program are available from the Division or any of the collaborating departments.

Program Requirements
• Degree requirements include course work and generally a research thesis or project, with details varying among the collaborating departments (see the departmental entries in this calendar).
• Graduate courses and research are available in a wide range of environmental engineering specialties offered by the collaborating departments. Many additional courses relevant to environmental engineering are offered by the Centre for Environment. See the calendar entries for the collaborating departments and the Centre for Environment for lists of courses. More detailed information on faculty, areas of research, and courses is available on the Division's Web site.
• The EECP requirements are:
  o Completion of a concentration of study in environmental engineering as demonstrated in course work and, where it is part of the degree requirement, a thesis or project. This is generally met through the student’s home department degree requirements.
  o Completion of one non-engineering course with substantial interdisciplinary content and student interaction that is related to the environment but is outside the student’s technical field. A list of approved courses is available on the Division’s Web site.
  o Participation in EDE 3000H, the Environmental Engineering Research Seminar Series, for at least two sessions. This is mandatory for MASc students and recommended for MEng students.
Collaborative Programs

Doctoral Level

Admission Requirements

- Students who wish to enrol in the Collaborative Program must first apply to and be accepted into a doctoral program in one of the collaborating departments. (See the departmental entries in this calendar for details on admission requirements and degree programs.) Students should generally apply to the department that most closely matches their undergraduate or master's degree.
- Once a student has registered in one of the collaborating departments, he or she may apply to and enrol in the EECP; this should be done no later than the end of the first session of study.
- Application forms for the collaborative program are available from the Division or any of the collaborating departments.

Program Requirements

- Degree requirements include course work and generally a research thesis or project, with details varying among the collaborating departments (see the departmental entries in this calendar).
- Graduate courses and research are available in a wide range of environmental engineering specialties offered by the collaborating departments. Many additional courses relevant to environmental engineering are offered by the Centre for Environment. See the calendar entries for the collaborating departments and the Centre for Environment for lists of courses. More detailed information on faculty, areas of research, and courses is available on the Division’s Web site and from the Division.
- The EECP requirements are:
  - Completion of a concentration of study in environmental engineering as demonstrated in course work and, where it is part of the degree requirement, a thesis or project. This is generally met through the student’s home department degree requirements.
  - Completion of one non-engineering course with substantial interdisciplinary content and student interaction that is related to the environment but is outside the student’s technical field. A list of approved courses is available on the Division’s Web site.
  - Participation in EDE 3000H, the Environmental Engineering Research Seminar Series, for at least two sessions.

Program Committee

Kirk, Donald - BASc, MASc, PhD, PEng - Chemical Engineering & Applied Chemistry
Adams, Barry - BSc, MS, PhD - Civil Engineering
Karney, Bryan - BASc, MEng, PhD, PEng - Civil Engineering (Director)
Utigard, Torstein - BSc, MASc, PhD, PEng - Materials Science & Engineering
Bussmann, Markus - BASc, MASc, PhD - Mechanical & Industrial Engineering
Environmental Studies

Lead Faculty
Arts and Science

Participating Degree Programs
Adult Education and Community Development – MA, MEd, PhD
Anthropology – MA, MSc, PhD
Chemical Engineering and Applied Chemistry – MASC, MEng, PhD
Chemistry – MSc, PhD
Counselling Psychology – MA, MEd, EdD, PhD
Ecology and Evolutionary Biology – PhD
Economics – MA
Forestry – MScF, MFC, PhD
Geography – MA, MSc, PhD
Geology – MASC, MSc, PhD
Information – MI
Information Studies – PhD
Management – MBA, PhD
Philosophy – MA, PhD
Physics – MSc, PhD
Planning – MSCP, PhD
Political Science – MA, PhD
Religion – MA, PhD
Sociology – MA, PhD
Sociology in Education – MA, MEd, EdD, PhD
Women and Gender Studies – MA

Overview
The graduate programs listed above participate in the Environmental Studies (ES) Collaborative Program which is offered through the Centre for Environment (CFE) at the University of Toronto. Graduate students admitted to a participating “home” department can apply to the Collaborative Program and pursue course work and research in environmental areas. The Centre currently has graduate students from across the disciplinary spectrum.

The Centre offers a unique and comprehensive program of graduate study. By utilizing the University’s extensive library holdings and faculty resources, it offers one of North America’s most engaging and cross-disciplinary programs in the environment. One of the compelling strengths of the Centre’s program is the interdisciplinary environment in which teaching and research is conducted. For example, in its core courses, professors from the humanities team teach with faculty from the social sciences, engineering, biology, and chemistry. Students are both able to specialize in an area of environmental research and gain exposure to a wide range of intellectual and methodological disciplines focused on environmental issues.

Students who complete the collaborative program receive the following notation on their transcripts: “Completed Collaborative Program in Environmental Studies.”

Contact and Address
Web: www.environment.utoronto.ca/Graduate/Programs/EnvironmentalStudiesCollaborativeProgram.aspx
E-mail: centre.environment@utoronto.ca
Telephone: (416) 978-3475
Fax: (416) 978-3884

Centre for Environment
University of Toronto
Earth Sciences Centre
Room 1016V, 33 Willcocks Street
Toronto, Ontario M5S 3E8
Canada

Master’s Level and Doctoral Level

Admission Requirements
• Students who wish to enrol in the Environmental Studies (ES) Collaborative Program offered by the Centre for Environment must first apply to and be accepted into a master’s or doctoral program in a degree granting unit, also called a “home department.” Information about applying to a home department can be found at the School of Graduate Studies Web site: www.sgs.utoronto.ca.
• Prospective students are strongly encouraged to submit copies of the documents indicated on the Centre’s Web site by the application deadline established by the home department. Please contact the home department to which you intend to apply in order to confirm its application deadline. The Centre for Environment also allows potential students to enrol in its ES Collaborative Program beyond the deadline set by their home department.

Program Requirements
• Students must complete the requirements below in addition to the degree requirements of their home departments. Typically, students complete up to 1.0 full-course equivalent (FCE) and conduct research on an environmental topic. The Centre also offers students in non-thesis master’s degree stream the opportunity to complete an internship in fulfillment of the collaborative program. Specific collaborative program requirements for each participating degree program are listed on the Centre’s Web site under the Environmental Studies Collaborative Program.

Master’s Degrees
• Complete the core course ENV 1001H (0.5 FCE).
• Complete internship of approximately three months (ENV 4444Y – 1.0 FCE).
• Produce a research paper related to the internship (ENV 5555Y – 1.0 FCE).
Collaborative Programs

**Master's Thesis Option**
- Complete the core course ENV 1001H (0.5 FCE).
- Complete one half-course elective (0.5 FCE).
- Write a thesis on an environmental topic.

**PhD Degrees**
- Complete the core course ENV 1001H (0.5 FCE), unless already completed at the master's level.
- Complete one half-course elective (0.5 FCE).
- Complete a thesis on an environmental topic in the home department.
- Present a seminar on thesis research, either in the Centre's seminar series or at the Centre for Environment Research Day.
- Additional courses may be required by the home department and/or by the supervisor or supervisory committee, depending on academic and/or career goals of the student, as well as departmental regulations.
- A supervisor or supervisory committee may be appointed for each student by the home department and the Centre for Environment.

**Course List**
The Centre for Environment offers individual credit courses that are open to graduate students from all parts of the University, subject to enrolment limits. With the exception of the core course, not all courses are offered every year. Graduate students enrolled in the Environmental Studies Collaborative Program are also allowed to take elective courses listed under the Environment and Health Collaborative Program toward completing their Environmental Studies Collaborative Program requirements (these are listed under Environmental Health Collaborative Program in this Calendar).

**Core Course**
ENV 1001H Environmental Decision Making

**CFE Elective Courses**
- ENV 1002H Environmental Policy
- ENV 1004H Urban Sustainability
- ENV 1005H Business and Environmental Politics
- ENV 1008H Worldviews and Ecology
- ENV 1444H Capitalist Nature
- ENV 1701H Environmental Law
- ENV 1707H Environmental Finance and Sustainable Investing
- ENV 1410H Analytical Environmental Chemistry
- ENV 2000H, Y Topics in Environmental Studies
- ENV 2002H Special Topics—Environmental Studies
- ENV 4444Y+ Internship
- ENV 5555Y+ Research Paper

**Other Elective Courses**

**Adult Education and Counselling Psychology**
- AEC 1104H Community Education and Organizing
- AEC 1131H Special Topics in Adult Education (Master's): Environmental Adult Education
- AEC 1160H Introduction to Transformative Learning Studies
- AEC 1178H Practitioner/Ecological Identity and Reflexive Inquiry
- AEC 3176H Sense of Place in Professional and Natural Contexts

**Chemical Engineering and Applied Chemistry**
- JNC 2503H Environmental Pathways

**Forestry and Social Work**
- JFS 1460H Community Based Natural Resource Management

**Geography**
- JGE 1413H Environmental Impact Assessment
- JGE 1420H Urban Waste Management
- JGE 1609H Cities, Industry and Environment
- GGR 1214H Global Ecology and Biogeochemical Cycles

**Geography and Planning**
- JPG 1404H Issues in Global Warming
- JPG 1407H Efficient Use of Energy
- JPG 1408H Carbon-Free Energy
- JPG 1414H Cities as Ecosystems
- JPG 1419H Aboriginal/Canadian Relations in Environment and Resource Management

**History**
- HIS 1111H Topics in North American Environmental History

**Mechanical and Industrial Engineering**
- JEI 1901H Technology, Society, and the Environment I
- JEI 1902H Technology, Society, and the Environment II

**Political Science**
- JPV 1201H Politics, Bureaucracy, and the Environment

**Philosophy**
- JVP 2147H Environmental Philosophy

**Sociology and Equity Studies in Education**
- SES 1909H Eco-Sociology

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered
**Program Committee**

Laiken, Marilyn - BA, MA, PhD - Adult Education & Counselling Psychology
Boddy, Janice - BA, MA, PhD - Anthropology
Cunningham, Hilary - BA, MA, PhD - Anthropology, Environment
Reeve, Douglas - BSc, MASc, PhD, PEng - Chemical Engineering & Applied Chemistry
Morris, Robert - BSc, PhD - Chemistry
Rowe, Locke - BSc, MSc, PhD - Ecology and Evolutionary Biology
Hosios, Arthur - BEng, MA, MEng, PhD - Economics
Stefanovic, Ingrid - BA, MA, PhD - Environment (Director)
Tattersall Smith, C. - BA, MS, PhD - Forestry
Daniere, Amrita - AB, MPP, PhD, MCIP - Geography
Cruden, Alexander - BSc, PhD - Geology
Mai, Jens-Erik - BA, MLIS, PhD - Information
Martin, Roger - AB, MBA - Management
Boyle, Joseph - BA, PhD - Philosophy
Shepherd, Theodore - BSc, PhD - Physics
Rankin, Katharine - BA, MRP, PhD - Planning
Cameron, David - MSc, BA, PhD - Political Science
Kloppenborg, John - BA, MA, PhD - Religion
Wheaton, Blair - BA, MA, PhD - Sociology
Dehl, Kari - BA, MA, PhD - Sociology and Equity Studies in Education
McElhinny, Bonnie - PhD - Women & Gender Studies
Collaborative Programs

Ethnic and Pluralism Studies

Lead Faculty
Arts and Science

Participating Degree Programs
Anthropology – MA, PhD
European, Russian and Eurasian Studies – MA, PhD
Educational Administration – MA, MEd, EdD, PhD
Geography – MA, PhD
History – MA, PhD
History and Philosophy of Education – MA, MEd, EdD, PhD
Industrial Relations and Human Resources – MIRHR, PhD
Nursing Science – MN, PhD
Political Science – MA, PhD
Religion – MA, PhD
Social Work – MSW, PhD
Sociology – MA, PhD
Sociology in Education – MA, MEd, Ed, PhD
Women and Gender Studies – MA, PhD

Overview
The graduate programs listed above participate in the Ethnic and Pluralism Studies Collaborative Program at the University of Toronto. Participating graduate units in the program contribute courses and provide facilities and supervision for graduate research. Upon successful completion of the requirements, students receive the notation “Completed Collaborative Program in Ethnic and Pluralism Studies” on their transcripts, in addition to the master’s or doctoral degree in their departmental area.

Contact and Address
Web: www.utoronto.ca/ethnicstudies
E-mail: ethnic.studies@utoronto.ca
Telephone: (416) 978-4783
Fax: (416) 978-3963
Collaborative Program in Ethnic and Pluralism Studies
Department of Sociology
University of Toronto
725 Spadina Avenue
Toronto, Ontario M5S 2J4
Canada

Master's Level

Admission Requirements
• Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating graduate units.
• Applicants to the Master of Arts, Master of Industrial Relations and Human Resources, Master of Nursing, Master of Science, Master of Social Work are accepted by the participating graduate unit under the general regulations.

Program Requirements
• Students must follow a program of studies acceptable to both the participating graduate unit and the Ethnic and Pluralism Studies Program.
• Collaborative program requirements may be met concurrent with, or in addition to, departmental requirements. Students should consult specific departmental listings for information.
• 1.0 full-course equivalent (FCE) in ethnicity, of which at least 0.5 FCE will be in a discipline other than the one in which the student is enrolled. Normally, these courses are taken as options within regular departmental or faculty degree requirements, not as additional courses.
• A coordinating 0.5 FCE seminar in ethnicity. The seminar is the place to discuss, compare, and bring together the various approaches to the study of ethnicity. As well, students will be expected to present and discuss their projects.
• When a practicum is required, it will focus on ethnicity.
• It is understood that the major paper or thesis as required by the graduate unit will be in an ethnic studies area.

Doctoral Level

Admission Requirements
• Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating graduate units.
• Applicants to the Doctor of Philosophy degree program are accepted under the general regulations.

Program Requirements
• Students must follow a program of studies acceptable to both the participating graduate unit and the Ethnic and Pluralism Studies Program.
• Collaborative program requirements may be met concurrent with, or in addition to, departmental requirements. Students should consult specific departmental listings for information.
• 2.0 full-course equivalents (FCE) in ethnicity, including master’s-level courses, of which at least 1.0 will
be in disciplines other than the one in which the student is enrolled. Normally, these courses are taken as options within regular departmental or faculty degree requirements, not as additional courses.

- A coordinating 0.5 FCE seminar in ethnicity. The seminar is the place to discuss, compare, and bring together the various approaches to the study of ethnicity. As well, students will be expected to present and discuss their projects. Students who have taken this course for the master's degree need not repeat it.
- When the student’s graduate unit requires more than one comprehensive examination, one of the examinations will be in ethnicity.
- When there are no comprehensive examinations, but an examination on the thesis proposal is required, the examination will focus on ethnicity, and in all cases the thesis will be on subject matter dealing with ethnicity.
- The PhD thesis will focus on ethnicity. The supervisor of the thesis committee will be a specialist in the area of ethnicity.

