University of Toronto

School of Graduate Studies 2010/2011 Calendar

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; reviews the design and delivery of programs; 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 publication to learn more about the excellent programs we offer.

Here at the largest graduate school in Canada, over 14,400 graduate students are studying in an extraordinary range of scholarly fields. The enormous range of our programs makes it highly likely that we offer the focus and expertise you need to fulfil your aspirations for graduate study.

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.grad-school.utoronto.ca. That site is a gateway to the fields of study that you may choose.

With my best wishes,

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

About this Calendar

The *2010/2011 School of Graduate Studies Calendar* is effective for the academic period September 1, 2010 to August 31, 2011. References in the Calendar to "current academic year" refer to this period.

The SGS Calendar is edited annually, and is available in both online and printed editions. Every effort has been made to ensure the compatibility of both versions. **In the case of any discrepancy, the online version shall apply.** Any post-publication corrections and/or updates to the print edition of this Calendar will be posted as amendments on www.sgs.utoronto.ca/calendar/2010-11. Students are strongly advised to consult the Web page regularly to keep informed of changes.

While graduate administrators are available to provide advice and guidance, it must be clearly understood that **the ultimate responsibility rests with the student for completeness and correctness of program requirements and observance of regulations and deadlines**. Students are responsible for seeking guidance from a responsible officer if they are in any doubt; misunderstanidng or advice received from another student will not be accepted as cause for dispensation from any regulation, deadline, program or degree requirement.

The SGS Calendar is posted on the SGS Web site in July. 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 SGS 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, 2010 to August 31, 2011. 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 University will assume that he or she has done so. 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 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, M5S 1A8.

An expanded version of this Notice can be found at www.fippa.utoronto.ca/policy/nocx.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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Sessional Dates 2010/2011

2010

M August 2	Civic Holiday
M August 9	Registration for September session begins
August	Undergraduate course enrolment begins [1]
August 27	Last date for payment of tuition fees to meet registration deadline
M September 6	Labour Day
W September 8	Some formal graduate courses and seminars begin in the week of September 8 [2]
F September 10	Registration for September session ends; after this date, a late registration fee will be assessed
T September 15	Final date to submit PhD theses to SGS to avoid fee charges for 2010-2011
September 17	Course work must be completed and grades submitted for summer session courses and extended courses [3]
W September 22	Summer Session grades available for viewing by students on the Student Web Service
F October 1	Final date for receipt of degree recommendations and submission of any required theses for master's degrees for Fall Convocation without fees being charged for the September session. [4]
F October 1	Final date to submit final PhD thesis for Fall Convocation
W October 6	Final date to add full-year and September session courses
M October 11	Thanksgiving Day
W November 3	Final date to drop September session full- or half-courses without academic penalty
November	Fall Convocation information and dates are posted at www.convocation.utoronto.ca, choose Fall
M December 20	Winter break begins (for last day of classes before Winter break, consult graduate units concerned)

2011

M January 3	Most formal graduate courses and seminars begin the week of January 3 [2]
F January 7	Final date for registration of students beginning program in January session; after this date, a late registration fee will be assessed
F January 14	Coursework must be completed and grades submitted for September session courses [3]
F January 14	Final date to add January session courses [5]
M Jaunary 17	Final date to submit PhD theses without fee payment for January session
W January 19	September session grades available for viewing by students on the Student Web Service
F January 28	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]
F January 28	Final date for all students to request that their degrees be conferred in absentia in March
F January 28	September dual registrants must be recommended for the master's degree by this date to maintain their PhD registration [4]
M February 21	Family Day
F February 25	Final date to drop full-year or January session courses without academic penalty [5]
March	March graduation *in absentia information* is posted at www.convocation.utoronto.ca, choose March *in absentia*
April	For last day of winter classes, consult with unit concerned

Th April 21	For students obtaining degrees at June Convocation, coursework must be completed and grades submitted for full-year and January session courses
Th April 21	Final date for receipt of degree recommendations and submission of any required theses for master's degrees for June Convocation [4]
Th April 21	Final date for submission of final PhD thesis for students whose degrees are to be conferred at the June Convocation
Th April 21	Final date for degree recommendations of January dual registrants for the master's degree to maintain their PhD registration [4]
F April 22	Good Friday
M April 25	U of T Presidential Holiday (Easter Monday)
May	For first day of summer classes, consult graduate unit concerned
F May 6	Final date for registration for May session
F May 13	Final date to enrol in May-June or May-August session courses
F May 13	Coursework must be completed and grades submitted for full-year and January session courses (except for extended courses) [3]
W May 18	January Session grades available for viewing by students on the Student Web Service
M May 23	Victoria Day
June	Spring Convocation Information and Dates are posted at www.convocation.utoronto.ca, choose Spring
F June 3	Final date to drop May/June F section courses without academic penalty
F June 24	Final date to enrol in July-August courses [6]
F June 24	Final date to drop May-August session Y section courses without academic penalty
F July 1	Canada Day Holiday
F July 22	Final date to drop July-August S section courses without academic penalty
F July 22	Coursework must be completed and grades submitted for May/June F Section Courses [3]
W July 27	Grades for May/June F Section Courses available for viewing by students on the Student Web Service

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. Students should consult the undergraduate Arts and Science Calendar for enrolment and dates.

(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 Wednesday, September 8 to about 1 1/2 hours after sunset on Friday, September 10) or on Yom Kippur (from about 1 1/2 hours before sunset on Friday, Sepember 17 to about 1 1/2 hours after sunset on Sunday, September 19).

(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.

(7) Examinations in all teaching divisions should not be scheduled on the first and second days of Rosh Hashanah or on Yom Kippur or on the first two days and the last two days of Passover, which normally fall in April.

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
Diaspora and Transnational Stuides (CP)
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
Dynamics of Global Change (CP)
Economics
Educational Policy (CP)
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)

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 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)
Physical and Environmental Sciences
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)

Degree Programs

This graduate programs chart lists degree programs, collaborative programs, and diploma programs. All programs are offered full time unless otherwise noted.

Graduate Unit	Program	Degrees
Adult Education & Counselling Psychology	Adult Education & Community Development	MA^p, MEd^p, EdD* PhD^{flex}
	Counselling Psychology	MA^p, MEd^p, EdD, PhD^{flex}
Advanced Design & Manufacturing	Advanced Design & Manufacturing	MEngDM$^{p\sim}$
Aerospace Studies	Aerospace Science & Engineering	MASc, MEng^p, PhD
Anthropology	Anthropology	MA^p, MSc^p, PhD
Architecture, Landscape & Design	Architecture	MArch
	Landscape Architecture	MLA
	Urban Design	MUD
Art	History of Art	MA^p, PhD
	Visual Studies	MVS
Astronomy & Astrophysics	Astronomy & Astrophysics	MSc, PhD
Biochemistry	Biochemistry	MSc, PhD
Biomaterials & Biomedical Engineering	Biomedical Engineering	MASc, PhD
	Clinical Engineering	MHSc
Biotechnology	Biotechnology	MBiotech
Cell & Systems Biology	Cell & Systems Biology	MSc, PhD
Chemical Engineering & Applied Chemistry	Chemical Engineering & Applied Chemistry	MASc, MEng^p, PhD
Chemistry	Chemistry	MSc, PhD
Cinema Studies	Cinema Studies	MA
Civil Engineering	Civil Engineering	MASc, MEng^p, PhD
Classics	Classics	MA, PhD
Comparative Literature	Comparative Literature	MA, PhD
Computer Science	Applied Computing	MScAC
	Computer Science	MSc^p, PhD
Criminology	Criminology	MA^p, PhD
	Criminology/Law Combined Program	MA/JD
Curriculum, Teaching & Learning	Curriculum Studies & Teacher Development	MA^p, MEd^p, PhD^{flex}
	Elementary & Secondary Education	MT
	Second Language Education	MA^p, MEd^p, PhD^{flex}
Dentistry	Dentistry	MSc^p, PhD^{flex}
Drama	Drama	MA^p, PhD
East Asian Studies	East Asian Studies	MA, PhD

Note: All programs are offered full-time, unless otherwise noted
^{p} Part-time option available in addition to full-time program
$^{p\sim}$ Program only offered part-time
^{flex} Flexible-time program option available in addition to full-time program
*   Admissions suspended

Graduate Unit	Program	Degrees
Ecology & Evolutionary Biology	Ecology & Evolutionary Biology	MSc, PhD
Economics	Economics	MA, PhD
Economics	Economics/Law Combined Program	MA/JD, PhD/JD
Electrical & Computer Engineering	Electrical & Computer Engineering	MASc, MEng*p*, PhD
English	English	MA, PhD
	English/Law Combined Program	MA/JD
European, Russian, & Eurasian Studies	European, Russian & Eurasian Studies	MA
	European, Russian & Eurasian Studies/Law Combined Program	MA/JD
Exercise Sciences	Exercise Sciences	MSc*p*, PhD*flex*
Financial Economics	Financial Economics	MFE
Forestry	Forest Conservation	MFC*p*
	Forestry	MScF, PhD
French Language & Literature	French Language & Literature	MA*p*, PhD
Geography	Geography	MA*p*, MSc*p*, PhD
	Planning	MScPl*p*, PhD
	Urban Design Studies	MUDS*p*
Geology	Geology	MASc*p*, MSc*p*, PhD
Germanic Languages & Literatures	German Literature, Culture & Theory	MA*p*, PhD
Global Affairs	Global Affairs	MGA
	Global Affairs/Law Combined Program	MGA/JD
Health Policy, Management, & Evaluation	Health Administration	MHSc
	Health Administration/Nursing Combined Program	MHSc/MN
	Health Administration/Social Work Combined Program	MHSc/MSW
	Health Informatics	MHI
	Health Policy, Management & Evaluation	MSc*p*, PhD*p*
	Management of Innovation	MMI
History	History	MA*p*, PhD
History & Philosophy of Science & Technology	History & Philosophy of Science & Technology	MA*p*, PhD
Human Development & Applied Psychology	Child Study & Education	MA
	Developmental Psychology & Education	MA, MEd*p*, PhD*flex*
	School & Clinical Child Psychology	MA, PhD
Immunology	Immunology	MSc, PhD

Note: All programs are offered full-time, unless otherwise noted
p   Part-time option available in addition to full-time program
p~   Program only offered part-time
flex   Flexible-time program option available in addition to full-time program
*   Admissions suspended

Graduate Unit	Program	Degrees
Industrial Relations & Human Resources	Industrial Relations & Human Resources	MIRHR, PhD
Information	Information	MI*p*
	Information Studies	PhD
	Information/Law Combined Program	MI/JD
	Museum Studies	MMSt*p*
Italian Studies	Italian Studies	MA*p,* PhD
Laboratory Medicine & Pathobiology	Laboratory Medicine & Pathobiology	MSc, PhD
Law	Law	LLM*p*, MSL, SJD
Linguistics	Linguistics	MA, PhD
Management	Master of Business Administration	MBA*p~*
	Finance	MF*p*
	Management	MBA*p*, PhD
	Management/Engineering in the Jeffrey Skoll Combined Program	MBA/BASc
	Management/Law Combined Program	MBA/JD
Materials Science & Engineering	Materials Science & Engineering	MASc, MEng*p*, PhD
Mathematical Finance	Mathematical Finance	MMF
Mathematics	Mathematics	MSc*p*, PhD
Mechanical & Industrial Engineering	Mechanical & Industrial Engineering	MASc, MEng*p*, PhD
Medical Biophysics	Medical Biophysics	MSc, PhD
Medical Science	Bioethics	MHSc
	Biomedical Communications	MScBMC
	Medical Radiation Sciences	MHSc
	Medical Science	MSc, PhD
Medicine	Doctor of Medicine/Doctor of Philosophy Combined Program	MD, PhD
Medieval Studies	Medieval Studies	MA*p*, PhD
Molecular Genetics	Genetic Counselling	MSc
	Molecular Genetics	MSc, PhD
Music	Music	MA,*p* PhD*flex*
	Music Performance	MMus, DMA
Near & Middle Eastern Civilizations	Near & Middle Eastern Civilizations	MA, PhD
Nursing	Nursing Science	MN*p*, PhD*flex*
	Health Administration/Nursing Combined Program	MHSc/MN
Nutritional Sciences	Nutritional Sciences	MSc*p*, PhD

Note: All programs are offered full-time, unless otherwise noted
p   **Part-time option available in addition to full-time program**
p~   **Program only offered part-time**
flex   **Flexible-time program option available in addition to full-time program**
*   **Admissions suspended**

Graduate Unit	Program	Degrees
Occupational Science & Occupational Therapy	Occupational Therapy	MScOT
Pharmaceutical Sciences	Pharmaceutical Sciences	MSc^p, PhD^{flex}
Pharmacology & Toxicology	Pharmacology	MSc^p, PhD
Philosophy	Philosophy	MA^p, PhD
	Philosophy/Law Combined Program	PhD/JD
Physical & Environmental Sciences	Environmental Science	MEnvSc, PhD
Physical Therapy	Physical Therapy	MScPT
Physics	Physics	MSc, PhD
Physiology	Physiology	MSc, PhD
Political Science	Political Science	MA, PhD
	Political Science/Law Combined Program	MA/JD, PhD/JD
Professional Graduate Programs Centre	Management & Professional Accounting	MMPA
Psychology	Psychology	MA, PhD
Public Health Sciences	Community Health	MScCH^p
	Public Health Sciences	MPH^p, MSc^p, PhD^{flex}
Public Policy & Governance	Public Policy	MPP
Rehabilitation Science	Rehabilitation Science	MSc^p, PhD
Religion	Religion	MA^p, PhD
Slavic Languages & Literatures	Slavic Languages & Literatures	MA, PhD
Social Work	Social Work	MSW^p, PhD^{flex}
	Health Administration/Social Work Combined Program	MHSc/MSW
	Social Work/Law Combined Program	MSW/JD
Sociology	Sociology	MA^p, PhD
Sociology & Equity Studies in Education	Sociology in Education	EdD^p, MA^p, MEd^p, PhD^{flex}
Spanish	Spanish	MA^p, PhD
Speech-Language Pathology	Speech-Language Pathology	MHSc^p, MSc, PhD
Statistics	Statistics	MSc^p, PhD
Theory & Policy Studies in Education	Educational Administration	MA^p, MEd^p, EdD, PhD^{flex}
	Higher Education	MA^p, MEd^p, EdD^p, PhD^{flex}
	History & Philosophy of Education	MA^p, MEd^p
Women & Gender Studies	Women & Gender Studies	MA