### Course List

1. Courses eligible for credit toward meeting program requirements in Ethnic and Pluralism Studies are listed below.
2. Students should check with the professor responsible for each course since a prerequisite may be required.
3. Not all courses are offered each year. Please consult the Program office or the appropriate graduate unit for course availability.
4. Students wishing to use courses other than those listed below for credit toward meeting program requirements must submit a formal request in writing.

#### Coordinating Seminar

- JTH 3000H Ethnic Relations Theory, Research, and Policy

#### Anthropology

- ANT 6003H Critical Issues in Ethnography I
- ANT 6004H Critical Issues in Ethnography II
- ANT 6034H Advanced Research Seminar IV (Ethnicity)
- ANT 6040H Approaches to Field Work I
- ANT 6041H Approaches to Field Work II
- ANT 6050H Reading Course in Specific Area and Theory I

#### Economics

- ECO 2800H Labour Economics I (Prerequisite: an undergraduate course in statistics and a graduate course in applied statistics.)

#### European, Russian, and Eurasian Studies

- ERE 1188H Identity, Ethnicity, and Cultural Change in Eastern Europe

#### Geography

- PLA 1503H Planning and Social Policy
- JPG 1505H The Multicultural City: Diversity, Policy, and Planning
- JPG 1506H State/Space/Difference: Understanding the New Social Geography
- GGR 1712H Historical Geography of Ethnic Groups in Canada

#### History

- HIS 1102H Spiritual Invasion: Natives of the Americas Confront Christianity
- HIS 1120H Topics in Aboriginal/Non-Aboriginal Relations in Canada
- HIS 1164H Irish Migration to Canada: Sources and Methods
- HIS 1166H Immigrants, Minorities, and the Racialized Other: Canada in a Comparative Context (Prerequisite: any previous course in the history of Canada)
- HIS 1274H The Nazis, Occupied Europe, and the Jews
- HIS 1287H Polish Jews Since the Partitions of Poland (joint graduate/undergraduate)
- HIS 1297H Problems of National Survival in Eastern Europe Since 1848
- HIS 1528H Crossing Boundaries: Race, Ethnicity, Class, and Gender in America, 1880-1930
- HIS 1545H Race, Segregation and Protest: South Africa and the United States

#### Industrial Relations and Human Resources

- IRE 3630H Workplace Diversity and Inclusivity

#### Law

Participation in LAW courses is at the discretion of the Faculty of Law upon presentation, to the Faculty of Law Records Office, of a signed permission form from the student’s home department. Note that preference is given to JD students and that many law courses are full by the end of the Faculty of Law add/drop period.

- LAW 117H Introduction to Islamic Law
- LAW 261H Citizenship: Inside and Out
- LAW 370H Aboriginal and Treaty Rights in Canada
- LAW 410H Discrimination Law: Equality in the Private Sector
- LAW 456H Canadian Migration Law
- LAW 547H Law of Forced Migration

#### Nursing Science

- NUR 1013H Transcultural Health Care Issues
- NUR 1014H Politics of Aboriginal Health
- NUR 1068H Youth and Mental Health Promotion

#### Political Science

- POL 2001Y Problems of Political Community
- POL 2026H Topics in Political Thought I: Nationalism and Political Philosophy
- POL 2038Y Problems of Pluralism and Equality
- POL 2127H Canadian Theories of Multiculturalism
Collaborative Programs

**POL 2321H** Topics in Comparative Politics I: Citizenship and Immigration in Europe and North America

**POL 2324H** Ethnonationalism and State-Building: The Communist and Post-Communist Experience

**POL 2413Y** Politics, Culture, and Identity in Southeast Asia

**Religion**

**RLG 2037H** Religion and Healing

**RLG 3236H** Religious Pluralism and the Church

**RLG 3512H** Introduction to Islamic Law

**RLG 3931H** Topics in North American Religions

**Social Work**

**SWK 4210H** Promoting Empowerment: Working at the Margins

**SWK 4304H** Globalization and Trans-nationalization: Social Work Responses Locally and Globally

**SWK 4617H** Cross-Cultural Social Work Practice

**SWK 4658H** Social Work with Immigrants and Refugees

**SWK 4801H** Special Studies I

**SWK 4802H** Special Studies II

**Sociology**

**SOC 6002H** Immigration I: Contemporary International Migration

**SOC 6003H** Immigration II: Sociology of Immigration, Ethnicity and Employment

**SOC 6009H** Ethnicity I

**SOC 6016H** Social Demography I

**SOC 6109H** Ethnicity II

**SOC 6116H** Social Demography II

**Sociology and Equity Studies in Education**

**SES 1921Y** The Principles of Anti-Racism Education

**SES 1926H** Race, Space and Citizenship: Research Methods

**SES 1952H** Language, Culture, and Education

**SES 3933H** Theorizing Transnationality: Feminist Perspectives

**JSA 5147H** Language, Nationalism and Post-Nationalism

**Theory and Policy Studies in Education**

**TPS 1029H** Special Topics in Educational Administration: Multicultural and Diversity Politics in Comparative Perspective

**TPS 1042H** Educational Leadership and Cultural Diversity

**TPS 1428H** Immigration and the History of Canadian Education

**TPS 1429H** Ethnicity and the History of Canadian Education

**TPS 3042H** Field Research in Educational Administration

**TPS 3428H** Minority Concerns and Education in Canadian History: Selected Topics

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**Program Committee**

Levin, Michael - BA, MA, PhD - Anthropology

Baker, Michael - BCom, MA, PhD, Royal Bank Chair in Public and Economic Policy - Economics

Mahtani, Minelle - BA, PhD - Geography

Iacovetta, Franca - BA, MA, PhD - History

Weiner, Nan - BSB, MA, PhD - Industrial Relations & Human Resources

Macklin, Audrey - BA, LLB, LLM - Law

Gastaldo, Denise - BSN, MA, PhD - Nursing Science

Kopstein, Jeffrey - PhD, MA, BA - Political Science

Forbes, Donald - BA, MA, PhD - Political Science

Mittermaier, Amira - MA, PhD - Religion

Reitz, Jeffrey - BS, PhD, FRSC, Robert F. Harney

Professor of Ethnic, Immigration & Pluralism Studies - Sociology (Director)

Fong, Eric - BA, MA, PhD - Sociology

Razack, Sherene - BA, MA, PhD - Sociology and Equity Studies in Education

Sakamoto, Izumi - BA, MA, MSW, MS, PhD - Social Work

Troper, Harold - BA, MA, PhD - Theory & Policy Studies in Education

McElhinny, Bonnie - PhD - Women & Gender Studies
Genome Biology and Bioinformatics

Lead Faculty
Medicine

Participating Degree Programs
Biochemistry – PhD
Biomedical Engineering – PhD
Cell and Systems Biology – PhD
Chemical Engineering and Applied Chemistry – PhD
Computer Science – PhD
Ecology and Evolutionary Biology – PhD
Laboratory Medicine and Pathobiology – PhD
Medical Biophysics – PhD
Medical Science – PhD
Molecular Genetics – PhD

Overview
The recent elucidation of the genomes of many organisms has led to the appreciation that our knowledge of the function of the proteome and other "omes" of any given organism is far from complete. A wide range of computational, theoretical, biochemical, structural, cell biological and genetic approaches need to cooperate to establish the connections between sequence, structure and function. The Collaborative Program in Genome Biology and Bioinformatics addresses this need for co-operation with a coherent course of study that educates and trains doctoral graduate students across these diverse disciplines. The program serves as a model for a content-driven, trans-departmental unit that responds to the University's need to adapt to cutting-edge scientific developments.

The graduate programs listed above participate in the Collaborative Program in Genome Biology and Bioinformatics. Upon successful completion of the Ph.D. requirements of the host department and the program, students receive the notation "Completed Program in Genome Biology and Bioinformatics " on their transcript.

Contact and Address
Web: www.GBB.utoronto.ca
E-mail: rob.reedijk@utoronto.ca
Telephone: (416) 978-0774

Mr. Rob Reedijk
Administrative Coordinator
Collaborative Program in Genome Biology and Bioinformatics
Department of Biochemistry
University of Toronto
Room 5207, Medical Sciences Building
Toronto, Ontario M5S 1A8
Canada

Doctoral Level

Admission Requirements
• Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments. Since this is a PhD program, students must be registered in the doctoral program of one of the host departments and must be undertaking research with a significant genome biology and/or bioinformatics component under the supervision of a member of the program.

Program Requirements
• Complete a PhD thesis and any core courses as required by the student's host department.
• Complete the interdepartmental courses or alternates (one of JBB 2026H/JBZ 1472H/JTB 2010H/ EEB 1460H; and one of BME 1458H/CSC 2417H/CSC 2418H/CSC 2515H/JTB 2020H). These courses may be taken in place of some host department courses after a student obtains written permission from the host department.
• Participate in the seminar series and participate in collaborative traineeships in which an aggregate time of two to four months is spent in a collaborating laboratory, thematically working on an aspect of the thesis project but with a complementary method. The goal of the collaborative traineeship is ideally a joint publication between the two member labs.

Course List
Students should take one genome biology/"omics" course (Group I) and one computational biology/bioinformatics course (Group II) from the following:

Group I
EEB 1460H Molecular Evolution
JBB 2026H Protein Structure, Folding and Design
JBZ 1472H Computational Genomics and Bioinformatics
JTB 2010H Proteomics and Functional Genomics

Group II
BME 1458H Pattern Discovery Methods for Biomedical Engineering
CSC 2417H Algorithms for Genome Sequence Analysis
CSC 2418H Computational Structural Biology
CSC 2515H Machine Learning
JTB 2020H Applied Bioinformatics
Collaborative Programs

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**Program Committee**

Steipe, Boris - MD, PhD - Biochemistry  
Yip, Christopher - BASc, MSc, PhD, PEng, Canada  
  Research Chair - Biomaterials & Biomedical Engineering,  
Mahadevan, Radhakrishnan - BTech, PhD - Chemical Engineering & Applied Chemistry  
Provart, Nicholas - BSc, MSc, PhD - Cell & Systems Biology (Director)  
Brudno, Michael (Mikhail) - BA, MSc, PhD - Computer Science  
Chang, Belinda - BA, PhD, Canada Research Chair - Ecology & Evolutionary Biology  
Adeli, Khosrow - DIPCHEM, MSc, PhD - Laboratory Medicine & Pathobiology  
Tillier, Elizabeth - PhD - Medical Biophysics  
Stanford, William - BA, PhD, Canada Research Chair in Stem Cell Biology & Functional Genomics - Medical Science  
Emili, Andrew - BSc, MSc, PhD - Molecular Genetics
**Geology and Physics**

**Lead Faculty**

Arts and Science

**Participating Degree Programs**

Geology – MSc, PhD
Physics – MSc, PhD

**Overview**

The graduate programs listed above participate in the Collaborative MSc and PhD Programs in Geology and Physics. These programs foster graduate education in those areas of study that overlap traditional departmental boundaries.

Students who successfully complete the requirements of the collaborative program will receive the notation “Completed Collaborative Program in Geology and Physics” on their transcript.

**Contact and Address**

E-mail: bailey@geology.utoronto.ca
Telephone: (416) 978-3231
Fax: (416) 978-7606

Collaborative Program in Geology and Physics
c/o R. C. Bailey
University of Toronto
McLennan Physical Laboratories
Room 501, 60 St. George Street
Toronto, Ontario M5S 1A7
Canada

**Program Requirements**

- Students must meet all respective degree requirements of the School of Graduate Studies, the home department, and the collaborative program.
- The MSc research, thesis, and thesis defence requirements are the same as those of the home department.
- The MSc will normally require work equivalent to 5.5 FCE as follows:
  o The core course GLG 1101H (0.5 FCE)
  o Two lecture courses in Geology (1.0 FCE)
  o Two lecture courses in Physics (1.0 FCE)
  o A supervised research project in the field of geophysics or the overlap area of physics and geology (3.0 FCE)
- The supervised research project and associated report or thesis will be completed under the regulations of the home department.
- Students are expected to attend the regular seminar series of both the Geology Department and the Geophysics Lab in the Physics Department and to participate in the graduate student seminar programs of both the Geology Department and the Geophysics Lab.
- Program requirements are normally completed within 12 months of entry to the program.

**Doctoral Level**

**Admission Requirements**

- Applicants who wish to enrol in the collaborative program must apply to and be admitted to both a graduate degree program in one of the collaborating departments, this being either Geology or Physics, and to the collaborative program. Note that MSc students enrolled in Option I in Physics or in the course-only option in Geology are not eligible to enrol in the collaborative program.
- Applicants must submit a supplementary brief application form, available from either home department or the collaborative program office, to the collaborative program Director.
- Normal deadlines for application to the School of Graduate Studies apply. Students who have already been admitted to one of the two home departments may apply to the collaborative program until October 1.

**Program Requirements**

- Students must meet all respective degree requirements of the School of Graduate Studies, the home department, and the collaborative program.
- The PhD research, thesis, and thesis defence requirements are the same as those of the home department.
- The lecture course requirements are the Geology graduate seminar course in addition to the course requirements of the home department, and at least
Collaborative Programs

1.0 (FCE) in the non-home department.
- The student's research supervisor will normally be a faculty member in the student's home department, unless an explicit exception is approved by both departments.

Program Committee
Bailey, Richard - BSc, PhD - Geology and Physics
(Director)
Pysklywec, Russell - BSc, PhD - Geology
Shepherd, Theodore - BSc., PhD - Physics
Global Health

Participating Degree Programs
- Anthropology – PhD
- Health Policy, Management and Evaluation – PhD
- Law – SJD
- Nursing Science – PhD
- Pharmaceutical Science – PhD
- Political Science - PhD
- Public Health Sciences – PhD
- Rehabilitation Science – PhD

Overview
The graduate programs listed above participate in the Collaborative Doctoral Program in Global Health. This program offers doctoral students the opportunity to develop cooperative and interdisciplinary graduate education and research in global health. We view global health as an integrative construct that focuses on the inter-relationships between local, regional, national, and international factors influencing health and effective interventions and policies that will address these factors. This collaborative program enhances the student experience by offering a broad base of faculty expertise and an opportunity to share research ideas and results from multiple disciplinary perspectives. The Collaborative Doctoral Program in Global Health signals the University's commitment to improving the well-being of people in Canada and around the world through higher education and advanced research in global health.

Student research is supervised by a member of the graduate faculty in the home unit. Normally students in the collaborative program are supervised by a member of the collaborative program's core faculty, or have a core faculty member serve on the supervisory committee. The home unit shall recommend the granting of the degree. With the approval of the Collaborative Program Director, upon completion of the program requirements, the designation "Completed the Collaborative Graduate Program in Global Health" shall be shown on the transcript.

Doctoral Level

Admission Requirements
- Applicants must meet the admission requirements of both the home graduate program in which they are registered as well as the collaborative program.
- Applicants must be admitted to a doctoral program in one of the home departments before they may apply to the Collaborative Doctoral Program in Global Health.

Program Requirements
- Meet all the degree requirements of the School of Graduate Studies, the home graduate unit, and the Collaborative Doctoral Program in Global Health.
- Successfully complete:
  - NUR 1083H Comparative Politics of Health and Health Policy in a Globalizing World
  - one elective (outside of the home department) selected from the list below
  - participation in 0.5 full-course equivalent (FCE) global health research seminar series for the equivalent of two academic years
  - a thesis on an issue related to global health, to be approved by both the home unit and the collaborative program committee

Course List
Not all courses are offered every year. Please refer to the participating graduate units' Web sites for a current list of course offerings.

Core Course
NUR 1083H Comparative Politics of Health Policy in a Globalizing World
(Where possible, this required core course may be taken as an elective within regular departmental degree requirements, not as an additional course.)

Elective Courses

Anthropology
- ANT 6003H Critical Issues in Ethnography I
- ANT 6004H Critical Issues in Ethnography II
- ANT 6023H Governmentality, Development and the Improvement of the World
- ANT 6032H Social Movements: Interrogating Power and Protest in a Global Context

Bioethics
- CHL 5121Y Genomics, Bioethics and Public Policy
- MSC 3003Y Empirical Approaches to Bioethics
- MSC 3010Y International Research Ethics
- PHL 2146Y Topics in Bioethics
- JHM 1000H Issues Analysis in Interdisciplinary International Health Research

Contact and Address
Web: www.phs.utoronto.ca/PhD_Global_Health.asp
E-mail: cynthia.enriquez@utoronto.ca or Associate Director at lisa.forman@utoronto.ca
Telephone: 416.978.2058
Fax: 416.978.1883 for general inquiries

Collaborative Doctoral Program in Global Health
c/o Department of Public Health Sciences
University of Toronto
6th floor Health Sciences Building
155 College Street
Toronto, Ontario M5T 3M7
Canada
Health Policy, Management and Evaluation
HAD 5768H International Perspectives on Health Services Management
HAD 5770H Program Planning and Evaluation
HAD 5771H Resource Allocation Ethics
HAD 5774H Comparative Health Care Systems

Law
Participation in LAW courses is at the discretion of the Faculty of Law upon presentation, to the Faculty of Law Records Office, of a signed permission form from the student's home department. Note that preference is given to JD students and that many law courses are full by the end of the Faculty of Law add/drop period.
LAW 294H The Law and Praxis of International Human Rights
LAW 301H Women's Rights in International Law
LAW 386H Reproductive and Sexual Health Law
LAW 388H Public Health Law
LAW 576H Can there be Universal Human Rights

Nursing
NUR 1024H Foundations of Qualitative Inquiry
NUR 1025H Doing Qualitative Research: Design and Data Collection
NUR 1082H Knowledge Production in Nursing and Health
NUR 1083H Comparative Politics of Health Policy in a Globalizing World (required course)

Pharmacy
PHM 1124H The Power and Politics of Global Pharmaceutical Policy
PHM 1125H Complementary/Alternative Medicine: Health System and Policy Issues

Political Science
JPD 2232H International Governance
JPE 2408Y Political Economy of International Development
JPF 2430Y Cities
POL 2205H Topics in International Politics I
POL 2207H Topics in International Politics III
POL 2212Y Canada and the Third World
POL 2217Y Politics of the International System
POL 2226H Ethics and International Relations
POL 2318H Comparative Public Policy: Selected areas
POL 2409Y Politics and Planning in third world Cities

Public Health Sciences
CHL 5115H Qualitative Analysis and Interpretation
CHL 5117H A Global Perspective on the Health of Women and Children
CHL 5118H International Health, Human Rights and Peace-Building
CHL 5411H International Health
CHL 5419H Empirical Perspectives on Social Organization and Health
CHL 5420H Global Health Research
CHL 5421H Aboriginal Health

CHL 5702H History of International Health
CHL 5903H Environmental Health
CHL 7001H History of International Health

Program Committee
Sellen, Daniel - BA, MA, PhD, CRC - Anthropology
Wardlow, Holly - BA, MPH, PhD - Anthropology
Howard, Andrew - MD, MSc, FRCS(C) - Health Policy, Management & Evaluation
Sossin, Lorne - BA, MA, LLB, PhD, LLM, JSD - Law
Gastaldo, Denise - BScN, MA, PhD - Nursing Science
Muntaner, Carles - MD, PhD - Nursing Science
Cohen-Kohler, Jillian - BA, MA, PhD - Pharmaceutical Sciences
Orbinski, James - MA, MSc, MD – Public Health Sciences
Wong, Joseph - BA, MA, PhD, Canada Research Chair - Political Science
Birn, Anne-Emmanuelle - BA, MA, DSc - Public Health Sciences
Cole, Donald C. - MSc, MD - Public Health Sciences
Health Care, Technology and Place

Lead Faculty
Medicine

Participating Degree Programs
Biomedical Engineering – PhD
English – PhD
Health Administration – PhD
Medical Science – PhD
Nursing Science – PhD
Pharmaceutical Sciences – PhD
Public Health Sciences – PhD
Rehabilitation Science – PhD
Social Work – PhD

Overview
The graduate programs listed above participate in the HCTP Collaborative Program. The objectives of the Health Care, Technology and Place (HCTP) Collaborative Program are to:
1. prepare doctoral students to understand, explain, and improve health outcomes associated with geographically-dispersed and technologically-mediated health care;
2. bridge knowledge gaps among doctoral students working in the life sciences, physical sciences, social sciences, and humanities who are concerned with the interconnectedness of bodies, technologies, places, and modes of work in contemporary health care; and
3. provide mentorship in transdisciplinary scholarship, including leadership skills, collaboration, grant writing, and knowledge exchange. Ultimately the goal is to facilitate research conducted by scientifically-informed humanists and philosophically-informed physical and social scientists.
Collaborative programs are administered under the auspices of the School of Graduate Studies. Students who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments. Applicants may apply concurrently to the participating home graduate unit and to the Health Care, Technology and Place Collaborative Program. Students follow a course of study acceptable to both the home unit and the HCTP Collaborative Program.

Contact and Address
Web: www.hctp.utoronto.ca
E-mail: hctp.program@utoronto.ca
Telephone: (416) 978-2067
Fax: (416) 946-5960

Health Care, Technology and Place

Collaborative Program in Health Care, Technology and Place
University of Toronto
155 College Street, Suite 425
Toronto, Ontario M5T 3M6
Canada

Doctoral Level

Admission Requirements
• Applicants must apply to a participating graduate unit and comply with the admission procedures of that unit.
• Applicants must forward the following to the Program Committee of the HCTP Collaborative Program:
  o a copy of the School of Graduate Studies application form submitted to the participating graduate unit;
  o copies of official undergraduate and graduate transcripts from all institutions previously or currently attended, which should reflect a minimum 3.5 GPA (A-);
  o a resume or curriculum vitae;
  o a research plan (maximum 800 words) summarizing research goals and past research experience, the relevance of the HCTP Program to this plan, and justification for the identified HCTP project mentor;
  o two confidential letters of recommendation from scholars familiar with the applicant’s research background and aptitude for the interdisciplinary study;
  o a confidential letter from an HCTP mentor providing: formal agreement to participate on the applicant’s dissertation committee; and commentary written for reviewers outside the discipline, evaluating the applicant’s level of achievement relative to peers in the same discipline, the objectives and methods of the proposed program of research, and the relative merit of such research within the applicant’s home discipline.

Program Requirements
• At least 0.5 HCTP full-course equivalent (FCE);
• Participate actively in the seminar series during their involvement with HCTP;
• Participate in at least one Annual Interdisciplinary Research Workshop.
• Complete a dissertation under the supervision of a core faculty member in the student’s home department. The dissertation must address the theme of “health care, technology, and place”.
• It is the objective of this collaborative program to enrich the PhD experience without unduly extending the duration of students’ graduate education. Every student enrolled in the collaborative doctoral program must complete the requirements of the collaborative program and the requirements of the doctoral program in their home graduate unit. It will be up to each
participating home department to determine whether HCTP courses are completed in addition to the department's customary course requirements or as a part of those requirements.

Core Courses

JNH 5001H Health Care Settings, Sites and Human Well-Being
JNH 5002H The Body, Health Care, Technology and Place
BME 1456H Changing Health Care Technologies, People and Places
NUR 1031H Technology and Place in Contemporary Health Care Work

Program Committee

Fernie, Geoffrey - BSc, PhD, PEng, CCE - Biomedical Engineering
Harvey, Elizabeth - BA, MA, PhD - English
Coyte, Peter C. - BA, MA, PhD - Health Policy, Management & Evaluation (Director)
Rotstein, Ori - MSc, MD, FRCS(C) - Medical Science
Hodnett, Ellen - RN, PhD, FCAHS - Nursing Science
MacKeigan, Linda - BScPhm, PhD - Pharmaceutical Sciences
Poland, Blake - BA, MA, PhD - Public Health Sciences
Reid, Denise - BSc(OT), MEd, PhD - Rehabilitation Science
Chambon, Adrienne - BA, MA, BSW, PhD - Social Work
Health Services and Policy Research

Lead Faculty
Medicine

Participating Degree Programs
Exercise Sciences – MSc, PhD
Health Policy, Management and Evaluation – MSc, PhD
Medical Science – MSc, PhD
Nursing Science – PhD
Pharmaceutical Science – MSc, PhD
Public Health Sciences – MSc, PhD
Rehabilitation Sciences – MSc, PhD
Social Work – MSW, PhD

Overview
The Collaborative Program in Health Services and Policy Research is part of the Ontario Training Centre in Health Services and Policy Research (OTC). The OTC is a consortium of six Ontario Universities seeking to improve graduate education for students who are interested in becoming health services and policy researchers. The consortium includes Lakehead, Laurentian, McMaster, and York Universities as well as the Universities of Ottawa and Toronto. Participating graduate programs at the University of Toronto are listed above.

Graduates of the Collaborative Program demonstrate knowledge of Canada’s health care system, health services and policy research tools, and theories of population health, knowledge production and knowledge transfer. Students complete relevant courses required by the Collaborative Program as well as by the home unit. Students must complete a dissertation under the supervision of a core faculty member of the Collaborative Program in the student’s home department that addresses the theme of health services and policy research.

Contact and Address
Web: www.hpme.utoronto.ca/English/Collaborative-Programs.html
E-mail: rhonda.cockerill@utoronto.ca
Telephone: (416) 978-7721
Fax: (416) 978-7350

Collaborative Graduate Program in Health Services and Policy Research
c/o Professor R.W. Cockerill
Department of Health Policy, Management and Evaluation
Faculty of Medicine
University of Toronto
Suite 428, Fourth Floor
155 College Street
Toronto, Ontario M5T 3M6
Canada

Master's Level

Admission Requirements
• Students who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
• Master's students are accepted under the School of Graduate Studies general regulations and the specific criteria of the participating unit.
• An overall B+ average in the last two years of an appropriate four-year University of Toronto bachelor’s degree, or its equivalent from a recognized university.
• An interest in health services and policy research outlined in an autobiographical letter including the student’s reasons for becoming a health services or policy researcher.

Program Requirements
• Students follow a program of study acceptable to both the participating unit and the Collaborative Program.
• Students must complete the requirements of the Collaborative Program (completion of a practicum and participation in one Summer Institute) in addition to those requirements for the masters degree program specified by their home graduate unit.
• Students are required to write a thesis under the supervision of a core faculty member of the Collaborative Program. The thesis must address the theme of health services and policy research.
• In addition to the requirements for the degree program specified by the home graduate unit, students must complete a practicum and participate in one Summer Institute hosted by the OTC.

Doctoral Level

Admission Requirements
• Students who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
• Doctoral students are accepted under the School of Graduate Studies general regulations and the specific criteria of the participating unit.
• Applicants are required to:
  o demonstrate academic excellence in completed courses (B+ average in graduate courses), scholarships and academic awards received;
  o demonstrate aptitude for health services and policy research (letter of recommendation from a previous professor or thesis supervisor commenting on the student’s academic abilities and likelihood for success as a health services researcher);
Program Requirements

- Students follow a program of study acceptable to both the participating unit and the Collaborative Program.
- Students must complete the requirements of the Collaborative Program (completion of a practicum and participation in one Summer Institute) in addition to those requirements for the doctoral degree program specified by their home graduate unit.
- Students are required to complete a dissertation under the supervision of a core faculty member of the Collaborative Program. The dissertation must address the theme of health services and policy research.
- In addition to the requirements for the degree program specified by the home graduate unit, students must complete a practicum and participate in one Summer Institute hosted by the OTC.

Course List

1. Courses offered by the University of Toronto departments involved in the OTC are listed in the separate calendar entries of Health Policy, Management and Evaluation; Medical Science, Nursing Science; Pharmaceutical Sciences; Public Health Sciences; Rehabilitation Science; and Social Work.
2. Research and Policy Practicum - by working with a health services and policy research team, the student develops practical skills in completing a research and/or policy project and effectively communicating the results of that research to stakeholders.
   - HSR 1000H Research and/or Policy Practicum
3. Summer Institute - a five-day workshop held at one of the participating universities. All students must participate and are graded on a Credit/No Credit (CR/NCR) basis.
   - HSR 1002H HSR Summer Institute

Program Committee

- Thomas, Scott – BSc, MSc, PhD - Exercise Sciences
- Cockerill, Rhonda - BA, MA, PhD - Health Policy, Management & Evaluation (Director)
- Coyte, Peter C. - BA, MA, PhD - Health Policy, Management & Evaluation
- Bierman, Arlene - BA, MS, MD - Medical Sciences
- Doran, Diane - RN, BA, MHSc, PhD - Nursing Science
- Goering, Paula - RN, BSN, MSN, PhD - Nursing Science
- O’Brien-Pallas, Linda-Lee - BScN, MScN, PhD, National Research Chair in Nursing Human Resources - Nursing Science
- Boon, Heather - BScPhm, PhD - Pharmaceutical Sciences
- Harvey, Bart - BA, MD, MSc, FRCP(C), FACPM, PhD - Public Health Sciences
- Jaglal, Susan - BSc, MSc, PhD - Rehabilitation Science
- Williams, Charmaine - BSc, BA, MSW, PhD - Social Work
International Relations

Lead Faculty
Arts and Science

Participating Degree Programs
Anthropology – MA
Economics – MA
Geography – MA
Health Administration – MSc
History – MA
Political Science – MA
Sociology – MA
Religion – MA
Women and Gender Studies – MA

Overview
The Collaborative Master of Arts/Master of Science in International Relations program engages students with a strong interest in interdisciplinary studies who intend to pursue careers in business, government, international organizations, non-governmental organizations, or academia. The program combines the approaches and perspectives of a variety of disciplines to make sense of a rapidly changing world, and offers students the flexibility to pursue their own particular interests.