Note: All programs are offered full-time, unless otherwise noted
^{p} Part-time option available in addition to full-time program
$^{p\sim}$ Program only offered part-time
^{flex} Flexible-time program option available in addition to full-time program
*   Admissions suspended

Collaborative Programs

Program	Participating Degree Programs	Degrees
Aboriginal Health	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	MPH, PhD
	Sociology in Education	MA, MEd, EdD, PhD
Addiction Studies	Adult Education & Community Development	MA, MEd, EdD, PhD
	Anthropology	MA, MSc, PhD
	Biomedical Engineering	MASc, 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 & Gender Studies	MA
Aging, Palliative & Supportive Care Across The Life Course	Adult Education & 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 & Evaluation	MSc, PhD
	Information	MI, PhD
	Medical Science	MSc, PhD
	Nursing Science	MN, PhD
	Pharmaceutical Sciences	MSc, PhD
	Psychology	MA, PhD
	Public Health Sciences	MPH, MSc, PhD
	Rehabilitation Science	MSc, PhD
	Social Work	MSW, PhD
	Sociology	MA, PhD
	Speech-Language Pathology	MSc, PhD
	Women & Gender Studies	MA
Ancient & Medieval Philosophy	Classics	PhD
	Medieval Studies	PhD
	Philosophy	PhD
Ancient Greek & Roman History	Classics (University of Toronto)	PhD
	History (York University)	PhD

Program	Participating Degree Programs	Degrees
Asia-Pacific Studies	Anthropology	MA
	East Asian Studies	MA
	Economics	MA
	Geography	MA
	History	MA
	Management	MBA
	Planning	MScPl
	Political Science	MA
	Public Policy	MPP
	Social Work	MSW
	Sociology	MA
	Women & Gender Studies	MA
Astrophysics	Astronomy & Astrophysics	MSc
	Physics	MSc
Bioethics	Health Administration	MHSc
	Health Policy, Management & Evaluation	MSc, PhD
	Law	LLM, SJD
	Medical Science	MSc, PhD
	Nursing Science	MN, PhD
	Philosophy	MA, PhD
	Public Health Sciences	MPH, MSc, PhD
	Rehabilitation Science	MSc, PhD
	Religion	MA, PhD
	Social Work	PhD
Biomedical Engineering	Biochemistry	MSc, PhD
	Biomedical Engineering	MASc, PhD
	Chemical Engineering & Applied Chemistry	MASc, PhD
	Chemistry	MSc, PhD
	Dentistry	MSc, PhD
	Electrical & Computer Engineering	MASc, PhD
	Laboratory Medicine & Pathobiology	MSc, PhD
	Materials Science & Engineering	MASc, PhD
	Mechanical & Industrial Engineering	MASc, PhD
	Medical Science	MSc, PhD
	Pharmaceutical Sciences	MSc, PhD
	Physics	MSc, PhD
	Physiology	MSc, PhD
	Rehabilitation Science	MSc, PhD
Biomedical Toxicology	Ecology & Evolutionary Biology	MSc, PhD
	Laboratory Medicine & Pathobiology	MSc, PhD
	Medical Science	MSc, PhD
	Nutritional Sciences	MSc, PhD
	Pharmaceutical Science	MSc, PhD
	Pharmacology	MSc, PhD
Biomolecular Structure	Biochemistry	PhD
	Chemistry	PhD
	Medical Biophysics	PhD
	Molecular Genetics	PhD

Program	Participating Degree Programs	Degrees
Book History & Print Culture	Classics	MA, PhD
	Comparative Literature	MA, PhD
	East Asian Studies	MA, PhD
	English	MA, PhD
	French Language & Literature	MA, PhD
	History of Art	MA, PhD
	History	MA, PhD
	History & Philosophy of Science & Technology	MA, PhD
	Information	MI, PhD
	Italian Studies	MA, PhD
	Medieval Studies	MA, PhD
	Museum Studies	MMSt
	Music	MA, PhD
	Religion	MA, PhD
Cardiovascular Sciences	Biomedical Engineering	MASc, PhD
	Dentistry	MSc, PhD
	Exercise Sciences	MSc, PhD
	Health Policy, Management & Evaluation	MSc, PhD
	Laboratory Medicine & 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
Community Development	Adult Education & Community Development	MA, MEd
	Counselling Psychology	MA, MEd
	Nursing Science	MN
	Planning	MScPL
	Public Health Sciences	MPH
	Social Work	MSW
Comparative, International & Development Education	Adult Education & Community Development	MA, MEd, PhD
	Curriculum Studies & Teacher Development	MA, MEd, PhD
	Educational Administration	MA, MEd, EdD, PhD
	Higher Education	MA, MEd, EdD, PhD
	History & Philosophy of Education	MA, MEd
	Second Language Education	MA, MEd, EdD, PhD
	Sociology in Education	MA, MEd, EdD, PhD
Developmental Biology	Biochemistry	MSc, PhD
	Cell & Systems Biology	MSc, PhD
	Dentistry	MSc, PhD
	Immunology	MSc, PhD
	Laboratory Medicine & Pathobiology	MSc, PhD
	Molecular Genetics	MSc, PhD
	Physiology	MSc, PhD

Program	Participating Degree Programs	Degrees
Diaspora & Transnational Studies	Anthropology	MA, MSc, PhD
	Cinema Studies	MA
	Drama	MA, PhD
	English	MA PhD
	Geography	MA, MSc, PhD
	German Literature, Culture & Theory	MA, PhD
	History	MA, PhD
	Political Science	MA, PhD
	Religion	MA, PhD
	Sociology	MA, PhD
	Sociology in Education	MA, MEd, EdD, PhD
	Spanish	MA, PhD
	Women & Gender Studies	MA
Dynamics of Global Change	Adult Education & Community Development	PhD
	Anthropology	PhD
	Computer Science	PhD
	Economics	PhD
	Education Administration	PhD
	Geography	PhD
	Health Policy, Management & Evaluation	PhD
	Law	SJD
	Management	PhD
	Medical Science	PhD
	Political Science	PhD
Editing Medieval Texts	Classics	PhD
	English	PhD
	French Language & Literature	PhD
	History	PhD
	Italian Studies	PhD
	Medieval Studies	PhD
	Music	PhD
	Philosophy	PhD
	Religion	PhD
	Spanish	PhD
Educational Policy	Adult Education & Community Development	MA, MEd, PhD
	Curriculum Studies & Teacher Development	MA, MEd, PhD
	Developmental Psychology & Education	MA, MEd, PhD
	Educational Administration	MA, MEd, EdD, PhD
	Higher Education	MA, MEd, EdD, PhD
	History & Philosophy of Education	MA, MEd
	Second Language Education	MA, MEd, PhD
	Sociology in Education	MA, MEd, EdD, PhD
Environment & Health	Geography	MA, MSc, PhD
	Medical Science	MSc, PhD
	Planning	MScPl, PhD
	Public Health Sciences	MPH, MSc, PhD
	Women & Gender Studies	MA
Environmental Engineering	Chemical Engineering & Applied Chemistry	MASc, MEng, PhD
	Civil Engineering	MASc, MEng, PhD
	Materials Science & Engineering	MASc, MEng, PhD
	Mechanical & Industrial Engineering	MASc, MEng, PhD

Program	Participating Degree Programs	Degrees
Environmental Studies	Adult Education & Community Development	MA, MEd, PhD
	Anthropology	MA, MSc, PhD
	Chemical Engineering & Applied Chemistry	MASc, MEng, PhD
	Chemistry	MSc, PhD
	Counselling Psychology	MA, MEd, EdD, PhD
	Ecology & 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	MScPl, PhD
	Political Science	MA, PhD
	Religion	MA, PhD
	Sociology	MA, PhD
	Sociology in Education	MA, MEd, EdD, PhD
	Women & Gender Studies	MA
Ethnic & Pluralism Studies	Anthropology	MA, PhD
	Educational Administration	MA, MEd, EdD, PhD
	European, Russian & Eurasian Studies	MA, PhD
	Geography	MA, PhD
	History	MA, PhD
	History & Philosophy of Education	MA, MEd
	Industrial Relations & 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, EdD, PhD
	Women & Gender Studies	MA, PhD
Genome Biology & Bioinformatics	Biochemistry	PhD
	Biomedical Engineering	PhD
	Cell & Systems Biology	PhD
	Chemical Engineering & Applied Chemistry	PhD
	Computer Science	PhD
	Ecology & Evolutionary Biology	PhD
	Laboratory Medicine & Pathobiology	PhD
	Medical Biophysics	PhD
	Medical Science	PhD
	Molecular Genetics	PhD
Geology & Physics	Geology	MSc, PhD
	Physics	MSc, PhD
Global Health	Anthropology	PhD
	Health Policy, Management & Evaluation	PhD
	Law	SJD
	Nursing Science	PhD
	Pharmaceutical Sciences	PhD
	Political Science	PhD
	Public Health Sciences	PhD
	Rehabilitation Science	PhD

Program	Participating Degree Programs	Degrees
Health Care, Technology & Place	Biomedical Engineering	PhD
	English	PhD
	Health Policy, Management & Evaluation	PhD
	Mechanical & Industrial Engineering	PhD
	Medical Science	PhD
	Nursing Science	PhD
	Pharmaceutical Sciences	PhD
	Public Health Sciences	PhD
	Rehabilitation Science	PhD
	Social Work	PhD
Health Services & Policy Research	Exercise Sciences	MSc, PhD
	Health Policy, Management & 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
International Relations[×]	Anthropology	MA
	Economics	MA
	Geography	MA
	Health Policy, Management & Evaluation	MSc
	History	MA
	Political Science	MA
	Religion	MA
	Sociology	MA
	Women & Gender Studies	MA
Jewish Studies	Anthropology	MA, PhD
	Classics	MA, PhD
	Comparative Literature	MA
	English	MA, PhD
	European, Russian & Eurasian Studies	MA
	German Literature, Culture & Theory	MA, PhD
	History	MA, PhD
	History of Art	MA, PhD
	Medieval Studies	MA, PhD
	Near & Middle Eastern Civilizations	MA, PhD
	Philosophy	MA, PhD
	Political Science	MA, PhD
	Religion	MA
	Slavic Languages & Literatures	MA, PhD
	Sociology	MA, PhD
	Women & Gender Studies	MA

[×]   **Admissions ceased**

Program	Participating Degree Programs	Degrees
Knowledge Media Design	Architecture	MArch
	Computer Science	MSc, PhD
	Curriculum Studies & Teacher Development	MA, MEd, PhD
	History & Philosophy of Education	MA, MEd
	Information	MI
	Information Studies	PhD
	Landscape Architecture	MLA
	Mechanical & Industrial Engineering	MASc, MEng, PhD
	Medical Science	MSc, PhD
	Sociology	MA, PhD
	Urban Design	MUD
	Visual Studies	MVS
Management & Economics	Economics	PhD
	Management	PhD
Neuroscience	Biochemistry	MSc, PhD
	Biomedical Engineering	MASc, MSc, PhD
	Cell & Systems Biology	MSc, PhD
	Dentistry	MSc, PhD
	Developmental Psychology & Education	MA, PhD
	Laboratory Medicine & Pathobiology	MSc, PhD
	Medical Biophysics	MSc, PhD
	Medical Science	MSc, PhD
	Molecular Genetics	MSc, PhD
	Pharmaceutical Sciences	MSc, PhD
	Pharmacology	MSc, PhD
	Physiology	MSc, PhD
	Psychology	MA, PhD
	Rehabilitation Science	MSc, PhD
	Speech-Language Pathology	MSc, PhD
Optics	Chemistry	MSc
	Electrical & Computer Engineering	MASc
	Materials Science & Engineering	MASc
	Physics	MSc

Program	Participating Degree Programs	Degrees
Sexual Diversity Studies	Anthropology	MA, MSc, PhD
	Cinema Studies	MA
	Classics	MA, PhD
	Counselling Psychology	MA, MEd, EdD, PhD
	Criminology	MA, PhD
	Curriculum Studies & Teacher Development	MA, MEd, 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 & Philosophy of Education	MA, MEd
	History of Art	MA, PhD
	History & Philosophy of Science & Technology	MA, PhD
	Information	MI
	Information Studies	PhD
	Italian Studies	MA, PhD
	Law	LLM, MSL, SJD
	Linguistics	MA, PhD
	Medieval Studies	MA, PhD
	Museum Studies	MMSt
	Near & 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 in Education	MA, MEd, EdD, PhD
	Visual Studies	MVS
	Women & Gender Studies	MA
South Asian Studies	Anthropology	MA, MSc, PhD
	East Asian Studies	MA, PhD
	English	MA, PhD
	Geography	MA, PhD
	History	MA, PhD
	Music	MA, PhD
	Political Science	PhD
	Religion	MA, PhD
	Sociology in Education	MA, MEd, EdD, PhD
	Women & Gender Studies	MA

Program	Participating Degree Programs	Degrees
Women & Gender Studies	Adult Education & 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 & Teacher Development	MA, MEd, EdD, PhD
	Drama	MA, PhD
	Educational Administration	MA, MEd, EdD, PhD
	English	MA, PhD
	Exercise Sciences	MSc, PhD
	French Language & Literature	MA, PhD
	Geography	MA, MSc, PhD
	Germanic Literature, Culture & Theory	MA, PhD
	Health Administration	MHSc, MSc, PhD
	Health Policy, Management & Evaluation	MSc, PhD
	Higher Education	MA, MEd, EdD, PhD
	History	MA, PhD
	History & Philosophy of Education	MA, MEd
	Information	MI, PhD
	Law	LLM, SJD
	Medieval Studies	MA, PhD
	Near & Middle Eastern Civilizations	MA, PhD
	Nursing Science	MN, PhD
	Philosophy	MA, PhD
	Political Science	MA, PhD
	Public Health Sciences	MPH, 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
Women's Health	Anthropology	MA, MSc, PhD
	Dentistry	MSc, PhD
	English	MA, PhD
	Exercise Sciences	MSc, PhD
	Health Policy, Management & Evaluation	MSc, PhD
	Immunology	MSc, PhD
	Information	MI, PhD
	Medical Science	MSc, PhD
	Nursing Science	MN, PhD
	Nutritional Sciences	MSc, PhD
	Occupational Therapy	MScOT
	Pharmacology	MSc, PhD
	Psychology	MA, PhD
	Public Health Sciences	MPH, PhD
	Rehabilitation Science	MSc, PhD
	Religion	MA, PhD
	Women & Gender Studies	MA
Workplace Learning & Social Change	Adult Education & Community Development	MA, MEd, PhD
	Sociology in Education	MA, MEd, EdD, PhD

Diploma Programs

Graduate Unit	Program Name	Diploma
Information	Advanced Study in Information Studies	GDipISt*ᵖ*
Nursing Science	Master of Nursing (Nurse Practitioner Field) Concurrent Diploma in Anesthesia Care	GDipNPAC
	Post Master of Nursing (Nurse Practitioner Field) Diploma in Anesthesia Care	GDipNPAC
	Post-Master's Nurse Practitioner	DipNP (PMNP)
Professional Graduate Programs Centre	Investigative & Forensic Accounting	DIFA
Social Work	Advanced Diploma in Social Service Administration	DSSA

Note: All programs are offered full-time, unless otherwise noted
ᵖ **Part-time option available in addition to full-time program**
ᵖ~ **Program only offered part-time**
flex **Flexible-time program option available in addition to full-time program**
* **Admissions suspended**

General Regulations

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 over 80 graduate units (departments, centres, and institutes), offering more than 150 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 maintaining 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 and regulatory 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; a senior representative 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. Some units offer graduate diploma programs.

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 graduate unit (informally known as "home" 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. These administrative units have been relocated to other Faculties, such as Arts and Science, Medicine, or OISE. 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 and Diploma 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 degree 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 (known as a "home" unit) 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 indicating completion of the collaborative program, in addition to the degree.

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 offer 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 of Graduate Studies. 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 perform all duties of a full member, but may only take on new supervision with the approval of the graduate chair or director.

Student Categories

The University offers admissions to three categories of graduate students:
1. Degree or Diploma Student
2. Special (non-degree) Student
3. Visiting 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. See Degree Regulations for specific details.

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 registered 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 may be admitted as part-time Special Students.

Visiting Student

Visiting students are registered under special arrangements in the School of Graduate Studies and are not admitted to a degree.

Application for Admission to a Degree Program

Procedures

1. Formal application for admission should be submitted using the SGS Online Admissions Application (exceptions: MBA, MF, MMPA, and DIFA which have specialized application systems; MScPT, MScOT, and the MHSc in Speech-Language Pathology which participate in a common provincial application for professional rehabilitation medicine programs) accessible through the graduate unit Web site. 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 forwarded as part of 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.

Most programs commence in September. Some graduate units offer January admission. A few programs commence at other times. Consult the graduate unit concerned for more information.

Financial Assistance

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

Acceptance

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.

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.

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.

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 but must register.

Admission Policies and Procedures

The University's admission policies 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 School of Graduate Studies 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.

Academic Requirements for Admission

All applicants will be considered on their individual merits for admission to any graduate program at the University of Toronto.

Master's Programs

An appropriate bachelor's degree with high academic standing from a recognized university is required. Other qualifications may be specified by the graduate unit. See Admission Regulations and Degree Regulations for further details.

Doctor of Philosophy Programs

An appropriate master's degree or, in some programs, an appropriate bachelor's degree, with high academic standing from a recognized university is required. See Admission Regulations and Degree Regulations for further details.

Other Doctoral Programs

Normally, an appropriate master's degree with high academic standing from a recognized university is required. See appropriate graduate unit entry for specific details. See Admission Regulations and Degree Regulations for further information.

See Degree Regulations for specific details on degree transfers (Master's to PhD and PhD to Master's).

Diploma Programs

The same Admission Policies and Procedures as those for master's programs apply for diploma programs that require a master's degree for admission. Other qualifications may be specified by a graduate unit depending on the particular diploma program and type. See Admission Regulations for further information.

Special Students

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 bachelor's degree with good academic standing from a recognized university. See Admission Regulations for further details.

Applicants accepted as Special Student–Part Time must hold an appropriate bachelor's degree, or its equivalent, from a recognized university. See Admission Regulations for further details.

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.

Students Holding Graduate Degrees Registered as Graduate Students

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.

Mature Students

Applicants who graduated five or more years ago but without achieving sufficiently high standing for admission to a graduate program may be considered for admission if, since graduation, they have done significant intellectual work and/or made a significant professional contribution which can be considered equivalent to a higher academic standing. This contribution and its impact on the profession must be detailed and documented (e.g., publications, research, professional advancement, development of new skills, responsibility, etc.) and presented as part of the application. Such applicants may be considered for admission if they have achieved qualifications at least equivalent to those stated in the preceding sections and if a graduate unit so recommends.

Eligibility of Members of Teaching and Administrative Staff

Members of teaching or administrative staff of the University or its federated or affiliated colleges who are engaged in graduate instructional and/or graduate administrative activities within the graduate unit offering the graduate program to which they are seeking admission are normally not eligible to be graduate students within that graduate unit 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 or staff member's usual work that academic impartiality is not compromised.

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 English Language Facility tests listed in the Admission Regulations. Test results that are older than two years at the time of application cannot be accepted. In these circumstances, the applicant must retake the English language facility test.

Admission Regulations

All applicants to the School of Graduate Studies must meet the minimum standards required by the School. However, satisfying minimum standards does not guarantee admission, since the number of qualified applicants far exceeds the number of places available. As a result, many well-qualified applicants cannot be accommodated.

Master's Programs

The minimum requirements are:
1. An appropriate bachelor's degree that has appropriate breadth, depth and, where appropriate, an affinity to the graduate program to which the applicant is seeking admission as determined by the School of Graduate Studies.
2. An average grade equivalent to at least 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 may be specified by a graduate unit.

Doctor of Philosophy Programs

The minimum requirements are:
1. An appropriate degree is a master's degree or, in some programs, an appropriate bachelor's degree, with high academic standing from a recognized university.
2. An average grade equivalent to a 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.
3. Direct entry from a bachelor's degree to a PhD program may be available when permitted by the graduate unit. For direct entry applicants, an average grade equivalent to A- or better in courses in the relevant discipline is required.
4. At least two letters of reference are required.
5. Other qualifications may be specified by a graduate unit.

Diploma Programs

There are several types of graduate diplomas including master's level and post-master's level. Some diploma programs involve concurrent registration with the degree program. The minimum requirements are:
1. An appropriate degree for a master's level or concurrent master's diploma is a bachelor's degree.
2. An appropriate degree for a post-master's diploma is a master's degree.
3. Other qualifications may be specified by a graduate unit.

Special Students

Before applying, applicants should identify the courses they wish to take and obtain approval from the graduate unit offering the course.
1. Full-time Special Students must have obtained an average grade in the final year (or over senior courses)

in a bachelor's degree program equivalent to mid-B or better.

2. Part-time Special Students who are accepted with less than mid-B standing are not normally considered admissible to a master's degree at a later date.
3. At least two letters of reference are required for full-time Special Students.
4. Other qualifications may be specified by a graduate unit.

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 Tests

The English Language Facility requirements may be satisfied by using one of the following tests. Minimum scores are listed; 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
USA, 08541-6151
Web: www.toefl.org

The TOEFL examination is offered in two formats: the traditional paper-based format (only offered on specific dates in a limited number of countries) 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- based test must include the writing and speaking sections. 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 graduate unit to which you are applying to determine if a higher minimum score is required.		
Academic Division	**Paper-Based Test and TWE**	**Internet-Based Test including Writing and Speaking Sections**
Humanities	Overall score 580 TWE 5	Overall score 93 Writing 22 Speaking 22
Social Sciences	Overall score 580 TWE 5	Overall score 93 Writing 22 Speaking 22
Physical & Engineering Sciences	Overall score 580 TWE 4	Overall score 93 Writing 22 Speaking 22
Life Sciences	Overall score 580 TWE 5	Overall score 93 Writing 22 Speaking 22

Michigan English Language Assessment Battery (MELAB)

English Language Institute (ELI)
University of Michigan
Ann Arbor, Michigan
USA, 48109-1057
Web: www.lsa.umich.edu/eli/testing/melab
Required score: 85

International English Language Testing System (IELTS)

University of Cambridge Local Examinations Syndicate
1 Hills Road
Cambridge, U.K.
CB1 2EU
Web: www.ielts.org
Applicants may also contact their nearest British Council Office. Please note that applicants must take the academic module of this test.
Required score: 7.0

The Certificate of Proficiency in English (COPE)

COPE Testing Limited
429 Danforth Avenue
PO Box 462
Toronto, Ontario
M4K 1P1
E-mail: info@copetest.com
Web: www.copetest.com
Required score: 76 minimum total with at least 22 in each component and 32 in writing

International ESL-Academic Preparation Level 60 (Advanced)

School of Continuing Studies
University of Toronto
158 St. George Street
Toronto, Ontario
M5S 2V8
E-mail: scs.registrar@utoronto.ca
Web: www.learn.utoronto.ca/esl
Required score: B

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. Consult the relevant graduate unit listing in the Degree and Diploma Programs by Graduate Unit section of this Calendar or on the Web at www.sgs.utoronto.ca/programs.htm for additional information.

Minimum Period of Registration

All academic programs (full-time and part-time) 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.

Normal Program Length

Normal program length refers to the period of time (sessions or academic years) that is normally required for a student to complete a program. Actual time to complete a program may vary for individual students. See each program entry for normal program length.

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.

Time Limit

All degree requirements must be completed within a specific period of time. The time limit for a degree is the maximum period of registration permitted for the completion of the degree. See Degree Regulations and Lapsed Status section for more information.

Registration and Enrolment

Registration is the process by which a person has established, for an academic period, an active association with a program of study.

Enrolment is the approved engagement by a student in a course or other unit or component of a program of study.

The complete policy on Association, Registration and Admission is available on the University of Toronto Web site at www.governingcouncil.utoronto.ca/policies/assoc.htm.

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/start/reg_enrol.htm.

Students registering in programs offered by the Ontario Institute for Studies in Education of the University of Toronto (OISE) should consult OISE 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. New students will receive a copy of the School of Graduate Studies Calendar. Continuing students should refer to the SGS Calendar on the SGS Web site.

A student is considered to be registered as soon as academic and incidental fees are paid or a fees arrangement has been made.

Full-time Studies[1]

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.

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1 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.

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.

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. A switch from full-time to part-time status is not permitted once the minimum period of registration for a program has been completed.

Flexible-time PhD Programs

Some PhD programs offer a flexible-time PhD program option in addition to the full-time PhD program. See Degree Regulations, Doctor of Philosophy, Flexible-time PhD Programs section for further information.

Summer Session Courses

All students, whether attending formal courses or engaging in research or project work, must register for the Summer Session. Students may view summer session registration instructions on the SGS Web site. 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. 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.

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

Master's Students

Failure to register as required will cause a master's student's registration to lapse. See Lapsed Status and Reinstatement below.

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. A switch from full-time to part-time status is not permitted once the minimum period of registration for a program has 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.

Professional Doctoral Students and Flexible-time PhD Program Students

All doctoral students must register annually until all degree requirements have been fulfilled. Students registered in professional doctoral programs or flexible-time PhD programs who do not register as required will cause their registration to lapse. See Lapsed Status and Reinstatement below.

PhD Students
(excluding flexible-time PhD students)

PhD students are required to maintain continuous registration, unless on approved leave, until all the degree requirements are completed. PhD students are not eligible for Lapsed Status. PhD students who do not register in any year prior to the time limit for the PhD degree and who request registration later, with graduate unit and SGS approvals, may be eligible to register if request is

made before the time limit; if approved for registration, these students will be subject to fee payment for years since last registration in which they did not register.

Students who have not completed the program requirements by the time limit for the PhD degree may apply for a PhD program extension (see Extensions section below for further details; see also PhD Degree Regulations for time limits and other information). PhD students must be registered in the year prior to the year in which the extension would occur. Registration beyond the four-year extension period is not permitted.

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

Master's, Professional Doctoral Students, and Flexible-time PhD Students

In exceptional circumstances, a master's or professional doctoral degree or flexible-PhD student who did not 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.

PhD Students
(excluding flexible-time PhD students)

In exceptional circumstances, a PhD student who has not completed all the requirements for the degree within the time limit for PhD, is eligible to apply for four one-year extensions. The first two extension requests require graduate unit approvals; the second two require graduate unit and School of Graduate Studies approvals. To qualify 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.

PhD students on extension are registered full-time – see information on tuition fees for PhD students on Extension in Fees and Financial Support section below. PhD students who do not register after the time limit and who request an extension later, but within the four-year extension period, may be approved for extension. Students receiving approved extensions under these circumstances are subject to fee payment for extension

years in which they did not register in addition to fees for the approved extension year. No registration beyond the four-year extension period will be permitted.

Lapsed Status and Reinstatement
(Master's, Professional Doctoral, and Flexible-time PhD students only. Lapsed Status is not available to full-time PhD students. See Continuity of Registration section above).

If a master's or professional doctoral or flexible-time PhD student does not 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, such students 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 for master's, professional doctoral, and flexible-time PhD students. 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 did not 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 master's, professional doctoral, or flexible-time PhD student may not register further. Registration in the program is considered to have lapsed. In special circumstances, a student may be reinstated once only, for a maximum of 12 months.

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-couse) 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 Withdrawal 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.

Policy on Graduate Courses and Other Academic Activities

(See SGS Guidelines on Graduate Courses and Other Academic Activities on SGS Web site)

Graduate Courses

All graduate programs are composed of a number of academic requirements that include graduate courses and other academic activities. A graduate **course** is a discrete, time-delimited unit of instructional/learning activity identified by a **course code**, in which students **enrol**. Graduate courses must be approved according to the relevant SGS policies and procedures. All graduate courses must have an instructor in charge who has a graduate faculty appointment in the graduate unit(s) responsible for the course. A **full graduate course** (course weight of one full course equivalent or 1.0 FCE) should involve a minimum of 48-72 hours of organized activity (e.g. 2 lectures or 3 hours of laboratory work a week over two sessions); a **half course** (0.5 FCE) should require approximately half this time commitment. Normally the beginning and end dates for courses should coincide with the beginning and end dates of University sessions.

Graduate courses may take many forms and their timing may not always coincide with the normal beginning and end of classes in each session.

Course Codes

All graduate courses have course codes consisting of:
- a prefix associated with the academic unit or program (three letters);
- a four-digit course number; and
- a suffix associated with the course weight (alpha character).

Normally, course weight is measured in full-course equivalencies (FCE) and is indicated via a Y or H suffix:
Y Full course: 1.0 FCE normally taken over two sessions
H Half Course: 0.5 FCE normally taken over one session

Course weight variations occur in some graduate programs. These variations often take the form of modular courses. A **modular course** is a course that has a non-standard weight, may have non-standard start and end dates within a session, and is usually combined with other course components so that the total equals 0.5 or 1.0 FCE. The minimum contact hour requirement applies to modular courses, equivalent to course weight.