The graduate programs listed above participate in the collaborative program. Students who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a degree program in one of the collaborating departments. Following successful completion of the program requirements, students receive the master's degree in their home department, with a transcript notation indicating completion of the Collaborative Program in International Relations.

Students in the Collaborative Program in International Relations may be interested in the Combined JD/MA in Political Science and Law program – see the Political Science entry in this calendar for further information.

Contact and Address
Web: www.utoronto.ca/mair
E-mail: cis.mair@utoronto.ca
Telephone: (416) 946-8917
Fax: (416) 946-8915

Megan Ball
Program Administrator
Collaborative Master’s in International Relations Program
Munk Centre for International Studies
University of Toronto
Room 255S, 1 Devonshire Place
Toronto, Ontario M5S 3K7
Canada

Master's Level

Admission Requirements
• Admission is subject to the approval of the graduate department concerned and the collaborative program.
• A cumulative average of A- is normally required for admission.
• Applicants will normally be expected to have completed and passed an introductory course in microeconomics and macroeconomics at the undergraduate level.

Program Requirements
• Students complete a total of 2.5 full-course equivalents (FCE) as follows: 1.5 required core FCE (in international economics, history and philosophy of international relations, and public international law) and 1.0 elective FCE (in international relations).
• Additional degree requirements vary from department to department. Details of additional requirements are available from the Centre for International Studies, from the departmental graduate or MA supervisors, or from the collaborative program's Web site listed above.
• Students must demonstrate competence in a second language.

Program Committee
Duranton, Gilles - BSc, MA, MSc, PhD - Economics
Wark, Wesley - BA, MA, PhD - History
Brunnee, Jutta - LLM, SJD - Law (Combined Program Director)
Bernstein, Steven - BA, MA, PhD - Political Science (Director)
Clarkson, Stephen - BA, MA, D de Rech - Political Science
Deibert, Ronald - BA, MA, PhD - Political Science
Kirton, John - BA, MA, PhD - Political Science
Pauly, Louis - BA, MA, MSc, MA, PhD, Canada Research Chair - Political Science
Friedmann, Harriet - AB, MA, PhD - Sociology
Jewish Studies

Lead Faculty
Arts and Science

Participating Degree Programs
Anthropology – MA, PhD
English – MA, PhD
Comparative Literature - MA
German Literature, Culture, and Theory – MA, PhD
History – MA, PhD
History of Art – MA, PhD
Medieval Studies – MA, PhD
Near and Middle Eastern Civilizations – MA, PhD
Political Science – MA, PhD
Religion – MA, PhD
Slavic Languages and Literatures – MA, PhD
Sociology – MA, PhD
Women and Gender Studies - MA

Overview
The Collaborative Program in Jewish Studies offers both broad and intensive exposure to the constituent fields within Jewish Studies. Because of Jewish civilization’s vast chronological and geographical range, as well as its constant interaction and cross-fertilization with other cultures, graduate work within Jewish Studies demands intensive exposure to a wide variety of languages, textual traditions, and scholarly disciplines.

The collaborative program involves the graduate doctoral and master’s programs listed above. Upon successful completion of the master’s requirements of the home department and the program, students receive the designation “Completed Collaborative Program in Jewish Studies” on their transcript. Upon successful completion of the doctoral requirements of the home department and the program, students receive, in addition to the doctoral degree in their home department, the notation “Completed Collaborative Program in Jewish Studies.”

Master's Level

Admission Requirements
• In addition to the admission requirements of a participating degree program, sufficient linguistic knowledge and familiarity with relevant scholarship in order to carry out graduate work in Jewish Studies within the chosen field must be demonstrated.

Program Requirements
• 0.5 full-course equivalent (FCE) within the student’s home department. Valid courses are:
  o regular offerings by the home department. Major research and writing assignments for such courses must focus on topics in Jewish Studies.
  o independent study with a Jewish Studies Collaborative Master's Program faculty member on a topic in Jewish Studies.
• CJS 1000H Methods Seminar in Jewish Studies.

Doctoral Level

Admission Requirements
• Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments. Students may apply to the collaborative program as soon as they have been admitted to the doctoral program in one of its constituent departments.
• In addition to the admission requirements of the home department, sufficient linguistic knowledge, textual training, and familiarity with relevant scholarship in order to carry out graduate work in Jewish Studies within the chosen field are required.

Program Requirements
• 1.0 full-course equivalent (FCE) as follows: 0.5 FCE within and 0.5 FCE outside of the student’s home department. Valid courses include regular offerings and occasional offerings by visiting professors of Jewish Studies.
• CJS 2000H Jewish Studies Seminar core course in research topics and methods in Jewish Studies.
• A doctoral dissertation that deals substantively with topics in Jewish Studies.

Contact and Address
Web: www.cjs.utoronto.ca/admission/graduate
E-mail: jewish.studies@utoronto.ca
Telephone: (416) 978-8118
Fax: (416) 946-7719

Collaborative Program in Jewish Studies
University of Toronto
University College
Room 316, 15 King’s College Circle
Toronto, Ontario M5S 3H7
Canada

#Courses are taught by Program faculty and incorporate themes within and outside of Jewish Studies. Major research and writing assignments for such courses must focus on topics in Jewish Studies.
Course List
Courses marked with # are taught by Program faculty and incorporate themes within and outside of Jewish Studies. Not all courses are offered every year.

**Core Courses**
- CJS 1000H Jewish Studies Master’s Seminar
- CJS 2000H Jewish Studies Doctoral Seminar

**Anthropology**
- ANT 5146H Colonial and Post-Colonial Discourses

**Comparative Literature/Germanic Languages and Literatures**
- JGC 1750H Modernity and its Discontents

**English**
- ENG 1027H Construction of the Other in Medieval Literature (Jews and Muslims)
- ENG 5023H Elegy, the Elegiac and the Judaic in Twentieth-Century Anglo-American Poetry
- ENG 5573H Performance and Identity in America
- ENG 5578H Parvenus and Passing in Modern American Literature

**Germand Languages and Literatures**
- GER 1503H Heine and Critical Theory

**History**
- HIS 1267H Nationalism
- HIS 1274H The Nazis, Occupied Europe, and the Jews
- HIS 1276H The Third Reich and the Holocaust
- HIS 1277H Topics in Jewish History
- HIS 1279H World War II in East Central Europe
- HIS 1287H Polish Jews Since the Partitions of Poland

**Medieval Studies**
- MST 3210H Medieval Spain
- MST 3225H Jews and Christians in Medieval and Renaissance Europe

**Near and Middle Eastern Civilizations**
- NMC 1100Y Introduction to Aramaic
- NMC 1101Y Early Syriac Texts
- NMC 1102Y Palestinian Aramaic Texts
- NMC 1104Y Aramaic Epigraphy
- NMC 1105Y Syriac Historical Texts
- NMC 1106Y Syriac Exegetical Texts
- NMC 1111Y Babylonian Aramaic
- NMC 1300Y Intensive Prerequisite Hebrew
- NMC 1304Y Biblical Narrative
- NMC 1306H Scribes, Manuscripts, and Translations of the Hebrew Bible
- NMC 1308H Prophecy in Ancient Israel
- NMC 1309H Wisdom in Ancient Israel
- NMC 1311Y Post Biblical Hebrew: Mishnah and Midrashim
- NMC 1312H Midrash Before the Rabbis: The Beginnings of Biblical Interpretation
- NMC 1313H Mishna and Tosefta
- NMC 1316H Modern Hebrew Poetry
- NMC 1317H Modern Hebrew Prose
- NMC 1318Y Midreshei Halakha
- NMC 1324Y Hebrew Legal Codes
- NMC 1326Y Topics in Midrashic Literature
- NMC 1608Y Life Cycle and Personal Status in Judaism: Reproductive Technology and Jewish Law
- NMC 1609Y Gender-related Topics in Law and Religion

**Philosophy**
- Various courses, depending upon their content in a given year. Consult the Collaborative Program Director.
- PHL 2084H Seminar in Nineteenth-Century Continental Philosophy
- PHL 2089H Seminar in Twentieth-Century Continental Philosophy
- PHL 2090H Hermeneutics

**Political Science**
- POL 2021Y Topics in Comparative Jewish and Non-Jewish Political Thought

**Religion**
- RLG 2012Y Natural Law in Judaism and Christianity
- RLG 2018H Religion and Bioethics
- RLG 3103H Problems in Israelite Religion
- RLG 3611H Topics in Rabbinic Midrash
- RLG 3614H Interpretations of Jewish Tradition
- RLG 3621H Modern Jewish Thought
- RLG 3622H Maimonides and his Modern Interpreters
- RLG 3623H The Thought of Leo Strauss: Philosophy, Theology and Politics
- RLG 3624Y The Jurisprudence of Maimonides
- RLG 3634H Worship and Scripture at Qumran
- RLG 3641H Interpretations of Jewish Tradition
- RLG 3645Y The Jewish Legal Tradition
- RLG 3647Y Early Rabbinic Judaism
- RLG 3661H Judaism and Philosophy
- RLG 3692H Themes in Jewish Studies II
- RLG 3655H Readings in Jewish Literature

**Slavic Languages and Literatures**
- SLA 1207Y The Imaginary Jew

#Courses are taught by Program faculty and incorporate themes within and outside of Jewish Studies. Major research and writing assignments for such courses must focus on topics in Jewish Studies.
**Program Committee**

Kalmar, Ivan - BA, MA, PhD - Anthropology  
Cohen, Adam - BA, MA, PhD - Art  
Ross, Jill - BA, MA, PhD - Comparative Literature  
Most, Andrea - BA, MA, PhD - English  
Goetschel, Willi - LicPhil, PhD - German  
Penslar, Derek - BA, MA, PhD - History  
Meyerson, Mark - BA, MA, PhD - Medieval Studies  
Meacham, Tirzah - BA, MA, PhD - Near & Middle Eastern Civilizations  
Najman, Hindy - BA, MA, PhD - Near & Middle Eastern Civilizations  
Gibbs, Robert - BA, MA, PhD - Philosophy  
Kopstein, Jeffrey - BA, MA, PhD - Political Science  
Novak, David - AB, MHL, rabbinical diploma, PhD - Religion  
Livak, Leonid - BA, MA, PhD - Slavic Languages & Literatures  
Bodemann, Michal - MA, PhD - Sociology
Knowledge Media Design

Lead Faculty
Information

Participating Degree Programs
Architecture – MArch
Computer Science – MSc, PhD
Curriculum Studies and Teacher Development – MA, MEd, PhD
History and Philosophy of Education – MA, MEd, EdD, PhD
Information – MI, JD/MISt
Information Studies – PhD
Landscape Architecture – MLA
Mechanical and Industrial Engineering – MAsc, MEng, PhD
Medical Science – MSc, PhD
Sociology – MA, PhD
Urban Design – MUD
Visual Studies – MVS

Overview

The Collaborative Program in Knowledge Media Design (KMD) was launched in 2002 as the teaching arm of the Knowledge Media Design Institute (KMDI). The Collaborative Program provides a specialization for graduate students from a variety of academic backgrounds to engage in the design, prototyping, evaluation, and use of knowledge media. In keeping with KMDI's human-centred approach, students explore the design and use of new media in the context of real world practices of individuals and communities. Access to an intensely collaborative and cross-disciplinary faculty encourages students to take a broader view of technological and social change and to be constructively critical of technological utopian and dystopian visions alike. The goal is for students to take into account heritage and history, to understand the realities of today, and to design for tomorrow.

Students have access to a community of scholars and the network of relationships that the Institute coordinates. They gain first-hand experience of a living network of innovation, an environment in which the resources are people and knowledge and the social capital and value that are generated through collaboration. The Collaborative Program is open to master's and PhD students in the collaborating graduate programs listed above.

Contact and Address
Web: kmdi.utoronto.ca/graduate
E-mail: program@kmdi.utoronto.ca
Telephone: (416) 946-8515
Fax: (416) 978-5634

Collaborative Program in Knowledge Media Design
Knowledge Media Design Institute
University of Toronto
Bahen Building
7th Floor, 40 St. George Street
Toronto, Ontario M5S 2E4
Canada

Master's Level

Admission Requirements
• Students wishing to apply to the Collaborative Program must be enrolled, or anticipate being enrolled, in a collaborating degree program in one of the collaborating graduate programs. Applying to the Collaborative Program is a separate procedure. A Collaborative Program application includes: a completed Application for Admission Form, a statement of research interest, a resume, two letters of reference, and academic transcripts. Consult the KMDI Web site for application guidelines. Admission will be subject to the approval of the graduate department concerned and the Program Committee of the Collaborative Program.

Program Requirements
• Students must meet all the requirements of their home department.
• Master's students must successfully complete KMD 1001H, KMD 1002H, and 0.5 full-course equivalent (FCE) from the KMD 2001-2004 series or a list of recognized affiliate courses. They also must submit a portfolio that includes completed student research in knowledge media design. The Program Committee of the Collaborative Program will review all portfolios for their quality and contribution to the field.
• Master's students are encouraged, but not obligated, to complete a thesis/research project component in their home department, the topic of which should be relevant to the field of knowledge media design. Students' KMD portfolio will be a component of their thesis/research project.
• Collaborative program courses may count towards the home department degree requirements or may be in addition to the degree requirements, depending on the participating department's individual program regulations.

Doctoral Level

Admission Requirements
• Students wishing to apply to the Collaborative Program must be enrolled, or anticipate being enrolled, in a collaborating degree program in one of the collaborating graduate programs. Applying to the Collaborative Program is a separate procedure. Consult the Collaborative Program is a separate procedure. Consult the KMDI Web site for application guidelines. Admission will be subject to the approval of the
graduate department concerned and the Program Committee of the Collaborative Program.