Other Academic Activities

Graduate programs may have a variety of requirements that are not courses but constitute other academic activities which have been approved according to SGS policies and procedures. Some common non-course academic activities are major research papers, comprehensive examinations, practica, internships, etc.

Enrolment Policies and Procedures

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 Course Add/Drop Form or by using the Student Web Service (if the department permits access). In order to avoid academic penalties, courses must be dropped by the following deadlines.

Oct. 6, 2010	Deadline to add full courses (Y) and half-courses (H).
Nov. 3, 2010	Deadline to drop a Fall Session full course or half-course without academic penalty.
Jan. 4, 2011	Deadline to add Winter Session full courses (Y) and half-courses (H).
Feb. 25, 2011	Deadline to drop a full course (Y) or Winter Session half-course (H), or withdraw from a program without academic penalty.

Students enrolled in course-work only programs who drop all courses by the deadlines, must withdraw from the program. See Withdrawal from a Graduate Program, above.

Completion of Course Work and Grade Submission

Course work must be completed and grades submitted by the following dates:

Jan. 14, 2011	Fall Session (Y, H) courses
May 13, 2011*	Fall/Winter Session (Y) and Winter Session (Y, H) courses *For students receiving degrees at Spring Convocation, grades must be submitted by April 24.
Sep. 16, 2011	Summer Session courses and extended courses

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 detailing the reasons, together with a physician's letter in the case of illness;
2. the student would not be granted an unfair academic advantage over fellow students in the course;
3. the student would not be placing in jeopardy the normal and satisfactory completion of new course work; and
4. the student does have a reasonable chance of completing outstanding requirements within the time to be allotted.

Time-limits for course work extensions

If a graduate unit grants a petition for an extension, it must specify an extension period, which is not to 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:

May 13, 2011	Fall Session (Y, H) courses
Sep. 16, 2011	Fall/Winter Session (Y) and Winter Session (Y, H) courses
Jan. 13, 2012	Summer Session courses and extended courses

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 graduate 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 additional 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.

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 and Diploma 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 must meet the Full-time Studies requirements – see Registration Procedures section.

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 progress. These requirements and standards are described in the appropriate entry in the Degree and Diploma 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 committee 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

PhD Students must meet the requirements for time limits and candidacy. See Degree Requirements, PhD Program Requirements, Candidacy: Requirements and Time Limit regulations section below.

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 Constitution of the School of Graduate Studies, and therefore, for implementing the academic and procedural standards established in the School.

Although this Calendar outlines 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 documentation 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/Assets/current/current+pdf/superv.pdf). 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 must 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/Assets/current/current+pdf/superv.pdf:

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 must 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 will 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. Candidates will be charged a fee for the processing and indexing of the thesis.

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/finup.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 and the required form(s) must be submitted to SGS (see above). Confirmation in writing that any corrections or modifications deemed necessary after the defence must also be received by SGS (see Final Oral Examinations).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 (or diploma) 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.

When all requirements for a doctoral program have been fulfilled and a final copy of the thesis as well as required supporting documents have been submitted to SGS, the student will be recommended for graduation by 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 Policy

General

Graduate students may appeal 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, with 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 unit. This form must be completed and delivered to the chair/director of the graduate unit or the chair of GDAAC within the specified timeline of 8 weeks from the date of the decision under appeal. The chair of the GDAAC 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/director of the graduate unit regarding the merits of the appeal. The graduate unit chair/director will then render the unit-level appeal decision. Guidelines for graduate unit chairs/directors 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/director of the graduate unit by filing a Notice of Appeal to the SGS Graduate Academic Appeals Board (GAAB) within 8 weeks of the decision of the graduate unit chair/director.
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		
TIMELINE FOR STUDENT ACTION AT EACH STAGE *See Note A below*	**STEP** *See Note B below*	**TIMELINE FOR DECISION/ ACTION BY UNIVERSITY BODY AT EACH STAGE** *See Note C below*
	1. Informal a. Student to instructor b. Student to graduate coordinator	

8 weeks from date of decision being appealed	**2. Graduate Unit-level Appeal**
	    Notice of Appeal to GDAAC[1]
	    Note: Appeals related to failure of the final PhD oral examination or to termination of registration in a graduate program must be made directly to GAAB[2] – see Step 3b below.
		8 weeks from filing of Notice of Appeal to GDAAC[1]

a. **8 weeks** from decision of graduate unit chair/director b. **8 weeks** from written notification of failure of the final PhD oral examination or termination of registration in a graduate program	**3. SGS Appeal** a. Notice of Appeal to GAAB[2] 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.	**8 weeks** from filing of Notice of Appeal to GAAB[2]
90 days from decision of GAAB[2]	**4. Governing Council Appeal** Notice of Appeal to GCAAC[3]	N/A

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 graduate unit-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.

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.

[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.***

Purpose

The purpose of the Graduate Grading and Evaluation Practices Policy is to ensure:
1. that grading practices in the School of Graduate Studies are consistent with those throughout the University and reflect appropriate academic standards;
2. that the evaluation of student performance is made in a fair and objective manner against these academic standards;
3. that grade scales in the School of Graduate Studies are compatible with those in other divisions of the University.

Application of Policy

The Policy applies to all individuals and committees taking part in the evaluation of student performance in courses in the School of Graduate Studies.

Amendment to Policy

Amendments to the Policy shall be recommended by the School of Graduate Studies Council through the Committee on Academic Policy and Programs to the Academic Board.

Distribution of Policy

A copy of the Graduate Grading and Evaluation Practices Policy shall be published in the SGS Calendar. A copy of the Calendar or other document containing the policy shall be given to all students upon initial registration and to all instructors and others involved in the evaluation of student performance.

The Policy is in three parts: Part I deals with grades, Part II outlines grading procedures, and Part III is the administrative appendix from the University Grading Practices Policy for undergraduate divisions, available upon request from the Graduate Student Services Office.

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:

Excellent
Good
Adequate
Inadequate

Grade Scales

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

Letter Grade	Grade Meaning
A+	
A	Excellent
A-	
B+	
B	Good
B-	
FZ	Inadequate

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:

Letter Grade	Grade Meaning
A+	90-100%
A	85-89%
A-	80-84%
B+	77-79%
B	73-76%
B-	70-72%
FZ	0-69%

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, pending receipt from the instructor of a final course report. A final course report 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 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

meanings, 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 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 relative 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 then 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

The University believes that all contributors to the successful realization of new technoloiges and knowledge should share fairly and appropriately in the benefits. For details and further information, visit www.research.utoronto.ca/for-researchers-administrators/applying-for-funding/intellectual-property/

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

Students are also encouraged to review the Guidelines for Safety in Field Research produced by the Office of Environmental Health and Safety at www.utoronto.ca/safety/Policies/fieldres.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. All degree program students are subject to the Good Standing requirements in the General Regulations section; **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 types that are offered in multiple graduate units are outlined in this section. Admission and program requirements for degree types that are specific to one graduate program 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. An 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 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 Requirements
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 a 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.

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

4. Students in some graduate units or specializations will be required to take a comprehensive examination. Consult specific graduate unit for details.
5. A thesis embodying the results of original investigation conducted by the student under the direction of an OISE 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-wide Student Education Ethics Review Committee (SEERC) administered by University of Toronto Research Services (UTRS). Please consult the OISE 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 degree program are outlined in the Law entry Degree and Diploma Programs by Graduate Unit.

Doctor of Musical Arts (DMA)

Admission and program requirements for the degree program are outlined in the Music entry Degree and Diploma 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

Four-Year PhD Program

Students admitted to this program require a 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.

A student who is admitted on condition that the requirements for an acceptable master's degree at another university are 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.

Five-Year PhD Program (referred to as "Direct-entry")

Students admitted to this program, where offered, require a 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.

Transfers

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.

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 transfer subsequently to the PhD program within the same graduate unit unless approved by the SGS Admissions and Programs Committee.

Program Requirements

PhD students must register for every successive session, including summers, on a full-time basis following the first session of registration unless granted a leave of absence. The minimum period of registration is one

academic year, that is, three consecutive sessions. See also Flexible-time PhD Program below.

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:

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

b) 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.

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.

See also PhD Supervision section in the General Regulations. See also Submission of Theses section in the General Regulations.

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. See time limit for Flexible-time PhD Programs below. 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 four one-year extensions. See Extension of Time for Completion of Degree Requirements for PhD Students in General Regulations above.

PhD students who have not completed the degree requirements before the time limit for the degree or by the end of the extension period may not enrol further.

Flexible-time PhD Program

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 practising 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. See General Regulations, Extension of Time for Completion of Degree Requirements section above.

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. It should not be distributed beyond that group and the relevant administrative officers before the examination. The candidate is to be instructed not to communicate with the External Appraiser/Examiner until the examination is under way.

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 discus-

sion 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 fulfil 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/finup.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. Applicants must hold the degree of Bachelor of Applied Science 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 Requirements

Under the direction of a graduate unit, a student in this University must pursue a program of advanced study approved by the graduate unit. Normally the program will include not more than three full-year courses or equivalent and the preparation of a research thesis, the latter being the major requirement.

Admission and program requirements may vary; consult the individual graduate unit entry for details.

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 Degree and Diploma Programs by Graduate Unit.

Master of Arts (MA)

Admission Requirements

1. Applicants must hold an appropriate bachelor's degree with high academic standing from a recognized university.

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 usual length of program may be extended.

Program Requirements

1. Under the direction of a graduate unit, a student in this University must 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.
   Admission and program requirements may vary; consult the individual graduate unit entry for details.

Master of Biotechnology (MBiotech)

Admission and program requirements for the program are outlined in the Biotechnology entry in Joint Programs.

Master of Business Administration (MBA)

Admission and program requirements for the degree programs are outlined in the Management entry in Degree and Diploma Programs by Graduate Unit.
- Master of Business Administration in Management
- Executive Master of Business Administration in Management
- Global Executive Master of Business Administration in Management

Master of Education (MEd)
Admission Requirements

1. Applicants must hold an appropriate bachelor's degree, or its equivalent from a recognized university, completed with standing equivalent to a mid-B or better in the final year.
2. A year of professional education for teaching, or the equivalent in pedagogical content, is helpful.
3. 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 Requirements

The minimum program requirements for the MEd degree are as follows:

1. Under the direction of a 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 comprehen¬sive 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).
2. 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.
3. All requirements for the degree must be satisfactorily completed within six years of first enrolment.
   Admission and program requirements may vary; consult the individual graduate unit entry for details

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. Applicants must hold the degree of Bachelor of Applied Science 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 Requirements

1. Under the direction of a graduate unit, a student in this University must pursue a program of study approved by the graduate unit. The program will 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 program and experience. This required period will be as recommended by the graduate unit and approved by the School of Graduate Studies, but must not exceed two sessions.
3. The degree program must be completed within six calendar years of registration.
   Admission and program requirements may vary; consult the individual graduate unit entry for details

Master of Engineering in Design and Manufacturing (MEngDM)

Admission and program requirements for the program are outlined in the Advanced Design and Manufacturing entry in Joint Programs.

Master of Environmental Science (MEnvSc)

Admission and program requirements for the program are outlined in the Physical and Environmental Sciences entry in Degree and Diploma Programs by Graduate Unit.

Master of Finance (MF)

Admission and program requirements for the program are outlined in the Management entry in Degree and Diploma Programs by Graduate Unit.

Master of Financial Economics (MFE)

Admission and program requirements for the program are outlined in the Financial Economics entry in Joint Programs.

Master of Forest Conservation (MFC)

Admission and program requirements for the program are outlined in the Forestry entry in Degree and Diploma Programs by Graduate Unit.

Master of Global Affairs (MGA)

Admission and program requirements for the program are outlined in the Global Affairs entry in Degree and Diploma Programs by Graduate Unit.

Master of Health Informatics (MHI)

Admission and program requirements for the degree program are outlined in the Health Policy, Management and Evaluation entry in Degree and Diploma 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
- Speech-Language Pathology

Admission and program requirements may vary; consult the individual graduate unit entry for details.

Master of Industrial Relations and Human Resources (MIRHR)

Admission and program requirements for the program are outlined in the Industrial Relations and Human Resources entry in Degree and Diploma Programs by Graduate Unit.

Master of Information (MI)

Admission and program requirements for the program are outlined in the Information entry in Degree and Diploma Programs by Graduate Unit.

Master of Landscape Architecture (MLA)

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

Master of Laws (LLM)

Admission and program requirements for the program are outlined in the Law entry in Degree and Diploma Programs by Graduate Unit.

Master of Management and Professional Accounting (MMPA)

Admission and program requirements for degree program are outlined in the Professional Graduate Programs Centre (UTM) entry in Degree and Diploma Programs by Graduate Unit.

Master of Management of Innovation (MMI)

Admission and program requirements for the program are out¬lined in the Health, Policy, Management and Evaluation entry in Degree and Diploma Programs by Graduate Unit.

Master of Mathematical Finance (MMF)

Admission and program requirements for the degree program are outlined in the Mathematical Finance entry in Degree and Diploma Programs by Graduate Unit.

Master of Museum Studies (MMSt)

Admission and program requirements for the program are outlined in the Information entry in Degree and Diploma Programs by Graduate Unit.

Master of Music (MMus)

Admission and program requirements for the program are outlined in the Music entry in Degree and Diploma Programs by Graduate Unit.

Master of Public Health Science (MPH)

Admission and program requirements for the program are outlined in the Public Health Sciences entry in Degree and Diploma Programs by Graduate Unit.

Master of Public Policy (MPP)

Admission and program requirements for the program are out-lined in the Public Policy entry in Degree and Diploma Programs by Graduate Unit.

Master of Nursing (MN)

Admission and program requirements for the program are outlined in the Nursing entry in Degree and Diploma Programs by Graduate Unit.

Master of Science (MSc)

Admission Requirements

1. Applicants must hold an appropriate bachelor's degree with high academic standing from a recognized university.
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 Requirements

1. Under the direction of a graduate unit, a student in this University will 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.

Admission and program requirements may vary; consult the individual graduate unit entry for details.

Master of Science in Biomedical Communications (MScBMC)

Admission and program requirements for the program are outlined in the Medical Science entry in Degree and Diploma Programs by Graduate Unit.

Master of Science in Community Health (MScCH)

Admission and program requirements for the program are outlined in the Public Health Sciences entry in Degree and Diploma Programs by Graduate Unit.

Master of Science in Forestry (MScF)

Admission and program requirements for the program are outlined in the Forestry entry in Degree and Diploma Programs by Graduate Unit.

Master of Science in Occupational Therapy (MScOT)

Admission and program requirements for program are outlined in the Occupational Science and Occupational Therapy entry in Degree and Diploma Programs by Graduate Unit.