**Program Requirements**

- Doctoral students are required to take KMD 1001H and KMD 1002H if not already taken in the master's program, and 0.5 full-course equivalent (FCE) from the KMD 2001-2004 series or a list of recognized affiliate courses. They also must submit a portfolio that includes completed student research in knowledge media design. The Program Committee of the Collaborative Program will review all portfolios for their quality and contribution to the field.
- The dissertation topic must be in the field of knowledge media design. The thesis advisor and at least one other committee member must be from participating units. Students' KMD portfolio will most often be connected with their dissertation proposal.
- The home graduate unit and the student’s supervising committee will determine further requirements. The collaborating units cooperate in jointly developing a program that is individually tailored to meet the needs of each student.

**Course List**

For courses offered in a particular year, check the Collaborative Program Web site: kmdi.utoronto.ca/graduate

**Knowledge Media Design**

**Required**

- KMD 1001H Core Seminar in Knowledge Media Design I—Fundamental Concepts
- KMD 1002H Pro-seminar in Knowledge Media Design II—Contexts and Practices

**Electives**

- KMD 2001H Human-centred Design
- KMD 2002H Technologies for Knowledge Media
- KMD 2003H Knowledge Media and Learning
- KMD 2004H Knowledge Media, Culture and Society

**Participating Department Electives**

Existing courses from the participating departments that satisfy KMD requirements are listed below. These courses may not be offered every year. Courses that are mandatory for a student’s degree from the home department cannot normally be counted. Some of the elective courses may require a significant amount of background knowledge and experience. Enrolment in such courses may require the permission of the instructor.

- ARC 1033H Architecture, Media and Communications
- C&T 1004H Communications: History/Theory/Technology
- C&T 1005H Understanding McLuhan
- C&T 1009H New Media and Policy
- CSC 2105H Software Engineering
- CSC 2106H Requirements Engineering
- CSC 2501H Computational Linguistics
- CSC 2502H Knowledge Representation and Reasoning
- CSC 2503H Computer Graphics
- CSC 2507H Conceptual Modelling
- CSC 2509H Data Management Systems
- CSC 2511H Natural Language Computing
- CSC 2514H Human-Computer Interaction
- CSC 2518H Spoken Language Processing
- CSC 2524H Topics in Interactive Computing
- CSC 2527H The Business of Software
- CSC 2536H Computer Supported Cooperative Work
- CSC 2537H Hypermedia
- CTL 1602H Introduction to Computers in Education
- CTL 1603H Introduction to Knowledge Building
- CTL 1608H Constructive Learning and Design of Online Environments
- CTL 1923H Technology Supported in Situ Learning
- FAH 1478H Art and Animation
- FIS 1201H Information and its Social Contexts
- FIS 1230H Management of Information Organizations
- FIS 1340H Introduction to Information Systems
- FIS 1341H Analyzing Information Systems
- FIS 1342H Designing Information Systems
- FIS 1343H Introduction to Database Management and Design
- FIS 2149H Administrative Decision-Making in Information Organizations
- FIS 2150H Advanced Management of Information Organizations
- FIS 2165H Social Issues in Information and Communication Technologies
- FIS 2169H User-Centred Information Systems Development
- FIS 2179H Interacting with Information Systems
- FIS 2183H Knowledge Management and Systems
- JAC 1001H Media, Mind and Society I
- MIE 1402H Experimental Methods in Human Factors Research
- MIE 1403H Analytical Methods in Human Factors Research
- MIE 1407H Engineering Psychology and Human Performance
- MIE 1502H Information Technology and Systems: Management Strategies
- MIE 1504H Management of Technological Change
- MSL 2325H Museums and New Media Practice
- SOC 6008H Network Analysis I
- SOC 6108H Network Analysis II
- SOC 6303H Field Methods
- SOC 6312H Social Aspects of Technology and Work
- SOC 6501H Research Design and Hypothesis Testing in Sociology
- TPS 1447H Technology in Education: Philosophical Issues
- TPS 1839H Administration of Technology in Higher Education
- TPS 1005H The Computer in Educational Administration
- VIS 1010H Contemporary Art Since 1960
- VIS 1020H Contemporary Art: Theory and Criticism
- VIS 2002H MVS Contemporary Art Issues
Program Committee
Danahy, John - BLA, CUrbDes, MScUrb&DesPl - Architecture, Landscape, & Design
Penn, Gerald - BSc, MSc, PhD - Computer Science
Slotta, James - MA, PhD - Curriculum Studies and Teacher Development, Curriculum Teaching & Learning (Program Director)
Boler, Megan - BA, PhD - History & Philosophy of Education, Theory & Policy Studies in Education
Caidi, Nadia - BA, MA, MLS, PhD - Information
Chignell, Mark - BSc, MSc, PhD - Mechanical & Industrial Engineering
Soren, Barbara - BPHE, BEd, MSc(T), PhD - Museum Studies, Information (Graduate Administrator)
Berry, Brent - BA, PhD - Sociology
Steele, Lisa - RCA, honourary PhD OCAD - Visual Studies, Art
Collaborative Programs

Management and Economics

Lead Faculty
Arts and Science

Participating Degree Programs
Economics – PhD
Management – PhD

Overview
The Rotman School of Management and the Department of Economics offer a limited enrolment collaborative program in Management and Economics. The student will undertake a program of study that includes: developing a basic understanding in one of the core areas of management (accounting, economics, finance, marketing, operations management, organizational behaviour); developing an in-depth understanding of economics and econometrics (PhD-level work); and carrying out PhD-level work in one of the areas of management. At present, only finance is available in the collaborative program.

Contact and Address
Web: www.economics.utoronto.ca
E-mail: ecograd@chass.utoronto.ca
Telephone: (416) 978-7169
Fax: (416) 978-6713

Collaborative Program in Management and Economics
Department of Economics
University of Toronto
Room 4072, Sidney Smith Hall
Toronto, Ontario M5S 3G3
Canada

Doctoral Level

Admission Requirements
- Admission to the program is by permission of the graduate coordinators in both Economics and Management. Prospective applicants should apply to the Department of Economics, and must meet the admission requirements of the Department of Economics.
- Admission requirements (at a minimum) are the same as for the PhD program in Economics. Students should have a strong undergraduate and MA-level background in economic theory, as well as mathematics.
- Preference is given to students with undergraduate or other previous course work in commerce or business, especially finance and accounting.

Program Requirements
- The PhD is a full-time program. Applicants must be registered as full-time students for a minimum period of three years.
- The PhD is a research degree which requires:
  - demonstration of competence in core economics, in finance, and a second special field in economics;
  - fulfilment of a breadth/distribution requirement in management and finance;
  - a thesis based on original research.
- To fulfill the program requirements outlined below, students will complete all of their comprehensive exams in two years, and their required course work in 2.5 years.
  - **Year 1** - Students must take the Math-Stat Review (ECO 1011H), the PhD microeconomic theory sequence (ECO 2020H and ECO 2030H), the PhD econometrics sequence (ECO 2400H and ECO 2401H), and the first two courses of the Rotman Finance sequence (MGT 3030H and MGT 3031H). They must also complete (or be exempt from) Financial Accounting (MGT 1221H or MGT 1222H), and Business Finance by the end of Year 1. Students can satisfy the Business Finance requirement by taking ECO 2503H. Students must pass the microeconomic theory comprehensive exam by the end of Year 1.
  - **Year 2** - Students complete the PhD sequence in macroeconomics (ECO 2021H and ECO 2031H), and satisfy their main field requirement by completing the PhD Finance sequence (MGT 3032H, MGT 3033H, and MGT 3034H). Students must pass the comprehensive exam in macro, as well as the Rotman Finance comprehensive exam. Students satisfy the distributional requirement in economics by taking two courses from a list approved by the Department of Economics. This comprises the minor field; note that the Financial Economics field is excluded from this list. Students should also attend the Finance seminar on a regular basis, beginning in Year 2.
  - **Year 3** - Students complete their management distributional requirement by taking two courses in a stream approved by the Rotman School of Management, drawn from the second-year MBA courses (i.e., MGT 2300 series). Students must participate in the Graduate Research Seminar (ECO 4060Y), and present a “second year” paper proposal by February of Year 3. The completed “second year” paper must be presented in the Finance Seminar by the Fall of Year 4.
  - **Years 4 and 5** - Students complete their dissertation.
Course List
See the separate entries in this calendar for the Economics and Management PhD programs.

Program Committee
Yatchew, Adonis - BA, MA, PhD - Economics
Pauly, Peter - MA, PhD - Management
Neuroscience

Participating Degree Programs
Biochemistry – MSc, PhD
Biomedical Engineering – MSc, PhD
Cell and Systems Biology – MSc, PhD
Dentistry – MSc, PhD
Developmental Psychology and Education – MA, PhD
Laboratory Medicine and Pathobiology – MSc, PhD
Medical Biophysics – MSc, PhD
Medical Science – MSc, PhD
Molecular Genetics – MSc, PhD
Pharmacology – MSc, PhD
Pharmaceutical Sciences – MSc, PhD
Physiology – MSc, PhD
Psychology – MA, PhD
Rehabilitation Science – MSc, PhD
Speech-Language Pathology – MSc, PhD

Overview
The graduate programs listed above participate in the Collaborative Program in Neuroscience. Participating graduate units contribute courses and provide facilities and supervision for graduate research. Students must follow a program of studies acceptable to both the participating unit and the Neuroscience Program. Upon successful completion of the requirements, students receive, in addition to the master’s or PhD degree in their discipline, the notation “Completed Collaborative Program in Neuroscience” on their transcripts as well as a certificate.

Students interested in joining the program should contact the Program in Neuroscience office to obtain an application form. Students should register within one month of initial registration in the participating unit. The Neuroscience Web site provides summaries of research fields of all the faculty in the Collaborative Program and their graduate unit affiliations and addresses, as well as additional information on neuroscience courses.

Students in the program receive the Program in Neuroscience newsletter and a monthly calendar listing neuroscience lectures held on campus. The program runs a Distinguished Lecturer series of talks by eminent neuroscientists and an annual poster day which students are required to attend.

Contact and Address
Web: www.neuroscience.utoronto.ca
E-mail: p.neuroscience@utoronto.ca
Telephone: (416) 978-8761
Fax: (416) 978-8511

Master's Level

Admission Requirements
• Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating units.

Program Requirements
• The thesis topic must be in the neuroscience area.
• The student’s supervisor must be a member of the Program in Neuroscience (PIN).
• The student must have an adequate background in general neuroscience.
• The student must complete at least 0.5 full-course equivalent (FCE) for the master’s degree chosen from the list of courses approved by the Program in Neuroscience which is listed below.
• The student must attend the Annual PIN Poster Day and present his/her work at least once.
• The student must attend at least 75% of the lectures in the PIN Distinguished Lecturers Series.

Doctoral Level

Admission Requirements
• Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating units.

Program Requirements
• The thesis topic must be in the neuroscience area.
• The student’s supervisor must be a member of the Program in Neuroscience (PIN).
• The student must have an adequate background in general neuroscience.
• The student must complete at least 1.0 full-course equivalent (FCE) for the PhD degree chosen from the list of courses approved by the Program in Neuroscience which is listed below.
• The student must attend the Annual PIN Poster Day and present his/her work at least once.
• The student must attend at least 75% of the lectures in the PIN Distinguished Lecturers Series.
• After completing the MSc or MA, students who wish to continue on to a PhD degree in Neuroscience must register again and fulfill all the program requirements (e.g., students must again present a poster in the doctoral program).
Course List

Neuroscience courses offered by the participating units are listed below. Not all courses are offered each year.

DEN 1060H Oral Physiology: Sensory and Neuromuscular Function
HDP 3286H Developmental Neurobiology
JNR 1444Y Fundamentals of Neuroscience: Cellular and Molecular
JNS 1000Y Fundamentals of Neuroscience: Systems and Behaviour
JPM 1005Y Behavioural Pharmacology
JPY 1007Y Neuropharmacology of Neuronal Receptors
JYG 1555H Topics in Cellular and Molecular Neurobiology
LMP 1003Y Seminar on Diseases of the Central Nervous System
MSC 1006H Advanced Neuroanatomy
MSC 1085H Molecular Approaches to Mental Health and Addictions
MSC 6000H Special Topics in Anatomy (Requires prior permission of the Neuroscience Program Director)
PCL 1012H Cognitive Neuropharmacology
PSL 1024H Advanced Topics: Endocrinology and Neuroendocrinology
PSL 1026H Advanced Topics: Experimental Cell Physiology
PSL 1047H Advanced Topics: Somatosensory and Pain Neuroscience
PSL 1053H Advanced Topics: Critical Assessment of Ion Channel Function
PSL 1068H Advanced Topics: Molecular Basis of Behaviour
PSY 5101H Mechanisms of Behaviour
PSY 5103H Learning and Plasticity
PSY 5104H Neuropsychology
PSY 5110H Advanced Topics in Behavioural Neuroscience I
PSY 5111H Advanced Topics in Behavioural neuroscience II
PSY 5112H Advanced Topics in Behavioural Neuroscience III
PSY 5121H Advanced Topics in Animal Behaviour and Motivation II
PSY 5130H Advanced Topics in Neuropsychology I
PSY 5131H Advanced Topics in Neuropsychology II
PSY 5132H Advanced Topics in Neuropsychology III
PSY 5201H Audition
PSY 5202H Vision
PSY 5203H Higher Cognition
PSY 5204H Attention
PSY 5205H Memory
PSY 5210H Advanced Topics in Perception I
PSY 5211H Advanced Topics in Perception II
PSY 5212H Advanced Topics in Perception III
PSY 5220H Advanced Topics in Cognition I
PSY 5221H Advanced Topics in Cognition II
PSY 5222H Advanced Topics in Cognition III
REH 1510H Disordered Restorative Motor Control

Other Courses

Courses not specifically in neuroscience which do not fulfill the program requirements as neuroscience courses but might be useful for neuroscience students.