Master of Science in Physical Therapy (MScPT)

Admission and program requirements for the program are outlined in the Physical Therapy entry in Degree and Diploma Programs by Graduate Unit.

Master of Science in Planning (MScPl)

Admission and program requirements for the program are outlined in the Geography entry in Degree and Diploma Programs by Graduate Unit.

Master of Social Work (MSW)

Admission and program requirements for the program are outlined in the Social Work entry in Degree and Diploma Programs by Graduate Unit.

Master of Studies in Law (MSL)

Admission and program requirements for the program are outlined in the Law entry in Degree and Diploma Programs by Graduate Unit.

Master of Teaching (MT)

Admission and program requirements for the degree program are outlined in the Curriculum, Teaching and Learning entry in Degree and Diploma Programs by Graduate Unit.

Master of Urban Design (MUD)

Admission and program requirements for the program are outlined in the Architecture, Landscape and Design entry in Degree and Diploma Programs by Graduate Unit.

Master of Urban Design Studies (MUDS)

Admission and program requirements for the program are outlined in the Geography entry in Degree and Diploma Programs by Graduate Unit.

Master of Visual Studies (MVS)

Admission and program requirements for the program are outlined in the Art entry in Degree and Diploma 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). University of Toronto students normally pay tuition fees at a branch of a financial institution (bank) in Canada. Students wishing to make a fees payment from outside of Canada may choose one of the following three fee payment options: Travelex Bank to Bank Transfer, bank draft/money order, or transfer of funds. More information on these payment options can be found on the Student Accounts Web site. Holders of certain scholarships, awards, research assistantships, teaching assistantships, or loans may request to register without payment through their graduate unit. Students are considered to be registered as soon as they have paid academic and incidental fees or have an approved request to register without payment 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. This period establishes the minimum degree fee that must be paid before graduation.

In the Faculty of Information, where there is no residence or full-time attendance required and the master's degree is achieved by course work only, the length of program will be determined by the number of full-course equivalents (FCE) required to complete the degree requirements.

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. See also Fees for Final Year Doctoral Students and PhD Students on Extension below regarding fees for PhD students on extenison.

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.

Flexible-time PhD Degree Students

Students undertaking a flexible-time PhD program are required to pay full-time academic and incidental fees for the first four years of the program and may pay part-time academic and incidental fees thereafter up to the time limit for the degree. Extensions are permitted under existing policy: students granted an extension may register full-time or part-time and pay fees accordingly. See General Regulations, Extension of Time for Completion of Degree Requirements section above.

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. See also Fees for Final Year Doctoral Students and PhD Students on Extension below.

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.

Any fees paid as a non-degree student (whether at the University of Toronto or at another institution) will not be counted towards the balance of degree fee. The SGS approved transfer of graduate credit does not reduce the required balance of degree fee. See also Minimum Period of Registration entry in Structure of Academic Programs section, General Regulations, above.

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 28, 2011 are required to register for the Fall Session and pay the appropriate fees.

Fees for Final Year Doctoral Students

Doctoral student 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.

Academic fees for the final extension year will be prorated, based on 50% of the domestic fee for the 12-month academic year, for the number of months that elapse between September and (including) the month in which the 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.

Fees for PhD Students on Extension

PhD students (excluding flexible-time PhD program students) on extension, both domestic and international, will be registered as full-time students and charged an academic fee equal to 50% of the domestic fee and full-time incidental fees duirng each year of extension.

Reinstatement Fees

A reinstatement fee equivalent to the one session full-time fee is applied when a full-time master's or professional doctoral or full-time flexible-time PhD student has been reinstated after the time limit for a period of 12 months.

Part-time students and part-time flexible-time PhD 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.

See also Lapsed Status and Reinstatement entry in Continuity of Registration section in General Regulations above.

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/informationfor/students/money/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 Connaught Scholarship as well as other endowed awards. For more information on internal awards visit www.sgs.utoronto.ca/informationfor/students/money/awards/internal.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. International students are eligible for the Vanier Canada Graduate Scholarships only.

The Government of the Province of Ontario provides graduate scholarships tenable at Ontario universities. Ontario Graduate Scholarships (http://osap.gov.on.ca) 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 on awards for non-Canadians, please visit www.sgs.utoronto.ca/informationfor/students/money/awards.htm and look under the Awards Listing information. International students are encouraged to apply for all possible funding opportunities in their home country.

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) 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/money/awards/finances.htm#emergency_grant

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/money/awards/finances.htm#emergency_loan.

Accessibility Grant Program

The Accessibility Grant Program is designed to assist currently registered, full-time graduate students with accommodations necessary to meet unexpected needs arising from the particular demands of the graduate program. The grant is intended to assist with relatively short term needs that are required to complete the program, not for everyday assistance and needs. Students are expected to plan for long-term assistance. Students must apply for this grant through Accessibility Services. Information about this grant will be available on the SGS Web site as of September 2010.

Opportunities Database

An Opportunities Database has been developed by ULife and provides a listing of internal and external awards available to University of Toronto students. This list will be updated regularly as new awards become available and we encourage students to visit the Web site often: https://ulife.utoronto.ca/opportunities/list/type/award.

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 email to graduate.awards@utoronto.ca.

Further information on financial support

Visit

www.sgs.utoronto.ca/informationfor/students/money/
awards.htm

Contact

Graduate Awards Office
School of Graduate Studies
University of Toronto
63 St. George Street, Room 202
Toronto, Ontario M5S 2Z9
Canada
Telephone: (416) 978-2379
Fax: (416) 971-2864
E-mail: graduate.awards@utoronto.ca or
gradschool@utoronto.ca

Services for Students

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 more details.
www.sgs.utoronto.ca/calendar/2010-11.htm
http://life.utoronto.ca/
www.sgs.utoronto.ca/informationfor/students.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 (St. George, UTM, UTSC)
English Language and Writing Support (ELWS)
Graduate Professional Skills (GPS) Program
Research Ethics, Office of
Research Partnerships
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
gradNAV
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, UTM, UTSC)
Anti-Racism and Cultural Diversity Office
Centre for Women and Trans People
First Nations House
Sexual and Gender Diversity Office
Multi-Faith Centre, St. George
Sexual Harassment Office
Status of Women Office
Women's Centre (UTM, UTSC)

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 Resources, UTM
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 and Counselling 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.

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

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 Resource Centre at UTM
International Student Exchange Office (ISXO)
International Student Identity Card (ISIC)
University Health Insurance Plan (UHIP)
University of Toronto Summer Abroad

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), St. George

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 Athletics
UTSC Athletics & Recreation

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
WALKsafer (St. George, UTM)
UTSC Patrol

Graduate Faculty

There are three categories of graduate faculty. This section contains a single alphabetical listing of full members and members emeriti with the home department listed beside the name. 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
Abdulhai, 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
Agrawal, Aneil - Ecology & Evolutionary Biology
Aguirregabiria, Victor - Economics
Agur, Anne - Medical Science
Ahn, Juhn - Religion
Aide, William - Music
Ainslie, Donald - Philosophy
Aird, Paul - Forestry
Airhart, Phyllis - Religion
Aitchison, J. Stewart - Electrical & Computer Engineering
Aitken, Johan - Curriculum, Teaching & Learning
Aivazian, Varouj - Economics
Akbari, Suzanne - English
Akcoglu, Mustafa - Mathematics
Aksan, Virginia - Near & Middle Eastern Civilizations
Alaggia, Ramona - Social Work
Alain, Claude - Psychology
Alderson-Smith, Gavin - Anthropology
Aleman, Dionne - Mechanical & Industrial Engineering
Alexakis, Spyridon - Mathematics
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
Amburgey, Terry - Management

Amernic, Joel - Management
Amon, Cristina - Mechanical & Industrial Engineering
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, James - Dentistry
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
Artymowicz, 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
Astington, Janet - Human Development & Applied Psychology
Astington, John - Drama
Atkinson, Michael - Exercise Sciences
Attisano, Liliana - Biochemistry
Atwood, Harold - Physiology
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

Baber, Zaheer - Sociology
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
Baecker, Ronald - Computer Science
Bagby, Michael - Psychology
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
Balatinecz, John - Forestry
Balcioglu, Ahmet Baris - Mechanical & Industrial Engineering
Baldus, Bernd - Sociology
Balke, Stephen - Chemical Engineering & Applied Chemistry
Ballantyne, Peri - Pharmaceutical Sciences
Balmain, Keith - Electrical & Computer Engineering
Balot, Ryan - Political Science
Bamford, Sandra - Anthropology
Bancheri, Salvatore - Italian
Banning, Edward - Anthropology
Bapat, Bharati - Laboratory Medicine & Pathobiology
Barbaree, Howard - Medical Science
Barber, Brian - Immunology
Barber, Dwayne - Medical Biophysics
Bardakjian, Berj - Electrical & Computer Engineering
Barense, 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
Batey, Robert Alexander - Chemistry
Bathelt, Harald - Political Science
Baum, Joel - Management
Bawden, William - Civil Engineering
Bayoumi, Ahmed - Health Policy, Management & Evaluation
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
Beattie, Mary - Curriculum, Teaching & Learning
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
Begun, David - Anthropology
Beiner, Ronald - Political Science
Beitchman, Joseph - Public Health Sciences
Bejarano, Ana Maria - Political Science
Bellamy, Donald - Social Work
Belsham, Denise - Physiology
Ben Amara, Foued - Mechanical & Industrial Engineering
Ben Mrad, Ridha - Mechanical & Industrial Engineering
Benatar, Solomon - Public Health Sciences
Benchimol, Samuel - Medical Biophysics
Bencze, Lawrence - Curriculum, Teaching & Learning
Ben-David, Yacov - Medical Biophysics
Bendayan, Reina - Pharmaceutical Sciences
Bendeck, Michelle - Laboratory Medicine & Pathobiology
Bender, Daniel Eric - History
Bender, Timothy - Chemical Engineering & Applied Chemistry
Benhabib, Bensiyon - Mechanical & Industrial Engineering
Benjamin, Dwayne - Economics
Bennett, Barrie - Curriculum, Teaching & Learning
Bennick, Anders - Dentistry
Benson, Peter - Law
Bentley (Jr), Gerald - English
Bentz, Evan - Civil Engineering
Berdahl, Jennifer - Management

Berg, Katherine - Physical Therapy
Bergen, Doris - History
Berger, Carl - History
Berger, Stuart - Immunology
Bergeron, Catherine - Laboratory Medicine & Pathobiology
Bergquist, Bridget - Geology
Berinstein, 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 - Chemistry
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
Birnholtz, Jeremy - Computer Science
Bisztray, George - Slavic
Bjerknes, 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
Bolton, Charles - Astronomy & Astrophysics
Bolus-Reichert, Christine - English
Bolz, Steffen-Sebastian - Physiology
Bombardier, Claire - Health Policy, Management & Evaluation
Bond, J Richard - Theoretical Astrophysics
Bondy, Susan - Public Health Sciences
Bonert, Richard - Electrical & Computer Engineering
Bonner, Anthony - Computer Science
Boocock, David - Chemical Engineering & Applied Chemistry
Boon, Heather - Pharmaceutical Sciences
Boone, Charlie - Molecular Genetics
Boonstra, Rudy - Ecology & Evolutionary Biology
Booth, David - Curriculum, Teaching & Learning
Booth, James - Immunology
Booth, Laurence - Management
Borins, Sandford - Management
Borodin, Allan - Computer Science
Bors, Douglas - Psychology
Boschen, Kathryn Ann - Rehabilitation Science
Bothwell, Robert - History
Boulianne, Gabrielle - Molecular Genetics
Boulton, Peter - Electrical & Computer Engineering
Bourne, Larry - Geography
Boursier, Nicole - French
Boutilier, Craig - Computer Science
Bowen, Barry - Pharmaceutical Sciences
Bowen, William - Music
Boyd, Dwight - Theory & Policy Studies in Education
Boyd, Monica - Sociology
Boyle, Joseph - Philosophy
Bradley, T. Douglas - Medical Science
Branch, Donald - Medical Science
Brandt, Loren - Economics
Branfireun, Brian - Geography
Braun, Aurel - Political Science
Brean, Donald - Management
Bremner, Roderick Angus - Laboratory Medicine & Pathobiology
Brenan, James - Geology
Brenner, David - Statistics
Bressmann, Tim - Speech-Language Pathology
Breton, Margot - Social Work
Breton, Raymond - Sociology
Brett, M. Clare - Curriculum, Teaching & Learning
Brill, Julie - Molecular Genetics
Briskin, David - Music
Bristow, Robert Glen - Medical Biophysics
Britton, John - Geography
Brock, Kristy - Medical Biophysics
Bronskill, Michael - Medical Biophysics
Brook, Adrian - Chemistry
Brooks, Daniel - Ecology & Evolutionary Biology
Brooks, Dina - Physical Therapy
Brooks, Leonard - Management

Broucke, Mireille - Electrical & Computer Engineering
Broussard, Dianne - Medical Science
Brousseau, Anne-Marie - French
Broverman, Samuel - Statistics
Brown, Elspeth - History
Brown, Grant - Biochemistry
Brown, Ian - Cell & Systems Biology
Brown, James - Philosophy
Brown, Martha - Molecular Genetics
Brown, Robert Craig - History
Brown, Russell - English
Brown, Stephen - Electrical & Computer Engineering
Brown, Theodore - Physiology
Brownfield, David - Sociology
Brownlee, John - History
Brubaker, Patricia - Physiology
Bruce, Ashley - Cell & Systems Biology
Bruce, Robert - Nutritional Sciences
Bruckmann, Patricia - English
Brudner, Alan S - Law
Brudno, Michael (Mikhail) - Computer Science
Brumell, John - Molecular Genetics
Brumer, Paul - Chemistry
Brunnee, Jutta - Law
Brunner, Lawrence - Statistics
Brunton, James - Medical Science
Bruun, Christer - Classics
Bryan, Rorke - Forestry
Bryant, Joseph - Religion
Brym, Robert - Sociology
Bucerius, Sandra - Criminology
Buchsbaum, Bradley - Psychology
Buchwald, Manuel - Molecular Genetics
Buchweitz, Ragnar-Olaf - Mathematics
Buck, Leslie - Cell & Systems Biology
Budde, Antje - Drama
Buliung, Ronald - Geography
Bull, Shelley - Public Health Sciences
Bunce, Michael - Geography
Burch, Kenneth - Physics
Burchard, Almut - Mathematics
Burgess, Jonathan - Classics
Burgess, Ralph - Dentistry
Burke, James - Spanish
Burnham, Willets - Pharmacology & Toxicology
Burns, Peter - Medical Biophysics
Burstow, Bonnie - Adult Education & Counselling Psychology
Burton, Frances - Anthropology
Bussmann, Markus - Mechanical & Industrial Engineering
Busto, Usanda - Pharmaceutical Sciences
Buys, Yvonne Margareth - Medical Science
Byer, Philip - Civil Engineering

C

Cadotte, Marc W. - Ecology & Evolutionary Biology
Caidi, Nadia - Information Studies
Cain, M. Celia - Music
Caldarone, Christopher - Medical Science
Callahan, John - Biochemistry
Callahan, William - History

Callen, Jeffrey - Management
Calzavara, Liviana - Public Health Sciences
Cameron, David - Political Science
Cameron, Elspeth - English
Cameron, Linda - Curriculum, Teaching & Learning
Campbell, Douglas - Sociology
Campbell, Elizabeth - Curriculum, Teaching & Learning
Campbell, James - Molecular Genetics
Campbell, Malcolm - Cell & Systems Biology
Campolieti, Michele - Industrial Relations & Human
  Resources
Canfield, John - Philosophy
Caniggia, Isabella - Physiology
Capozzi, Rocco - Italian
Carens, Joseph - Political Science
Carlberg, 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
Carver, Jeremy - Molecular Genetics
Casas, Francois - Economics
Casas, Michael - Dentistry
Caskey, Jill - Art
Casper, Robert - Medical Science
Caspersen, John - Forestry
Castle, David - History & Philosophy of Science &
  Technology
Catton, Pamela - Medical Science
Cattral, Mark - Medical Science
Cattran, Daniel - Medical Science
Cazdyn, Eric - East Asian Studies
Chaffey, Charles - Chemical Engineering & Applied
  Chemistry
Chakrabartty, Avijit - Medical Biophysics
Chakravartty, Anjan - History & Philosophy of Science &
  Technology
Chalikian, Tigran - Pharmaceutical Sciences
Chalin Clark, Catherine - Public Health Sciences
Challis, John - Physiology
Chamberlin, J Edward - English
Chambers, Anthony - Theory & Policy Studies in
  Education
Chambers, Craig - Psychology
Chambers, Douglas - English
Chambers, J - Linguistics
Chambers, Simone - Political Science
Chambon, Adrienne - Social Work
Chan, Helen - Medical Science
Chan, Hue Sun - Biochemistry
Chan, Ka Nin - Music
Chan, Timothy - Mechanical & Industrial Engineering

Chan, Voon - Molecular Genetics
Chan, Warren - Biomedical Engineering
Chan Carusone, Anthony - Electrical & Computer
  Engineering
Chandra, Sanjeev - Mechanical & Industrial Engineering
Chang, Belinda - Ecology & Evolutionary Biology
Chapman, Bruce - Law
Chapman, Kenneth - Exercise Sciences
Charles, Michael - Chemical Engineering & Applied
  Chemistry
Charlton, Milton - Physiology
Chasteen, Alison - Psychology
Chau, Tom - Biomedical Engineering
Chazan, Michael - Anthropology
Chechik, Marsha - Computer Science
Cheetham, Mark - Art
Chen, Charles - Adult Education & Counselling
  Psychology
Chen, Jing - Geography
Chen, Li - History
Chen, Robert - Medical Science
Chen, Xi (Becky) - Human Development & Applied
  Psychology
Cheng, Hazel Pl - Medical Biophysics
Cheng, Yu-Ling - Chemical Engineering & Applied
  Chemistry
Cherry, Joan - Information Studies
Cheung, Peter - Medical Biophysics
Cheyne, Douglas - Medical Science
Chiarelli, Anna Maria - Public Health Sciences
Chignell, Mark - Mechanical & Industrial Engineering
Childs, Ruth - Human Development & Applied
  Psychology
Chin, Carol - History
Chin, Jik - Chemistry
Chipman, Mary - Public Health Sciences
Choi, Man-Duen - Mathematics
Choo, Chun Wei - Information Studies
Chow, Chung-Wai - Medical Science
Chow, Paul - Electrical & Computer Engineering
Christara, Christina - Computer Science
Christendat, Dinesh - Cell & Systems Biology
Christopoulos, Constantin - Civil Engineering
Chun, Kin-Yip - Physics
Churchill, Stacy (Jr.) - Curriculum, Teaching & Learning
Ciruna, Brian - Molecular Genetics
Clandfield, David - French
Clark, Caryl - Music
Clark, Philip - Philosophy
Clarke, David - Medical Science
Clarke, E Aileen - Public Health Sciences
Clarke, George Elliott - English
Clarke, Joe - Medical Science
Clarke, Sean - Nursing Science
Clarkson, Stephen - Political Science
Cleghorn, William - Mechanical & Industrial Engineering
Clement, Andrew - Information Studies
Clement, Christine - Astronomy & Astrophysics
Clement, Maurice - Astronomy & Astrophysics
Clokie, Cameron - Dentistry
Cloutier-Wojciechowska, Cecile - French

Cluett, William - Chemical Engineering & Applied Chemistry
Cobb, Michael - English
Cobbold, Richard - Biomedical Engineering
Coburn, David - Public Health Sciences
Cochelin, Isabelle - History
Cochrane, Alan - Molecular Genetics
Cockerill, Rhonda W - Health Policy, Management & Evaluation
Code, Richard - Physics
Cody, Francis - Anthropology
Cohen, Adam - Art
Cohen, Joanna - Public Health Sciences
Cohen, Jon - Economics
Cohen, Marsha - Health Policy, Management & Evaluation
Cohen, Paul - History
Cohen, Rina - Curriculum, Teaching & Learning
Cohen, Zane - Medical Science
Colantoni, Laura - Spanish
Colantonio, Angela - Occupational Science & Occupational Therapy
Cole, Ardra - Adult Education & Counselling Psychology
Cole, David - Laboratory Medicine & Pathobiology
Cole, Donald - Public Health Sciences
Cole, Edward - Medical Science
Coleman, John - Cell & Systems Biology
Coles, John - Medical Science
Colliander, James - Mathematics
Collins, Michael - Civil Engineering
Collins, Nicholas - Ecology & Evolutionary Biology
Collins, Richard - Molecular Genetics
Coloma, Roland Sintos - Sociology & Equity Studies in Education
Columpar, Corinn - English
Comay, Rebecca - Philosophy
Connelly, Michael - Curriculum, Teaching & Learning
Connelly, Philip - Laboratory Medicine & Pathobiology
Consens, Mariano - Mechanical & Industrial Engineering
Conway, Tenley - Geography
Cook, David - Political Science
Cook, Eleanor - English
Cook, Ramsay - History
Cook, Rebecca - Law
Cook, Stephen - Computer Science
Cooper, Karyn - Curriculum, Teaching & Learning
Cooper, Paul - Forestry
Copeland, Nancy - Drama
Cordes, Sabine - Molecular Genetics
Corey, Mary - Public Health Sciences
Corey, Paul - Public Health Sciences
Cormack, Donald - Chemical Engineering & Applied Chemistry
Corman, Brian - English
Corneil, Derek - Computer Science
Corter, Carl - Human Development & Applied Psychology
Corts, Kenneth - Management
Cossman, Brenda - Law
Cote, Stephane - Management
Cott, Cheryl - Physical Therapy
Cotterchio, Michelle - Public Health Sciences

Coupland, Gary - Anthropology
Courtman, David - Laboratory Medicine & Pathobiology
Cowen, Deborah - Geography
Cowen, Leah - Molecular Genetics
Cowling, Sharon - Geography
Cowper, Elizabeth - Linguistics
Cox, Brian - Materials Science & Engineering
Coyle, Thomas - Materials Science & Engineering
Coyte, Peter C - Health Policy, Management & Evaluation
Cozea, Angela - French
Craig, Barbara - Information Studies
Craik, Fergus - Psychology
Craiu, Virgil Radu - Statistics
Crawford, Adrian - Civil Engineering
Crawford, Gary - Anthropology
Cree, George Scott - Psychology
Croitoru, Ken - Medical Science
Cruden, Alexander - Geology
Cuddy-Keane, Melba - English
Cuervo, Maria Cristina - Spanish
Culotti, Joseph - Molecular Genetics
Culyer, Tony - Health Policy, Management & Evaluation
Cumming, Alister - Curriculum, Teaching & Learning
Cummins, James - Curriculum, Teaching & Learning
Cunningham, Alastair - Medical Biophysics
Cunningham, Frank - Philosophy
Cunningham, Hilary - Anthropology
Cunningham, John - Psychology
Cupchik, Gerald Chaim - Psychology
Currie, Douglas - Ecology & Evolutionary Biology
Currie, Iain - Mechanical & Industrial Engineering
Cusimano, Michael - Medical Science
Cutter, Asher - Ecology & Evolutionary Biology
Cutz, Ernest - Laboratory Medicine & Pathobiology
Cvitkovich, Dennis - Dentistry
Cybulsky, Myron - Laboratory Medicine & Pathobiology
Cyr, Helene - Ecology & Evolutionary Biology
Czarnota, Gregory - Medical Biophysics

D

Daar, Abdallah - Public Health Sciences
Dacome, Lucia - History & Philosophy of Science & Technology
Dainard, Alan - French
Damaren, Christopher - Aerospace Science & Engineering
Damiano, Ettore Vincenzo - Economics
Danahy, John - Architecture, Landscape, & Design
Daneman, Denis - Medical Science
Daneman, Meredyth - Psychology
Danesi, Marcel - Anthropology
Daniere, Amrita - Geography
Danska, Jayne - Immunology
Darling, DChristopher - Ecology & Evolutionary Biology
Darroch-Lozowski, Vivian - Curriculum, Teaching & Learning
Daswani, Girish - Anthropology
Daviau, Michele - Near & Middle Eastern Civilizations
Davidson, Alan Richard - Molecular Genetics
Davidson, Robert - Spanish
Davie, Lynn - Curriculum, Teaching & Learning

Davies, Alan - Religion
Davies, John - Dentistry
Davis, Aileen - Physical Therapy
Davis, Anthony - Geography
Davis, David - Health Policy, Management & Evaluation
Davis, Donald - Geology
Davis, H Chandler - Mathematics
Davis, John - Theory & Policy Studies in Education
Davis, Karen - Medical Science
Davis, Natalie - History
Davison, Edward - Electrical & Computer Engineering
Dawood, Yasmin - Law
Dawson, Deirdre - Occupational Science & Occupational Therapy
Dawson, Francis - Electrical & Computer Engineering
Dawson, Laura - Medical Science
Day, Richard - Political Science
D'Cruz, Joseph - Management
de Groot, Hans - English
De Kerckhove, Derrick - French
De Lara, Eyal - Computer Science
de Leeuw, Jacob - Aerospace Science & Engineering
De Nil, Luc - Speech-Language Pathology
de Quehen, A Hugh - English
De Rosa, Eve - Psychology
De Sousa, Ronald - Philosophy
de Veber, Gabriel - Medical Science
Deber, Charles - Biochemistry
Deber, Raisa - Health Policy, Management & Evaluation
Dehli, Kari - Sociology & Equity Studies in Education
Dei, George JS - Sociology & Equity Studies in Education
Deibert, Ronald - Political Science
Del Junco, Andres - Mathematics
DeLaurier, James - Aerospace Science & Engineering
D'Eleuterio, Gabriele - Aerospace Science & Engineering
DeLombard, Jeannine - English
Demke Brown, Angela - Computer Science
Dengler, Nancy - Ecology & Evolutionary Biology
Dennis, Cindy-Lee - Nursing Science
Dennis, James - Molecular Genetics
Dennis, Maureen - Medical Science
Denny, Michael - Economics
Denomme, Gregory - Laboratory Medicine & Pathobiology
Dent, Julian - History
Deporter, Douglas - Dentistry
Derry, W. Brent - Molecular Genetics
Derzko, Nicholas - Mathematics
Desai, Rashmikant - Physics
Desloges, Joseph - Geography
Desrochers, Pierre - Geography
Desser, Sherwin - Cell & Systems Biology
Desveaux, Darrell - Cell & Systems Biology
Detsky, Allan - Health Policy, Management & Evaluation
Devins, Gerald - Medical Science
Dewar, Michael - Classics
Dewees, Donald - Economics
Dhand, Arti - Religion
Dhirani, Al-Amin - Chemistry
Diamandis, Eleftherios - Laboratory Medicine & Pathobiology

Diamond, Colin - Curriculum, Teaching & Learning
Diamond, Miriam - Geography
DiCenso, James - Religion
Dick, John - Molecular Genetics
Dickens, Bernard - Law
Dickie, Imogen - Philosophy
Dickinson, Sven Josef - Computer Science
Dickinson, Timothy - Ecology & Evolutionary Biology
Dierick, Augustinus - German
Dietsche, Peter - Theory & Policy Studies in Education
DiFrancesco, Richard - Geography
Dilevko, Juris - Information Studies
Dimnik, Martin - Medieval Studies
Dion, Karen - Psychology
Diosady, Levente - Chemical Engineering & Applied Chemistry
Dirks, Peter - Laboratory Medicine & Pathobiology
Dittakavi, Sarma - Laboratory Medicine & Pathobiology
Dittrich, Maria B. - Geology
Doidge, Craig Andrew - Management
Dolan, Alf - Biomedical Engineering
Dolan, Neal - English
Dolezel, Lubomir - Slavic
Dolezelova, Milena - East Asian Studies
Dolloff, Lori Anne - Music
Domville, Eric William - English
Donaldson, D. James - Chemistry
Donaldson, Terence - Religion
Done, Susan - Laboratory Medicine & Pathobiology
Dong, Vy - Chemistry
Donmez, Birsen - Mechanical & Industrial Engineering
Donnelly, Michael - Political Science
Donnelly, Peter - Exercise Sciences
Donner, Gail - Nursing Science
Doob, Anthony - Criminology
Dooley, Ann - Medieval Studies
Doran, Diane - Nursing Science
Dorian, Paul - Pharmacology & Toxicology
Dosch, Hans - Immunology
Dostrovsky, Jonathan - Physiology
Dowler, E Wayne - History
Downes, Paul - English
Downey, Gregory - Medical Science
Drake, James - Medical Science
Drake, Thomas - Physics
Dresher, B Elan - Linguistics
Drewitt, Robert - Anthropology
Drucker, Daniel - Medical Science
Drummond, James - Physics
Duarte, Margarida - Economics
Dubber, Markus - Law
Ducharme, Joseph - Human Development & Applied Psychology
Duff, Wendy - Information Studies
Duffin, James - Physiology
Duffy, Dennis - English
Duggan, Anthony - Law
Dumont, Daniel - Medical Biophysics
Dunbar, Kevin - Psychology
Dunlop, David - Physics
Dunn, James - Geography