JBL 1507H Biochemistry of Inherited Disease
JDB 1025Y Developmental Biology
JNP 1017H* The Molecular and Biochemical Basis of Toxicology
JNP 1018H* Current Topics in Molecular and Biochemical Toxicology
PHM 1122H Fundamentals of Drug Discovery
PSL 1054H Physiological Instrumentation and Electronics
PSL 1472H Sleep Physiology and Chronobiology
PSY 5102H Motivational Processes
SLP 1522Y Speech Physiology and Acoustics
SLP 1533Y Aphasia
SLP 1534Y Motor Speech Disorders
SLP 3001H Theoretical Foundations of Communication Sciences

Program Committee

Trimble, William - BSc, PhD, Canada Research Chair - Biochemistry
Shoichet, Molly - BSc, MSc, PhD, Canada Research Chair - Biomedical Engineering
Sessile, Barry - BDS, BSc, MSD, PhD, FRSC, Canada Research Chair - Dentistry
Lewis, Marc - BA, MA, PhD, CPsych - Human Development & Applied Psychology
Nag, Sukriti - MBBS, MD, MSc, PhD, FRCP(C) - Laboratory Medicine & Pathobiology
Stefanovic, B. - PhD – Medical Biophysics
Carlen, Peter - MD, FRCP(C) - Medical Science
Roder, John - BA, PhD, Canada Research Chair - Molecular Genetics
Hampson, David - PhD - Pharmaceutical Sciences
(Director)
Wells, James - BScPhm, MSc, PhD - Pharmaceutical Sciences
Burnham, Willets - BA, PhD - Pharmacology
Dostrovsky, Jonathan - BSc, MSc, PhD - Physiology (PIN Advisor)
Jia, Zhengping - PhD - Physiology
Yeomans, John - BA, PhD - Psychology
Zebjic, Karl - PhD - Rehabilitation Science
De Nil, Luc - MSc, PhD - Speech-Language Pathology
Peever, John - BSc, MSc, PhD - Cell & Systems Biology

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

Optics

Lead Faculty
Arts and Science

Participating Degree Programs
Chemistry – MSc
Electrical and Computer Engineering – MASc
Materials Science and Engineering – MASc
Physics – MSc

Overview
The graduate programs listed above participate in the Collaborative Master's Program in Optics. The program focuses on the study of optics, photonics, and the interaction of light and matter. Optics is a truly multidisciplinary field, crossing the boundaries between pure and applied science. The Collaborative Program allows students to explore these multidisciplinary aspects.

Students who wish to participate in the Collaborative Program must be admitted to both a master's program in one of the collaborating graduate departments mentioned above and the Collaborative Program. Submit an application form, available from the Collaborative Program Office (the Institute for Optical Sciences); normal deadlines for application to the School of Graduate Studies apply. Students who have already been admitted to a master's program in a home department may apply to the Collaborative Program within the first month of their program.

Upon certification by the Director that all requirements of the Collaborative Program have been fulfilled, the home department recommends the granting of the MSc or MASc degree; the designation “Completed Collaborative Program in Optics” will appear on the transcript.

Contact and Address
Web: www.optics.utoronto.ca
E-mail: eistrate@optics.utoronto.ca
Telephone: (416) 978-1804
Fax: (416) 978-3936

Collaborative Master's Program in Optics
Institute for Optical Sciences
University of Toronto
Suite 331, 60 St. George Street
Toronto, Ontario M5S 1A7
Canada

Master's Level

Admission Requirements
- Admission to a MSc or MASc degree program in one of the four collaborating units.
- Commitment to make optics or photonics the main focus of study in that program, as stated in the application form for the Collaborative Program.

Program Requirements
- Meet all respective degree requirements of the School of Graduate Studies and the home department.
- Successful completion of the Collaborative Program core course IOS1500H.
- If a thesis is required by the home graduate unit, its topic must fall in the broad area of optics. A member of the collaborative program's faculty must be part of the examination committee.

Course List
IOS 1500H  Selected Topics in Optics

See also full course listings in the Departments of Electrical and Computer Engineering; Physics; Chemistry; and Materials Science and Engineering.

Program Committee
Miller, R J Dwayne - BSc, PhD, FRSC, Canada Research Chair - Chemistry, Physics (Program Director)
Walker, Gilbert - BA, PhD - Chemistry
Helmy, Amr - BSc, MSc, PhD - Electrical & Computer Engineering
Lu, Zheng-Hong - BSc, MSc, PhD - Materials Science & Engineering
Sipe, John - BSc, MSc, PhD - Physics
Sexual Diversity Studies

Lead Faculty
Arts and Science

Participating Degree Programs

Anthropology – MA, MSc, PhD
Classics – MA, PhD
Counselling Psychology – MA, MEd, EdD, PhD
Criminology – MA, JD/MA, PhD
Drama – MA, PhD
East Asian Studies – MA, PhD
Educational Administration – MA, MEd, EdD, PhD
English – MA, PhD
Exercise Sciences – MSc, PhD
Higher Education – MA, MEd, EdD, PhD
History – MA, PhD
History and Philosophy of Education – MA, MEd, EdD, PhD
History of Art – MA, PhD
Italian Studies – MA, PhD
Information – MI
Information Studies – PhD
Law – LLM, MSL, SJD
Linguistics – MA, PhD
Medieval Studies – MA, PhD
Museum Studies – MMSt
Near and Middle Eastern Civilizations – MA, PhD
Philosophy – MA, PhD
Political Science – MA, PhD
Psychology – MA, PhD
Public Health Sciences – MPH, MSc, PhD
Public Policy – MPP
Religion – MA, PhD
Social Work – MSW, PhD
Sociology – MA, PhD
Sociology and Equity Studies in Education – MA, MEd, EdD, PhD
Visual Studies – MVS
Women and Gender Studies – MA

Supporting Units
Jewish Studies Collaborative Program

Overview
The Collaborative Program in Sexual Diversity Studies, offered by the Mark S. Bonham Centre for Sexual Diversity Studies, is a rigorously interdisciplinary program recognizing sexual diversity studies as an interdisciplinary field of inquiry. While it has emerged as an autonomous scholarly area, many of those who work within it engage questions of gender, ethnicity, race, Aboriginal status, (dis)ability, and class, to highlight the importance of exploring their interaction with sexual differences.

The graduate degree programs listed above participate in the Collaborative Program. From their home departments, students may take up questions from their own disciplinary or programmatic perspective, but explore it through the theoretical and methodological lens of sexuality studies.

Contact and Address

Web: www.utoronto.ca/sexualdiversity
E-mail: sexual.diversity@utoronto.ca
Telephone: (416) 978-6276 (for general inquiries)
Fax: (416) 971-2027

Director
Sexual Diversity Studies Collaborative Program
Mark S. Bonham Centre for Sexual Diversity Studies
University of Toronto
Room 251, University College
15 King's College Circle,
Toronto, Ontario M5S 3H7
Canada

Master's Level

Admission Requirements
• Each graduate student in the Program shall be enrolled in a participating degree program in the graduate unit where the research is conducted, which is known as the home graduate unit. The student shall meet the admission requirements of both the home graduate unit and the Collaborative Program.

Program Requirements
• Students must meet all respective degree requirements of the School of Graduate Studies and the participating graduate unit, and meet the requirements of the Collaborative Program as follows:
  o 0.5 full-course equivalent (FCE) core course in Sexual Diversity Studies (SDS 1000H)
  o 0.5 FCE in other courses with substantial treatment of sexual diversity
  o thesis or major research paper (if applicable) must be on a sexual diversity studies topic

• Courses may be counted toward the 0.5 FCE beyond the core course if a significant portion of the course addresses questions related to sexuality, or if most of the session work completed in association with it explores such questions.

• All course selection for the additional 0.5 FCE must be approved by the director of the Collaborative Program.

Doctoral Level

Admission Requirements
• Each graduate student in the Program shall be enrolled in a participating degree program in the graduate unit where the research is conducted, which is
known as the home graduate unit. The student shall meet the admission requirements of both the home graduate unit and the Collaborative Program.

Program Requirements

- Students must meet all respective degree requirements of the School of Graduate Studies and the participating graduate unit; and meet the requirements of the Collaborative Program as follows:
  - 0.5 FCE core course in Sexual Diversity Studies (SDS 1000H)
  - 0.5 FCE in other courses with substantial treatment of sexual diversity
  - thesis or major research paper (if applicable) must be on a sexual diversity studies topic.

- Doctoral students in the program who have completed the Collaborative Program at the master's level will not be required to repeat SDS 1000H. All course selection for the additional 0.5 FCE must be approved by the director of the Collaborative Program.

- The doctoral thesis committee should include at least one faculty member associated with SDS. In most cases, the supervisor would be associated with SDS, though in some cases, the student's particular analytical perspective will suggest another faculty member in her or his discipline.

- The student's course of study and overall progress will be reviewed annually by the Collaborative Program director, though ultimate responsibility for the student's progress will remain with the graduate chair of the home program.

Course List

SDS 1000H  Theoretical and Methodological Issues in Sexual Diversity Studies
SDS 1999H  Special Topics in Sexual Diversity Studies

Program Executive Committee

The full Graduate Committee includes one representative of each partner program. That Committee has approved the creation of a Graduate Program Executive Committee, composed as follows:
- Rayside, David - BA, AM, PhD - Political Science
- Johnson, Stephen - BA, MA, PhD - Drama
- Valverde, Mariana - BA, MA, PhD, FRSC - Criminology
- Ruti, Marjut - BA, MA, PhD - English
- Cossman, Brenda - BA, LLB, LLM - Law
- Walcott, Rinaldo - BA, MA, PhD - Sociology & Equity Studies in Education
- Tambe, Ashwini - BA, MS, PhD - Women & Gender Studies, History

Two graduate students (committee members for other than admission decisions)
South Asian Studies

Lead Faculty
Arts and Science

Participating Degree Programs
- Anthropology – MA, PhD
- English – MA, PhD
- Geography – MA, PhD
- History – MA, PhD
- Music – MA, PhD
- Political Science – PhD
- Religion – MA, PhD
- Social Work – MSW, PhD
- Sociology in Education – MA, MEd, EdD, PhD
- Women and Gender Studies – MA

Overview
The interdisciplinary Collaborative Master's and Doctoral Program in South Asian Studies is designed for students who wish to acquire a nuanced understanding of South Asia as a secondary area of specialization while pursuing graduate studies in another discipline. The focus of this program is necessarily broad in that it provides students with an understanding of ancient and modern history, social change, economic development, contemporary politics, religious traditions, literary culture, and a spectrum of related topics.

The Centre for South Asian Studies, which administers the Collaborative Program, provides a nucleus for the participation of South Asian Studies scholars from across the University. Students will benefit from the physical presence of the Centre and its regular activities of research fora, conferences, and visiting lecturer and scholar programs. In addition, the University's library collection in South Asian studies is the largest in Canada.

Master's Level

Admission Requirements
- Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments. Applicants must meet the admission requirements of the graduate unit in which they intend to enrol. Admission will be subject to the approval of the graduate unit concerned and the Program Committee of the Collaborative Program.

Program Requirements
- A mandatory half-year core course entitled Issues in South Asian Studies taught by the core faculty. The core course will be the same for both master's and doctoral students. Master's students who proceed to the doctoral program will not be required to take the core course again. With the permission of the home graduate unit, the core course can be taken in lieu of one of the courses required by the home unit.
- Attendance at the visiting lecture series organized by the Centre for South Asian Studies during the academic year in which the student takes the core course.
- A written thesis; it is expected that the dissertation will include a significant South Asian component.
- For master's students writing a research paper, the home unit will determine whether a South Asian component is required in the research paper.
- For master's students writing a thesis and master's students writing a research paper, language requirements will be assessed on a case-by-case basis.

Contact and Address
Web: www.utoronto.ca/csas/
E-mail: southasian.grad@utoronto.ca
Telephone: 416-946-8996
Fax: 416-946-8838

Collaborative Program in South Asian Studies
Centre for South Asian Studies
Munk Centre for International Studies
University of Toronto
Room 228N, 1 Devonshire Place
Toronto, Ontario M5S 3K7
Canada
Collaborative Programs

Doctoral Level

Admission Requirements

- Applicants who wish to enrol in the Collaborative Program must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments. Applicants must meet the admission requirements of the graduate unit in which they intend to enrol. Admission will be subject to the approval of the graduate unit concerned and the Program Committee of the Collaborative Program.

Program Requirements

- A mandatory half-year core course entitled Issues in South Asian Studies taught by the core faculty (unless already taken in the master's program). With the permission of the home graduate unit, the core course can be taken in lieu of one of the courses required by the home unit.
- Attendance at the visiting lecture series organized by the Centre for South Asian Studies for a total of two years, including the academic year in which the student takes the core course.
- The dissertation to include a significant South Asian component.
- A research presentation to the Program Committee on a South Asian topic in Year 3 or Year 4 of the program.
- Language requirement, depending on the student's area of specialization.

Core Course

SAS 2004H  Issues in South Asian Studies

Program Committee

Prakruti, Dave - BA, MA, PhD - Anthropology
Miller, Heather - BA, MSc, MA, PhD - Anthropology
Kanaganayakam, Chelvanayakam - BA, PhD - English
Goonewardena, Kanishka - BSc, MPI, PhD - Geography
Rankin, Katharine - BA, MRP, PhD - Geography
Birla, Ritu - BA, MA, MPhil, PhD - History
Kasturi, Malavika - BA, MPhil, MA, PhD - History
Tambe, Ashwini - BA, MA, PhD - History, Women and Gender Studies
Rubinoff, Arthur - BA, MA, PhD - Political Science
Dhand, Arti - BA, MA, PhD - Religion
McIntire, C. T. - BA, MA, MDiv, PhD - Religion
Rao, Ajay - BA, MA, PhD - Religion
Baber, Zaheer - BA, MA, PhD - Sociology
Women and Gender Studies

Lead Faculty
Arts and Science

Participating Degree Programs
Adult Education and Community Development – MA, MEd, EdD, PhD
Anthropology – MA, MSc, PhD
Cinema Studies – MA
Classics – MA, PhD
Comparative Literature – MA, PhD
Counselling Psychology – MA, MEd, EdD, PhD
Criminology – MA, PhD
Curriculum Studies and Teacher Development – MA, MEd, EdD, PhD
Drama – MA, PhD
Educational Administration – MA, MEd, EdD, PhD
English – MA, PhD
Exercise Sciences – MSc, PhD
French Language and Literature – MA, PhD
Geography – MA, MSc, PhD
Germanic Literature, Culture and Theory – MA, PhD
Health Administration – MHSc, MSc, PhD
Higher Education - MA, MEd, EdD, PhD
History – MA, PhD
History and Philosophy of Education - MA, MEd, EdD, PhD
Information – MI
Information Studies – PhD
Law – LLM, SJD
Medieval Studies – MA, PhD
Near and Middle Eastern Civilizations – MA, PhD
Nursing Science – MN, PhD
Philosophy – MA, PhD
Political Science – MA, PhD
Public Health Sciences – MPH, MSc, PhD
Religion – MA, PhD
Second Language Education - MA, MEd, PhD
Social Work – MSW, PhD
Sociology – MA, PhD
Sociology in Education – MA, MEd, EdD, PhD
Spanish – MA, PhD

Overview
The Graduate Collaborative Program in Women and Gender Studies (CWGS) provides a formal educational context for the pursuit of interdisciplinary research in women and gender studies and advanced feminist scholarship. The program, offered at the master's and doctoral levels, provides a central coordinating structure to facilitate and disseminate research in women and gender studies through student and faculty research seminars, colloquia, circulation of work in progress, study groups, conferences, and publications. The CWGS contributes to the development of an integrated research community in women and gender studies at the University of Toronto.

The graduate programs listed above participate in the Collaborative Program in Women and Gender Studies at the University of Toronto. The collaborating units contribute courses and provide facilities and supervision for graduate research. The program is administered by the Women and Gender Studies Institute (WGSI). The CWGS brings together 33 graduate programs providing more than 100 courses and involving over 100 graduate faculty members.

Students who successfully complete the requirements of the collaborative program will receive the notation “Completed Collaborative Program in Women and Gender Studies” on their transcript, in addition to the master's or doctoral degree from their home graduate unit.

Contact and Address
Web: www.utoronto.ca/wgsi
E-mail: grad.womenstudies@utoronto.ca
Telephone: (416) 978-3668
Fax: (416) 946-5561

Graduate Collaborative Program in Women and Gender Studies
Women and Gender Studies Institute
University of Toronto
Room 2036, Wilson Hall, New College
Toronto, Ontario M5S 1C6
Canada

Master's Level

Admission Requirements
• Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments. Students must fulfill all the degree requirements in the home department.
• Applicants to the collaborative program should have a substantial undergraduate background in gender and feminist studies or an equivalent focus within a discipline. In exceptional cases, extensive work or activist experience which also requires academic knowledge of research on women and/or gender will also be considered.
• Two-page statement of research intent explaining how your program of study and specific research interests relate to women and gender studies at the master's level.
• Two letters of reference outlining your background in women and gender studies.

Program Requirements
• Programs of study should be planned in consultation with the CWGS Graduate Coordinator as well as the Coordinator of Graduate Studies in the student's home graduate unit.
Collaborative Programs

- Courses should be selected from the established cross-listed courses or approved by the Graduate Coordinator of the collaborative program.

Non-Thesis Master’s
- A required 0.5 full-course equivalent (FCE) selected from WGS 100H, WGS 1001H, or WGS 1002H.
- 1.0 FCE of cross-listed or approved courses with a focus on women/gender/feminist/sexuality/critical race/postcolonial studies.
- Regular attendance at the WGS Research Seminar

Thesis Master’s
- A required 0.5 FCE selected from WGS 1000H, WGS 1001H, or WGS 1002H.
- 0.5 FCE course cross-listed or approved with a focus on women/gender/feminist/sexuality/critical race/postcolonial studies.
- Regular attendance at the WGS Research Seminar
- The thesis, or major paper, dealing with a subject in the field of women and gender studies.
- Theses will be supervised and evaluated in the same manner as those in the home graduate unit. Normally, at least one cross-listed or core graduate faculty member of WGSI will be a member of the thesis or supervisory committee of students in the program.

Doctoral Level

Admission Requirements
- Applicants who wish to enrol in the collaborative program must apply to and be admitted to both the collaborative program and a graduate degree program in one of the collaborating departments. Students must fulfill all the degree requirements in the home department.
- Applicants to the collaborative program should have a substantial undergraduate or graduate background in gender and feminist studies or an equivalent focus within a discipline. In exceptional cases, extensive work or activist experience which also requires academic knowledge of research on women and/or gender will also be considered.
- Two-page statement of research intent explaining how your program of study and specific research interests relate to women and gender studies at the doctoral level.
- Two letters of reference outlining your background in women and gender studies.

Program Requirements
- Programs of study should be planned in consultation with the CWGS Graduate Coordinator as well as the Coordinator of Graduate Studies in the student’s home graduate unit.
- Courses should be selected from the established cross-listed courses approved by the Graduate Coordinator of the collaborative program.
- A required 0.5 FCE selected from WGS 1000H, WGS 1001H, or WGS 002H.
- Any other 0.5 FCE course in WGSI.
- 1.0 FCE of courses cross-listed or approved with a focus on women/gender/feminist/sexuality/critical race/postcolonial studies.
- Regularly participate in the WGS Research Seminar. Students are required to present their work in the seminar at least once before graduating.
- Doctoral thesis dealing with a subject in the field of women and gender studies. Theses will be supervised and evaluated in the same manner as those in the home graduate unit. Normally, at least one cross-listed or core graduate faculty member with WGSI will be a member of the thesis or supervisory committee of students in the program.

Course List

Core Courses
- WGS 1000H Theories, Histories, Feminisms
- WGS 1001H Feminism, Transnationalism and Postcolonialism
- WGS 1002H Feminist Methodologies and Epistemologies

Elective Courses
- For courses offered by WGSI and cross-listed by the participating units offered in a particular year, check the collaborative program Web site: www.utoronto.ca/wgsi/collaborative.html.

Program Committee
- Piran, Niva - BA, PhD - Adult Education & Counselling Psychology
- McElhinny, Bonnie - BA, MA, PhD - Anthropology, Women and Gender Studies (Director)
- Coupland, Gary - BA, MA, PhD - Anthropology
- Keith, Alison - BA, PhD - Classics
- Havercroft, Barbara - MA, MA, PhD - Comparative Literature
- Wortley, Scot - BA, MA, PhD - Criminology
- Campbell, Elizabeth - BA, BEd, MEd, PhD - Curriculum, Teaching & Learning
- Testa, Bart – AM, BA, PhD - Cinema Studies
- Barton, Bruce - PhD - Drama
- Robins, William - BA, MPhil, PhD - English
- Thomas, Scott – BSc, MSc, PhD – Exercise Sciences
- Cozea, Angela - BA, MA, PhD - French
- Daniere, Amrita - AB, PhD - Geography
- Stock, Markus - MA, PhD - German
- Cockerill, Rhonda - BA, MA, PhD - Health Policy, Management & Evaluation
- Loeb, Lori - BA, MMSt, PhD - History
- Mai, Jens-Erik - PhD - Information
- Rittich, Kerry - MusBac, LLB, SJD - Law, Women and Gender Studies (Coordinator, Graduate Program)
Dyzenhaus, David - BA, LLB, DPhil, FRSC - Law
Harvey, Elisabeth Ruth - BA, MPhil, PhD - Medieval Studies
Beaulieu, Paul-Alain - BA, LLB, MA, PhD - Near & Middle Eastern Civilizations
Wynn, Francine - BA, MA, PhD - Nursing Science
Kremer, Philip - BSc, PhD - Philosophy
Skogstad, Grace - BA, MA, PhD - Political Science
Corey, Paul - BSc, MA, PhD - Public Health Sciences
Marshall, John - MA, PhD - Religion
Litvack, Andrea - BSW, MSW, CSW - Social Work
Wheaton, Blair - BA, MA, PhD - Sociology
Titchkosky, Tanya - MA, PhD - Sociology & Equity Studies in Education
Davidson, Robert - MA, PhD - Spanish
Boler, Megan - BA, PhD - Theory & Policy Studies in Education
Collaborative Programs

Women’s Health

Lead Faculty
Medicine

Participating Degree Programs
Anthropology – MA, MSc, PhD
Dentistry – MSc, PhD
English – MA, PhD
Exercise Sciences – MSc, PhD
Health Policy, Management and Evaluation – MSc, PhD
Immunology – MSc, PhD
Information – MI
Information Studies – PhD
Medical Science – MSc, PhD
Nursing Science – MN, PhD
Nutritional Sciences – MSc, PhD
Occupational Therapy – MSocOT
Pharmacology – MSc, PhD
Psychology – MA, PhD
Public Health Sciences – MHSoc, PhD
Rehabilitation Science – MA, PhD
Religion – MA, PhD
Women and Gender Studies – MA

Overview
The graduate programs listed above, together with the support of The Centre for Girls’ and Women’s Health and Physical Education, Women and Gender Studies Institute, and the International Programme on Reproductive and Sexual Health Law participate in the Collaborative Graduate Program in Women’s Health. The program’s objectives are two-fold:
1. to provide interdisciplinary training in women’s health research and practice for graduate students at the University of Toronto;
2. to facilitate mutually beneficial relationships between researchers and practitioners of women’s health across the University and its 10 affiliated teaching hospitals.

Students must be registered in the School of Graduate Studies through one of the participating graduate units in order to apply to the Collaborative Graduate Program in Women’s Health. Applicants must comply with the admission procedures of that unit.

Contact and Address
Web: www.womensresearch.ca/graduate/
E-mail: CPWH@womensresearch.ca
Telephone: (416) 351-3732 ext. 2331
Fax: (416) 351-3746

Women’s Health Collaborative Program
c/o Women’s College Research Institute
7th floor, 790 Bay Street
Toronto, Ontario M5G 1N8
Canada

Dr. Gillian Einstein, Director
Department of Psychology
100 St. George Street
University of Toronto
Toronto, Ontario M5S 3G3
Canada

Master’s Level

Admission Requirements
• Applicants must submit the following to the Program Committee of the Collaborative Graduate Program in Women’s Health:
  o A personal statement, a letter no longer than two pages describing relevant personal and/or professional experiences, a career plan, and motivation in seeking advanced training in women’s health.
  o Photocopies of application materials submitted to their home unit including curriculum vitae, transcripts, and letters of reference.

Program Requirements
• Complete the core course (CHL 5109H Gender and Health).
• Participate in at least 6 of the 8 monthly Student Research Seminar Series and in the Annual Women’s College Research Institute Graduate Student Research Day.
• In instances where home graduate units require a thesis, it is desirable, but not required, that this work be relevant to women’s health.
• Complete the program requirements of the Collaborative Program as well as those of the home graduate unit.

Doctoral Level

Admission Requirements
• Applicants must submit the following to the Program Committee of the Collaborative Graduate Program in Women’s Health:
  o A personal statement, a letter no longer than two pages describing relevant personal and/or professional experiences, a career plan, and motivation in seeking advanced training in women’s health.
  o Photocopies of application materials submitted to their home unit including curriculum vitae, transcripts, and letters of reference.

Program Requirements
• Complete the core course (CHL 5109H Gender and Health). Doctoral students who have satisfactorily completed the core course during their master’s program are not required to repeat the course during their doctoral program.
- Participate in at least 6 of the 8 monthly Student Research Seminar Series and in the Annual Women's College Research Institute Graduate Student Research Day.
- A student devises a research plan that builds interdisciplinary research skills in women's health. The plan is developed with guidance from the student's primary mentor (graduate supervisor from their home unit) and the co-mentor (a core faculty member of the collaborative program); both mentors must sign this plan.
- Dissertation on a topic relevant to women's health.

Course List

Core Course
CHL 5109H  Gender and Health

Program Committee
Boddy, Janice - BA, MA, PhD, FRSC - Anthropology
Seltzer, Ze'ev - DMD, BMedSc, Canada Research Chair - Dentistry
Harvey, Elisabeth Ruth - BA, MPhil, PhD - English
MacNeill, Margaret - BPHE, MA, PhD - Exercise Sciences
Fish, Eleanor - BSc, MPhil, PhD - Immunology
Stewart, Donna - MD, DPsych, FRCP - Medical Science
Bierman, Arlene - BA, MD, MS - Nursing Science
Ward, Wendy - BASc, MSc, PhD - Nutritional Sciences
Riddick, David – PhD – Pharmacology and Toxicology
Polatajko-Howell, Helene - BOT, MEd, PhD, OT(C) - Occupational Science & Occupational Therapy
Fleming, Alison - BS, PhD - Psychology
Polivy, Janet - BS, MA, PhD - Psychology
Einstein, Gillian - PhD - Public Health Science (Director)
Love, Rhonda - BA, MA, PhD - Public Health Sciences
Brooks, Dina - PhD, MSc, BScPT – Rehabilitation Science
Klassen, Pamela - BA, MA, MPhil, PhD - Religion
Morgan, Kathryn - BA, MA, MEd, PhD - Women & Gender Studies
Workplace Learning and Social Change

Lead Faculty
Ontario Institute for Studies in Education

Participating Degree Programs
Adult Education and Community Development – MA, MEd, PhD
Sociology in Education – MA, MEd, PhD, EdD

Overview
The Collaborative Program in Workplace Learning and Social Change is particularly suited to students interested in developing their understanding of work and learning trends in Canada and internationally, with a focus on the relationships between workplace learning and social change. The program has three intellectual objectives:
1. to situate workplace learning within broader social trends such as globalization, neo-liberalism and organizational restructuring;
2. to allow exploration of the connections between learning as an individual phenomenon and learning as a social/organizational and public policy phenomenon;
3. to highlight the learning strategies that seek to foster social change through greater equality of power, inclusivity, participatory decision-making and economic democracy.

Applicants to Adult Education and Community Development or Sociology in Education who are interested in participating in the Collaborative Program at either the master's or doctoral level must apply to and be accepted by both the departmental and the Collaborative Program. Applicants must also submit a statement of interest, as detailed below.

Upon successful completion of the requirements of the host department and the program, students receive the notation “Completed Collaborative Program in Workplace Learning and Social Change” on their transcript.

Contact and Address
Web: www.oise.utoronto.ca/depts/aecdcp/
E-mail: aeinfo@oise.utoronto.ca
Telephone: (416) 978-0683
Fax: (416) 926-4749

Collaborative Program in Workplace Learning and Social Change
Department of Adult Education and Counselling Psychology
Ontario Institute for Studies in Education
University of Toronto
252 Bloor Street West
Toronto, Ontario M5S 1V6
Canada

Master’s Level

Admission Requirements
• Applicants must apply to and be admitted to both the Collaborative Program and a graduate degree program in one of the collaborating departments.
• Applicants must submit a statement of interest which includes:
  o relevant personal and/or professional experiences and motivation in seeking training in Workplace Learning and Social Change (all applicants);
  o a brief outline of their proposed research project (thesis students);
  o indication of their preference of supervisor, if any (thesis students).

Program Requirements

Master of Education
• 5.0 full-course equivalents (FCE) as follows:
  o 0.5 core FCE (WPL 1131H);
  o 0.5 elective FCE in the area of workplace learning and social change;
  o 4.0 FCE to fulfill the degree requirements of the program of admission;
• No thesis requirement.

Master of Arts
• 3.0 full-course equivalents (FCE) for the Sociology in Education program or 4.0 FCE for the Adult Education and Community Development program, as follows:
  o 0.5 core FCE (WPL 1131H);
  o 0.5 elective FCE in the area of workplace learning and social change;
  o 2.0 FCE to fulfill the requirements of the Sociology in Education program or 3.0 FCE to fulfill the requirements of the Adult Education and Community Development program;
• In addition, thesis students will be required to complete a thesis which incorporates issues of workplace learning and social change. A member of the collaborative program core faculty will serve as supervisor or committee member.