Duranton, Gilles - Economics
Durocher, Daniel - Molecular Genetics
Dutka, JoAnna - English
DuTour, Olivier - Anthropology
Dyck, Alexander - Management
Dyck, Harvey - History
Dyer, Charles - Astronomy & Astrophysics
Dyzenhaus, David - Law

E

Eakin, Joan - Public Health Sciences
Earl, Lorna - Theory & Policy Studies in Education
Easterbrook, Stephen Michael - Computer Science
Easty, Anthony - Biomedical Engineering
Eckenwalder, James - Ecology & Evolutionary Biology
Eddie, Scott - Economics
Edwards, Aled - Medical Biophysics
Edwards, Darryl - Music
Edwards, Elizabeth - Chemical Engineering & Applied
  Chemistry
Edwards, Richard - Physics
Egan, Sean - Molecular Genetics
Eichler, Margrit - Sociology & Equity Studies in Education
Einarson, Thomas - Pharmaceutical Sciences
Einstein, Gillian - Psychology
Eisenbichler, Konrad - Italian
Eizenman, Moshe - Biomedical Engineering
Ekmekci, Alis - Aerospace Science & Engineering
Eksteins, Modris - History
El-Diraby, Tamer - Civil Engineering
Eleen, Luba - Art
Eleftheriades, George - Electrical & Computer
  Engineering
Elitzur, Ramy - Management
Elkabas, Charles - French
El-Khoury, Rodolphe - Architecture, Landscape, & Design
Ellen, Faith - Computer Science
Ellen, Richard - Dentistry
Ellers, Erich - Mathematics
Elliott, George - Mathematics
Elliott, Robin - Music
Ellis, James - Molecular Genetics
Ellis, Keith Aa - Spanish
El-Mowafy, Omar - Dentistry
Elsholtz, Harry - Laboratory Medicine & Pathobiology
El-Sohemy, Ahmed - Nutritional Sciences
Emami, M. Reza - Aerospace Science & Engineering
Emili, Andrew - Molecular Genetics
Emmrich, Christoph - Religion
Emon, Anver - Law
Endrenyi, Laszlo - Pharmacology & Toxicology
Engstrom, Mark - Ecology & Evolutionary Biology
Enright, Wayne - Computer Science
Enright Jerger, Natalie - Electrical & Computer
  Engineering
Ensminger, Ingo - Cell & Systems Biology
Erb, Suzanne - Psychology
Erb, Uwe - Materials Science & Engineering
Erickson, Bonnie - Sociology
Erickson, Patricia - Sociology
Eriks-Brophy, Alice - Speech-Language Pathology

Esch, Deborah - English
Escobar, Michael - Public Health Sciences
Esonwanne, Uzoma - English
Espie, George - Cell & Systems Biology
Esplen, Mary Jane - Nursing Science
Estes, James - History
Etchells, Edward - Health Policy, Management &
  Evaluation
Ethier, C Ross - Mechanical & Industrial Engineering
Eubanks, James - Medical Science
Evans, David - Ecology & Evolutionary Biology
Evans, Gregory - Chemical Engineering & Applied
  Chemistry
Evans, Michael - Statistics
Everett, Nicholas - History
Evison, Martin Paul - Anthropology
Ewald, Bjorn - Art
Ewan, Elizabeth - Medieval Studies
Eyles, Nicholas - Geology
Eyoh, Dickson - Political Science
Eysenbach, Gunther - Health Policy, Management &
  Evaluation
Eyssen, Gail - Public Health Sciences
Ezzat, Shereen - Medical Science

F

Fadel, Mohammad - Law
Faig, Miquel - Economics
Fairgrieve, Thomas - Computer Science
Falconer, Alexander - French
Falkenheim, Victor - Political Science
Fantham, Elaine - Classics
Fantus, George - Medical Science
Farge, James - Medieval Studies
Farish, Matthew - Geography
Farmer, Diane - Sociology & Equity Studies in Education
Farnood, Ramin - Chemical Engineering & Applied
  Chemistry
Farrell, Joseph - Curriculum, Teaching & Learning
Farzan, Azadeh - Computer Science
Faulkner, Guy - Exercise Sciences
Fehige, Yiftach - History & Philosophy of Science &
  Technology
Fehlings, Michael - Medical Science
Feinstein, Anthony - Medical Science
Fekl, Ulrich - Chemistry
Feldman, Brian - Health Policy, Management &
  Evaluation
Feng, Zhong Ping - Physiology
Fenner, Angelica - German
Fenton, Robert - Mechanical & Industrial Engineering
Fenwick, Gillian - English
Ferber, Susanne - Psychology
Ferguson, Bruce - Public Health Sciences
Fernie, Geoffrey - Biomedical Engineering
Fernie, John - Astronomy & Astrophysics
Ferrari, Michel - Human Development & Applied
  Psychology
Ferrence, Roberta - Public Health Sciences
Ferris, Grant - Geology
Ferris, Lorraine - Public Health Sciences

Feuerverger, Andrey - Statistics
Feuerverger, Grace - Curriculum, Teaching & Learning
Fillery, Edward - Dentistry
Filmus, Jorge - Medical Biophysics
Finer, Yoav - Dentistry
Finkelstein, Sarah - Geography
Finlayson, Michael - History
Fish, Eleanor - Immunology
Fish, Joel - Medical Science
Fisher, Joseph - Medical Science
Fitch, Brian - French
Fitting, Peter - French
Fitzpatrick, Mark - Ecology & Evolutionary Biology
Fiume, Eugene - Computer Science
Flahiff, Frederick - English
Fleck, James - Management
Fleet, David James - Computer Science
Fleming, Alison - Psychology
Fleming, E Patricia - Information Studies
Fleming, John - French
Fleshner, Neil - Medical Science
Fletcher, Joseph - Political Science
Fletcher, Paul - Psychology
Flint, Alastair - Medical Science
Flood, Colleen - Law
Floras, John - Medical Science
Florida, Richard - Management
Floyd, John - Economics
Foley, Patrick - Mechanical & Industrial Engineering
Fong, Eric - Sociology
Forbes, Donald - Political Science
Ford, Maureen - Theory & Policy Studies in Education
Forman-Kay, Julie - Biochemistry
Forrest, Christopher - Medical Science
Fortin, Marie-Josee - Ecology & Evolutionary Biology
Fortin, Paul - Health Policy, Management & Evaluation
Foster, Stuart - Medical Biophysics
Foulkes, Frank - Chemical Engineering & Applied
  Chemistry
Fournier, Marc - Psychology
Fox, Bonnie - Sociology
Fox, Harry - Religion
Fox, Mark - Mechanical & Industrial Engineering
Franceschetti, Antonio - Italian
Francis, Bruce - Electrical & Computer Engineering
Frank, Arthur - Public Health Sciences
Frank, John - Public Health Sciences
Frank, Roberta - Medieval Studies
Frankland, Paul - Physiology
Franklin, Ursula - Materials Science & Engineering
Franks, Paul - Philosophy
Frappier, Lori - Molecular Genetics
Fraser, Andrew - Molecular Genetics
Fraser, Craig - History & Philosophy of Science &
  Technology
Fraser, Donald AS - Statistics
Fraser, Paul - Medical Biophysics
Fraser, Simon John - Chemistry
Frazer, Garth - Management
Frecker, Richard - Biomedical Engineering
Frederickson, Megan - Ecology & Evolutionary Biology

Freedman, Jonathan - Psychology
Freedman, Morris - Medical Science
Fremes, Stephen - Medical Science
Frenette, Normand - Curriculum, Teaching & Learning
Frey, Brendan - Electrical & Computer Engineering
Friedland, Judith - Occupational Science & Occupational
  Therapy
Friedland, Martin - Law
Friedlander, John - Mathematics
Friedman, Shimon - Dentistry
Friedmann, Harriet - Sociology
Friefeld, Sharon - Occupational Science & Occupational
  Therapy
Friesen, T Max - Anthropology
Fuller-Thomson, Esme - Social Work
Fulthorpe, Roberta - Ecology & Evolutionary Biology
Funnell, Barbara - Molecular Genetics
Fusco, Caroline - Exercise Sciences
Fuss, Melvyn - Economics

G
Gad, Gunter - Geography
Gagne, Antoinette - Curriculum, Teaching & Learning
Gaisano, Herbert - Medical Science
Galbraith, David - English
Gallagher, Kathleen Marie - Curriculum, Teaching &
  Learning
Gallie, Brenda - Molecular Genetics
Gallinger, Steven - Medical Science
Gallop, Ruth - Nursing Science
Galloway, John - Geography
Gamlin, Peter - Adult Education & Counselling
  Psychology
Ganczarczyk, Jerzy - Civil Engineering
Ganjali, Yashar - Computer Science
Garfinkel, Paul - Medical Science
Gariepy, Jean - Medical Biophysics
Garrett, Frances - Religion
Garrison, Robert - Astronomy & Astrophysics
Garshowitz, Libby - Near & Middle Eastern Civilizations
Gartner, Rosemary - Criminology
Gaskell, Jane - Theory & Policy Studies in Education
Gastaldo, Denise - Nursing Science
Gauvreau, Douglas Paul - Civil Engineering
Gayon, Jean - History & Philosophy of Science &
  Technology
Gazzarrini, Sonia - Cell & Systems Biology
Genno, Charles - German
Genov, Roman - Electrical & Computer Engineering
George, Susan - Pharmacology & Toxicology
George, Tony - Psychology
George, Usha - Social Work
Georges, Michael - Chemistry
Georgis, Dina - Women & Gender Studies
Gerin-Lajoie, Diane - Curriculum, Teaching & Learning
Gerlai, Robert - Psychology
Gerson, Lloyd - Philosophy
Gertler, Meric - Geography
Gervers, Michael - History
Geva, Esther - Human Development & Applied
  Psychology

Ghent, Rebecca - Geology
Giacca, Adria - Physiology
Giaever, Guri - Pharmaceutical Sciences
Gibbs, Robert - Philosophy
Gibo, David - Ecology & Evolutionary Biology
Gignac, Monique - Public Health Sciences
Gilbert, Emily - Geography
Gilbert, Richard - Medical Science
Gillespie, Alexandra - English
Gillis, Joseph - Adult Education & Counselling
  Psychology
Gillis, Ronald - Sociology
Gillison, Gillian - Anthropology
Gillon, Brendan - History & Philosophy of Science &
  Technology
Gingras, Anne-Claude - Molecular Genetics
Gingras, Yves - History & Philosophy of Science &
  Technology
Ginsberg, Howard - Biomedical Engineering
Girardin, Stephen - Laboratory Medicine & Pathobiology
Girolametto, Luigi - Speech-Language Pathology
Gladman, Dafna - Medical Science
Glazier, Richard - Health Policy, Management &
  Evaluation
Glickman, Robert - Spanish
Globerman, Judith - Social Work
Glogauer, Michael - Dentistry
Glover, John - Biochemistry
Godt, Dorothea - Cell & Systems Biology
Goel, Ashvin - Electrical & Computer Engineering
Goel, Vivek - Public Health Sciences
Goering, Joseph - History
Goering, Paula - Medical Science
Goetschel, Willi - German
Goffart, Walter - History
Goh, M Cynthia - Chemistry
Gold, Marvin - Molecular Genetics
Golden, Brian - Management
Goldenberg, Andrei - Mechanical & Industrial
  Engineering
Goldenberg, Gerald Joseph - Pharmacology & Toxicology
Goldfarb, Avi - Management
Goldman, Marlene Beth - English
Goldreich, David - Management
Goldstein, Michael - Mathematics
Goldstein, Roger - Medical Science
Goldstein, Tara - Curriculum, Teaching & Learning
Goldstick, Daniel - Philosophy
Golombek, Lisa - Near & Middle Eastern Civilizations
Gombay, Andre - Philosophy
Gommerman, Jennifer - Immunology
Gong, Siew-Ging - Dentistry
Gooch, Paul William - Philosophy
Goodman, Jack - Exercise Sciences
Goodstadt, Michael Stephen - Public Health Sciences
Goodwin, Pamela - Health Policy, Management &
  Evaluation
Goonewardena, Kanishka - Geography
Gorczynski, Reginald - Immunology
Gordon, Myron - Management
Goring, Daphne - Cell & Systems Biology

Gorton, Michael - Geology
Gotlieb, Avrum - Laboratory Medicine & Pathobiology
Gotlieb, Calvin Carl - Computer Science
Gottlieb, James - Aerospace Science & Engineering
Gough, William - Geography
Gould, Elizabeth - Music
Gourieroux, Christian - Economics
Grabinsky, Murray - Civil Engineering
Gradinaru, Claudiu - Physics
Grady, Cheryl - Psychology
Graham, G Scott - Computer Science
Graham, Ian - Mathematics
Graham, Simon - Medical Biophysics
Gramolini, Anthony - Physiology
Grant, Denis - Pharmaceutical Sciences
Grant, John - Classics
Grant, Peter - Aerospace Science & Engineering
Granton, John - Medical Science
Grasselli, Giovanni - Civil Engineering
Gray-Owen, Scott - Molecular Genetics
Graziani, Rene' Ic - English
Green, Kenneth - Religion
Greenblatt, Jack - Molecular Genetics
Greene, Richard - English
Greenwood, Brian - Geography
Greenwood, Carol - Nutritional Sciences
Greenwood, Celia - Public Health Sciences
Greer, Allan - History
Gregor, Richard - Political Science
Greiner, Peter - Mathematics
Grendler, Paul - History
Griffin, Nicholas - History & Philosophy of Science &
  Technology
Griffin, P Allan - Physics
Griffiths, Franklyn Jc - Political Science
Grinstein, Sergio - Biochemistry
Grise, Catherine - French
Grootendorst, Paul - Pharmaceutical Sciences
Gross, Gil - Medical Science
Gross, Mart - Ecology & Evolutionary Biology
Groth, Clinton - Aerospace Science & Engineering
Grunfeld, Eva - Public Health Sciences
Gruninger, Michael - Mechanical & Industrial Engineering
Grupp, Larry - Pharmacology & Toxicology
Grusec, Joan - Psychology
Grynpas, Marc - Laboratory Medicine & Pathobiology
Grzymski, Krzysztof - Near & Middle Eastern Civilizations
Gu, Yi - Art
Gualtieri, Marco - Mathematics
Guardiani, Francesco - Italian
Guenther, Axel - Mechanical & Industrial Engineering
Guha, Abhijit - Medical Science
Guidos, Cynthia - Immunology
Guisso, Richard Wl - East Asian Studies
Gulak, Glenn - Electrical & Computer Engineering
Gulder, Omer - Aerospace Science & Engineering
Gulsoy, Joseph - Spanish
Gunderson, Erik - Classics
Gunderson, Morley - Economics
Gunning, Patrick - Chemistry
Gunz, Hugh - Management