Doctoral Level

Admission Requirements
• Applicants should apply to the collaborating degree program that corresponds most closely to their general background and interests.
• Applicants must submit a statement of interest which includes:
  o relevant personal and/or professional experiences and motivation in seeking training in Workplace Learning and Social Change (all applicants);
  o a brief outline of their proposed research project;
  o indication of their preference of supervisor, if any
Program Requirements

Doctor of Education
(offered to students in the Sociology in Education program only)

• 4.0 full-course equivalents (FCE), as follows:
  o 0.5 core FCE (WPL 3931H);
  o 0.5 elective FCE in the area of workplace learning and social change;
  o 3.0 FCE to complete the requirements of the program of admission;

• In addition, students will be required to complete a thesis which incorporates issues of workplace learning and social change. A member of the collaborative program core faculty will serve as supervisor or committee member.

Doctor of Philosophy

• 3.0 full-course equivalents (FCE), as follows:
  o 0.5 core FCE (WPL 3931H);
  o 0.5 elective FCE in the area of workplace learning and social change;
  o 2.0 FCE to complete the requirements of the program of admission;

• In addition, students will be required to complete a thesis which incorporates issues of workplace learning and social change. A member of the collaborative program core faculty will serve as supervisor or committee member.

Course List

Master’s Level Required Course
WPL 1131H Master’s Seminar in Workplace Learning and Social Change

Master’s Stream Electives
List of electives is subject to change.
AEC 1107H Developing and Leading High Performing Teams: Theory and Practice
AEC 1113H Gender and Hierarchy at Work
AEC 1117H Consulting Skills for Adult Educators
AEC 1119H Creating a Learning Organization
AEC 1131H Special Topics in Adult Education (Master’s)
AEC 1135H Practicum in Organization Development (Credit/No Credit)
AEC 1141H Organizations and the Adult Educator: Historical and Theoretical Perspectives on Organization Development
AEC 1145H Participatory Research in the Community and the Workplace
AEC 1148H An Introduction to Workplace, Organizational, and Economic Democracy
AEC 1150H Critical Perspectives on Organization Theory, Development, and Practice
AEC 1156H Power and Difference in the Workplace
AEC 1182H Teaching, Learning and Working in Non-profit and Public Sector Organizations
AEC 1186H Perspectives on Organizational Change
SES 2942H Education and Work
SES 2999H Special Topics in Sociological Research in Education
JTE 2912H Teachers’ Work: Classrooms, Careers, Cultures, and Change

Doctoral Level Required Course
WPL 3931H Doctoral Seminar in Workplace Learning and Social Change

Doctoral Stream Electives
List of electives is subject to change. Doctoral students can select an elective course from the list above OR take one of the following to meet their elective requirement:
AEC 3131H Special Topics in Adult Education (Doctoral)
AEC 3140H Post-Colonial Relations and Transformative Education
AEC 3182H Work, Technology and Knowledge Economy
AEC 3182H Citizenship Learning and Participatory Democracy
AEC 3183H Mapping Social and Organizational Relations in Education
SES 3999H Special Topics in Advanced Sociological Research in Education

Program Committee
Jackson, Nancy - BA, MA, PhD - Adult Education & Counselling Psychology
Laiken, Marilyn - BA, MA, PhD - Adult Education & Counselling Psychology
Mirchandani, Kiran - BA, MPhil, PhD - Adult Education & Counselling Psychology (Director)
Mojab, Shahrzad - BA, MEd, PhD - Adult Education and Counselling Psychology
Ng, Roxana - BA, MA, PhD - Adult Education and Counselling Psychology
Quarter, Jack - BA, MA, PhD - Adult Education and Counselling Psychology
Livingstone, David - BA, PhD - Sociology & Equity Studies in Education
Sawchuck, Peter - BSc, BEd, MA, PhD - Sociology & Equity Studies in Education
Joint Programs

The University of Toronto participates in several joint degree programs involving partnership between two or more graduate units or universities.
Advanced Design and Manufacturing

Faculty Affiliation
Applied Science and Engineering

Participating Degree Programs at U of T
Advanced Design and Manufacturing
– MEngDM

Overview
The Advanced Design and Manufacturing Institute (ADMI) is a joint program in design and manufacturing offered at the master’s level. It is offered through the joint efforts of five Ontario universities: University of Toronto, McMaster University, Queen’s University, the University of Waterloo, and the University of Western Ontario. The joint nature of the program ensures that the very best expertise available at each of the participating schools is integrated into the program’s course offerings.

Within the University of Toronto, the degree designation is Master of Engineering in Design and Manufacturing. The joint program, fully described on www.admicanada.com, is structured to address the engineering design, manufacturing, and management expertise and knowledge base required by young graduate professionals actively engaged within industry, government, and business.

Due to the part-time modular nature of the program, it is available only to Canadian citizens and permanent residents of Canada. The program allows individuals to participate in graduate studies over four-day weekend periods that can be effectively incorporated into a regular working schedule. The ADMI courses are offered at various locations within southern Ontario, typically Toronto, Waterloo, Mississauga, Hamilton, and London. Courses are offered throughout the year and do not conform to the regular university semester structures.

Contact and Address
For information regarding ADMI admission at the University of Toronto, visit in person:
Graduate Studies Office
Department of Mechanical and Industrial Engineering
Rosebrugh Building
Room 214, 164 College Street

For information on the program’s long term goals as well as details of other universities participating in ADMI, contact:
Mr. David Heaslip
Executive Director
Advanced Design and Manufacturing Institute
The Promontory II, Sheridan Science and Technology Park
Suite 250, 2655 North Sheridan Way
Mississauga, Ontario L5K 2P8
Canada

Web: www.admicanada.com
E-mail: info@admicanada.com
Telephone: (905) 855-9787
Fax: (905) 855-2199

Degree Programs
Advanced Design and Manufacturing

Master of Engineering in Design and Manufacturing

Minimum Admission Requirements
• Students entering the program at the University of Toronto are required to register in the Department of Mechanical and Industrial Engineering.
• Four-year bachelor's degree in engineering. Individuals with undergraduate and or graduate degrees in the related fields of computer science, physics, etc. are also invited to apply.
• Applicants will normally have three years of post-baccalaureate experience in industry or its equivalent.

Program Requirements
• 10 ADMI course offerings. Details at www.admicanada.com.
• Two of the required 10 courses may be replaced by an approved industry project, with University supervision.
• Whether or not a project is undertaken, program participants are required to complete a minimum of five courses from the Technology and Process Stream and a minimum of two from the Business and Management Stream.
• Participants must complete a minimum of two ADMI courses per calendar year to maintain program registration status.
Course List

A list of course offerings, along with course descriptions and a current schedule, is available on the ADMI Web site, www.admicanada.com.

Program Committee

The committee of the Advanced Design and Manufacturing Institute (ADMI) comprises eight members: six from the participating member universities plus two members from industry. The Executive Director of ADMI, D. Heaslip, chairs the Program Committee.

University of Toronto Program Committee

Representative:
Pierre Sullivan - BSME, MSME, PhD, PEng - Mechanical & Industrial Engineering
Biotechnology

Faculty Affiliation
Arts and Science, Management

Participating Degree Programs at U of T
Biotechnology - MBiotech

Overview
The Master of Biotechnology (MBiotech) program is an interdisciplinary course-based professional degree involving collaboration between the Departments of Cell and Systems Biology, Chemistry, and the Rotman School of Management.

Students in the MBiotech program come from wide and varied backgrounds with the common goal of pursuing a career in the biotechnology, financial, and pharmaceutical industries. The program is designed to meet the evolving needs of students and this global industry sector. Faculty is drawn from the Departments of Cell and Systems Biology, Chemistry, and Management. Guest lecturers from other faculties within the University of Toronto provide students with a truly interdisciplinary educational experience. Additional instruction from leaders of the biotechnology and pharmaceutical industries and from governmental agencies round out the broadly-based learning environment.

Contact and Address
Web: www.mbiotech.ca
E-mail: mbiotech@utoronto.ca
Telephone: (905) 569-4737
Fax: (905) 569-4738

Master of Biotechnology Program
University of Toronto at Mississauga
Room 2071, South Building
3 359 Mississauga Road North
Mississauga, Ontario L5L 1C6
Canada

Degree Programs

Biotechnology

Master of Biotechnology

Minimum Admission Requirements
• Four-year bachelor’s degree or its equivalent in any area of biological sciences, chemistry, engineering, or related field.
• Acceptable GRE scores and/or marks of A- or better in the last two years of study.

Program Requirements
• The program is a full-time, course-based master’s degree which is launched during the month of May each year.
• Students are required to complete 8 graduate full-course equivalents (FCE) over a 24-month period:
  o 5.0 to 6.0 FCE science credits (includes credits for Seminar and Placement)
  o 2.0 FCE business credits
  o up to 1.0 FCE elective credit
• An ongoing seminar series led by university, industry, and government specialists link all the participants with the academic, practical, and applied aspects of the program.

Course List

Required
A general description of each required course is posted on the Web site, www.mbiotech.ca.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BTC 1600H</td>
<td>Seminar in Bioscience/Biotechnology I</td>
</tr>
<tr>
<td>BTC 1610H</td>
<td>Seminar in Bioscience/Biotechnology II</td>
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<tr>
<td>BTC 1700H</td>
<td>Molecular Biology Laboratory</td>
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<tr>
<td>BTC 1710H</td>
<td>Protein Chemistry Laboratory</td>
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<tr>
<td>BTC 1800H</td>
<td>Biotechnology in Medicine</td>
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<td>BTC 1810H</td>
<td>Biotechnology and Corporations</td>
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<td>BTC 1820H</td>
<td>Biotechnology in Agriculture and Natural Products</td>
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<tr>
<td>BTC 1900Y</td>
<td>Work Term I</td>
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<tr>
<td>BTC 1910Y</td>
<td>Work Term II</td>
</tr>
<tr>
<td>BTC 1920Y</td>
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</tr>
<tr>
<td>BTC 2000H</td>
<td>Organizational Skills</td>
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<tr>
<td>BTC 2010H</td>
<td>Fundamentals of Managerial Concepts</td>
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<tr>
<td>BTC 2020H</td>
<td>Science, Technology, Organizations and Society</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

*Courses which may continue over a program. The course is graded when completed.
Joint Programs

Elective
BTC 1830H  Medical and Scientific Challenges in Marketing Therapeutics
BTC 2100Y  Topics in Biotechnology
BTC 2110H  Topics in Biotechnology
BTC 2120H  Topics in Biotechnology

Other graduate courses approved by the Program Directors.

Program Committee
Ulrich Krull - BSc, MSc, PhD, AstraZeneca Professor of Biotechnology - Chemistry
Angela Lange - BSc, PhD - Cell & Systems Biology
Scott Prosser - BSc, MSc, PhD - Chemistry (Director)
Leigh Revers - MA, DPhil - Cell & Systems Biology
   (Assistant Director)
Mihkel Tombak - BASc, MBA, AM, PhD - Management
J. Timothy Westwood - BSc, MSc, PhD - Cell & Systems Biology

Additional faculty are selected from the Departments of Cell and Systems Biology, Chemistry, the Rotman School of Management, related departments, as well as from experts in industry and government.
Financial Economics

Faculty Affiliation
Arts and Science, Management

Participating Degree Programs at U of T
Financial Economics – MFE

Overview
The Master of Financial Economics Program is a small enrolment joint program of the Department of Economics and the Rotman School of Management. Graduates of the program receive a professional degree called the Master of Financial Economics (MFE). The 16-month program is designed to equip talented students with the tools and skills required for successful careers in the financial sector. Its objectives are to provide students with a broad understanding of financial theory and the economic framework upon which that theory is based, both in the classroom and through actual experience working for firms in the financial sector.

Contact and Address
Web: www.economics.utoronto.ca/mfe
E-mail: fineco@chass.utoronto.ca
Telephone: (416) 978-8623
Fax: (416) 978-6713

Joint Master of Financial Economics Program
150 St. George Street
Department of Economics
University of Toronto
Toronto, Ontario M5S 3G7
Canada

Degree Programs
Financial Economics

Master of Financial Economics

Minimum Admission Requirements
• Applicants must have completed or must be in the final year of a four-year or honours degree program, or equivalent, with a B+ standing in the final year of that program.
• Strong preparation in economics, including full-year courses in both intermediate-level micro and macro theory, and full-year university-level courses in each of calculus and statistics. Previous training in finance is useful but not required. Achievement of these minimum requirements does not guarantee acceptance into the program. Preference is given to students who have completed, with high standing, advanced-level courses in any or all of economics, mathematics, and econometrics.

Program Requirements
• 6.0 full-course equivalents (FCE) or 12 half-courses, a 4-month summer internship, and an intensive mathematics, statistics, and accounting review.
• The core program consists of 2.0 FCE from the Department of Economics and 1.5 FCE from the Rotman School. The core courses drawn from the Department of Economics are the same as the core courses required for the MA degree in Economics plus ECO 2503H Financial Economics I. The core courses from the Rotman School (MGT 2306H Options and Futures Markets, MGT 2300H Corporate Financing, MGT 2302H Security Analysis and Portfolio Management) are drawn from the second-year MBA level courses and provide students with training in key areas of finance.
• In addition to the core courses, students are free to choose 2.5 FCE in electives from either the Department of Economics or the Rotman School, subject to the condition that at least 3.5 out of the 6.0 FCE must be taken from the Department of Economics. Students may choose from a long list of elective courses offered at the graduate level in Economics or the second-year MBA level (or higher) from the Rotman School, subject to availability.

Program Committee
Varouj Aivazian - BS, MA, PhD - Economics (Director)
Michelle Alexopoulos - BSc, MA, PhD - Economics
Gordon Anderson - BA, MSc, PhD - Economics
Jack Carr - BCom, MA, PhD - Economics
Maria Luisa Fuster - BA, MA, PhD - Economics
Chuan Goh - BSc, MA, PhD - Economics
Gregory Jump - BA, PhD - Economics
John Maheu - BA, MA, PhD - Economics
Ekaterina Malinova - BSc, MA, PhD - Economics
Angelo Melino - BA, PhD - Economics
Jordi Mondria - BA, MA, PhD - Economics
Andreas Park - MSc, MPhil, PhD - Economics
James Pesando - BA, MA, PhD - Economics
Adonis Yatchew - BA, MA, PhD - Economics
Xiaodong Zhu - BSc, MSc, PhD - Economics
Laurence Booth - BSc, MA, MBA, DBA - Management
Paul Halpern - BCom, MBA, PhD - Management
John Hull - BA, MA, MA, PhD - Management
Eric Kirzner, MBA - Management
Thomas McCurdy - BA, MA, PhD - Management
Alan White - BEng, MBA, PhD - Management
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