Gupta, Neeru - Medical Science
Gurd, James - Biochemistry
Guth, Lawrence - Mathematics
Guttman, David - Cell & Systems Biology
Guttman, Irwin - Statistics
Guttman, Mary Alice - Adult Education & Counselling Psychology
Gwynne, Darryl - Ecology & Evolutionary Biology

H

Haas, Daniel - Dentistry
Haasz, Anthony - Aerospace Science & Engineering
Hache, Denis - Theory & Policy Studies in Education
Hacking, Ian - Philosophy
Hackworth, Jason - Geography
Haddow, Rodney - Political Science
Hadjigeorgiou, Ioannis (John) - Civil Engineering
Hadzilacos, Vassos - Computer Science
Hagan, John - Sociology
Hager, Michael - German
Haines, John - Music
Hakem, Razqallah - Medical Biophysics
Halewood, William - English
Haley, David - Psychology
Halfar, Jochen - Geology
Hall, Bert - History & Philosophy of Science & Technology
Halls, Henry - Geology
Halperin, J Stephen - Mathematics
Halperin, Mitchell - Medical Science
Halpern, Eric (Rick) - History
Hamel, Paul - Laboratory Medicine & Pathobiology
Hamilton, Gillian - Economics
Hamilton, Michael - Geology
Hampson, David - Pharmaceutical Sciences
Handley, Antoinette - Political Science
Hanley, Anthony - Nutritional Sciences
Hanna, Gila - Curriculum, Teaching & Learning
Hannah, Mary - Health Policy, Management & Evaluation
Hannah-Moffat, Kelly - Sociology
Hannigan, John - Sociology
Hansen, Jorn - Aerospace Science & Engineering
Hansen, Randall - Political Science
Haque, Wahidul - Mathematics
Harley, Birgit - Curriculum, Teaching & Learning
Harney, Elizabeth - Art
Harper, Patricia - Pharmacology & Toxicology
Harrak, Amir - Near & Middle Eastern Civilizations
Harrington, Lea Anne - Medical Biophysics
Harris, Jennifer - Religion
Harris, Tony - Cell & Systems Biology
Harrison, Alexander - Chemistry
Harrison, Rene - Cell & Systems Biology
Harrison, Robert - Medical Science
Harrison, Timothy - Near & Middle Eastern Civilizations
Hartenberger, J Russell - Music
Harvey, Bart - Public Health Sciences
Harvey, Edward - Sociology
Harvey, Elisabeth Ruth - English
Harvey, Elizabeth - English
Harvey, Harold - Ecology & Evolutionary Biology
Harvey, Leslie - Geography

Harvey, William - Medical Science
Hasenkampf, Clare - Cell & Systems Biology
Hasher, Lynn - Psychology
Hastings, John Ef - Health Policy, Management & Evaluation
Hatzinakos, Dimitrios - Electrical & Computer Engineering
Hatzis, Christos - Music
Hauer, Ezra - Civil Engineering
Havercroft, Barbara - French
Hawken, George - Art
Hawker, Gillian - Health Policy, Management & Evaluation
Hawkins, Cynthia - Laboratory Medicine & Pathobiology
Hawkins, Scott - Management
Hawkins, Sean - History
Hay, John - Immunology
Hayhoe, Ruth - Theory & Policy Studies in Education
Hayne, Barrie - English
Head, Martin - Geology
Healey, Antonette - Medieval Studies
Heath, Joseph - Philosophy
Heathcote, Elizabeth Jenny - Medical Science
Hebert, Philip - Medical Science
Hedley, David - Medical Biophysics
Heerklotz, Heiko - Pharmaceutical Sciences
Heersche, Johannes - Dentistry
Hegele, Richard - Laboratory Medicine & Pathobiology
Hehmeyer, Ingrid - History & Philosophy of Science & Technology
Hehner, Eric - Computer Science
Hejazi, Walid - Management
Helleiner, Gerald - Economics
Heller, Monica - Sociology & Equity Studies in Education
Hellie, Benjamin - Philosophy
Helms-Park, Rena - Curriculum, Teaching & Learning
Helmstadter, Richard - History
Helmy, Amr - Electrical & Computer Engineering
Helwig, Charles - Psychology
Hempel, Wolfgang - German
Henderson, Grant - Geology
Henderson, Greig - English
Henderson, Jeffrey - Pharmaceutical Sciences
Henkelman, Mark - Medical Biophysics
Heon, Elise - Medical Science
Herman, C Peter - Psychology
Herman, Peter - Electrical & Computer Engineering
Herren, Michael - Medieval Studies
Herridge, Margaret - Medical Science
Herrmann, Nathan - Medical Science
Hertzmann, Aaron - Computer Science
Heslegrave, Ronald - Exercise Sciences
Hess, Paul - Geography
Hewitt, David - Public Health Sciences
Hewitt, James - Curriculum, Teaching & Learning
Hewitt, Marsha - Religion
Heximer, Scott - Physiology
Higgs, David - History
Hildyard, Angela - Theory & Policy Studies in Education
Hill, Colin - English
Hill, Richard - Medical Biophysics
Hillan, Edith - Nursing Science

Hindmarsh, K Wayne - Pharmaceutical Sciences
Hinek, Aleksander - Laboratory Medicine & Pathobiology
Hinton, Geoffrey - Computer Science
Hinz, J. Boris - Dentistry
Hirschl, Ran - Political Science
Hirst, Graeme - Computer Science
Hodges, Brian - Theory & Policy Studies in Education
Hodnett, Ellen - Nursing Science
Hodson, Derek - Curriculum, Teaching & Learning
Hoff, Frank - East Asian Studies
Hoffmann, Richard - Medieval Studies
Hofmann, Ronald - Civil Engineering
Hogg, David - Medical Science
Hogg-Johnson, Sheilah - Public Health Sciences
Holbrook, Anne - Pharmaceutical Sciences
Holdom, Bob - Physics
Holladay, Jr., John - Near & Middle Eastern Civilizations
Holland, Kate - Slavic
Hollander, Samuel - Economics
Holness, D Linn - Public Health Sciences
Hood, Adrienne - History
Hooper, Frank - Mechanical & Industrial Engineering
Hooton, R Douglas - Civil Engineering
Hope, Ole-Kristian - Management
Horgen, Paul - Cell & Systems Biology
Horner, Richard - Medical Science
Horowitz, Gad - Political Science
Horst, Sandra - Music
Horstmann, Ignatius - Management
Hosios, Arthur - Economics
Hough, Margaret - Laboratory Medicine & Pathobiology
Houry, Walid - Biochemistry
Howard, Kenneth - Geology
Howard, William - English
Howarth, Lynne - Information Studies
Howell, Doris - Nursing Science
Howell, Lynne - Biochemistry
Howell, Nancy - Sociology
Howson, Colin - Philosophy
Howson, Susan - Economics
Hsiung, Ping-Chun - Sociology
Hu, Jim - Laboratory Medicine & Pathobiology
Hubbes, Martin - Forestry
Hudson, Christopher - Medical Science
Hudson, Thomas J - Medical Biophysics
Hughes, Andrew - Music
Hughes, Peter - Aerospace Science & Engineering
Hughes, Timothy - Molecular Genetics
Hui, Chi-Chung - Molecular Genetics
Hulchanski, J David - Social Work
Hull, James - History & Philosophy of Science & Technology
Hull, John - Management
Hum, Sean - Electrical & Computer Engineering
Hume, James - Computer Science
Humphries, Thomas - Human Development & Applied Psychology
Huneman, Philippe - History & Philosophy of Science & Technology
Hung, Rayjean - Public Health Sciences
Hunt, Prof. Emeritus, John - Medical Biophysics

Hunter, Mark - Geography
Hurdle, Vanolin - Civil Engineering
Hurka, Thomas - Philosophy
Husain, Mansoor - Laboratory Medicine & Pathobiology
Hutcheon, Linda - English
Hutchinson, Douglas - Philosophy
Hutchison, Ann - Medieval Studies
Hutchison, William - Physiology
Hwang, Paul Als - Medical Science
Hyatt, Douglas - Industrial Relations & Human Resources
Hyde, Martyn - Speech-Language Pathology
Hynes, J Allan - Economics
Hynynen, Kullervo - Medical Biophysics

I

Iacobucci, Edward - Law
Iacovetta, Franca - History
Iizuka, Keigo - Electrical & Computer Engineering
Ikura, Mitsuhiko - Medical Biophysics
Im, Miah - Music
Inaba, Tadanobu - Pharmacology & Toxicology
Ingham, John - History
Ingles, C James - Biochemistry
Inman, Robert - Medical Science
Inwood, Brad - Classics
Inzlicht, Michael - Psychology
Ippolito, Michela - Linguistics
Iravani, Mohammad - Electrical & Computer Engineering
Iribarne, Louis - Slavic
Irving, Howard - Social Work
Irwin, David - Laboratory Medicine & Pathobiology
Irwin, Marjorie - Classics
Irwin, Meredith - Medical Science
Isajiw, Wsevolod - Sociology
Iscove, Norman - Medical Biophysics
Iseke-Barnes, Judy - Sociology & Equity Studies in Education
Isenman, David - Biochemistry
Israel, Milton - History
Ito, Shinya - Pharmacology & Toxicology
Ivrii, Victor - Mathematics
Iwama, Michael - Occupational Science & Occupational Therapy

J

Jaakson, Reiner - Geography
Jackson, Donald - Ecology & Evolutionary Biology
Jackson, Heather - English
Jackson, James - English
Jackson, Kenneth - Computer Science
Jackson, Nancy - Adult Education & Counselling Psychology
Jacobs, Allan - Physics
Jacobs, Ira - Exercise Sciences
Jacobsen, Hans-Arno - Electrical & Computer Engineering
Jadad, Alejandro - Health Policy, Management & Evaluation
Jaffe, Audrey - English
Jaffray, David - Medical Biophysics
Jaglal, Susan - Physical Therapy

Jagoe, Eva-Lynn - Spanish
Jaimungal, Sebastian - Statistics
Jain, Kajri - Art
Jalland, R. Michael - Management
James, Daniel - Physics
James, David - Mechanical & Industrial Engineering
Jamieson, Gregory - Mechanical & Industrial Engineering
Janischewskyj, Wasyl - Electrical & Computer Engineering
Jankov, Robert - Physiology
Jardine, Andrew - Mechanical & Industrial Engineering
Jarvi, Keith - Medical Science
Jayawardhana, Ray - Astronomy & Astrophysics
Jeejeebhoy, Khursheed - Nutritional Sciences
Jeffrey, Lisa - Mathematics
Jenkins, David Ja - Nutritional Sciences
Jenkins, Jennifer - History
Jenkins, Jennifer - Human Development & Applied Psychology
Jennings, Eric - History
Jepson, Allan - Computer Science
Jerrard, Robert - Mathematics
Jervis, Robert - Chemical Engineering & Applied Chemistry
Jewett, Michael - Medical Science
Jia, Charles - Chemical Engineering & Applied Chemistry
Jia, Zhengping - Physiology
Jin, Tianru - Medical Science
Jockusch, Rebecca - Chemistry
John, Sajeev - Physics
Johns, Alana - Linguistics
Johns, David Andrew - Electrical & Computer Engineering
Johnson, Carla - Speech-Language Pathology
Johnson, Elizabeth - Psychology
Johnson, Robert - History
Johnson, Stephen - Drama
Johnston, Alexandra - English
Johnston, Gregory - Music
Johnston, K. Wayne - Biomedical Engineering
Johnston, Miles - Laboratory Medicine & Pathobiology
Jokstad, Asbjorn - Dentistry
Jones, Alexander - Classics
Jones, Charles - Sociology
Jones, Dylan - Physics
Jones, Glen - Theory & Policy Studies in Education
Jones, Nicola - Physiology
Jongstra, Jan - Immunology
Joordens, Steve - Psychology
Jordan, Anne - Curriculum, Teaching & Learning
Jorgensen, Annelise - Biochemistry
Joshee, Reva - Theory & Policy Studies in Education
Joshi-Sukhwal, Sadhna - Molecular Genetics
Josselyn, Sheena - Medical Science
Jothy, Serge - Laboratory Medicine & Pathobiology
Joy, Michael - Electrical & Computer Engineering
Julian, Stephen - Physics
Julius, Michael - Immunology
Jump, Gregory - Economics
Jung, Courtney - Political Science
Jurdjevic, Velimir - Mathematics

Jurisica, Igor - Medical Biophysics
Jurisicova, Andrea - Physiology
Justice, Daniel - English

K

Kaczynski, Bernice - Medieval Studies
Kadar, Dezso - Pharmacology & Toxicology
Kain, Kevin - Laboratory Medicine & Pathobiology
Kalant, Harold - Pharmacology & Toxicology
Kalmar, Ivan - Anthropology
Kamel-Reid, Suzanne - Laboratory Medicine & Pathobiology
Kamnitzer, Joel - Mathematics
Kan, Raymond - Management
Kanaganayakam, Chelvanayakam - English
Kandel, Rita - Laboratory Medicine & Pathobiology
Kanelis, Voula - Chemistry
Kang, Yoon Jung - Linguistics
Kant, Shashi - Forestry
Kaplan, Allan - Medical Science
Kaplan, David - Molecular Genetics
Kaplan, Louis - Art
Kaplan, Sarah - Management
Kapovitch, Vitali - Mathematics
Kapral, Raymond - Chemistry
Kapur, Shitij - Medical Science
Kapus, Andras - Medical Science
Karmali, Mohamed - Public Health Sciences
Karney, Bryan - Civil Engineering
Karshon, Yael - Mathematics
Kasturi, Malavika - History
Katsougiannopoulou, Christina - Art
Katz, Ariel - Law
Katz, Bernard - Philosophy
Katz, Joel - Medical Science
Kaul, Rupert - Medical Science
Kavaler, Ethan Matt - Art
Kavanagh, Brian - Medical Science
Kawaji, Masahiro - Chemical Engineering & Applied Chemistry
Kawashima, Ken - East Asian Studies
Kay, Lewis - Molecular Genetics
Kazal, Russell - History
Keall, Edward - Near & Middle Eastern Civilizations
Keating, Armand - Medical Science
Keating, Daniel - Human Development & Applied Psychology
Kee, Hae-Young - Physics
Keeley, Frederick - Biochemistry
Keffer, James - Mechanical & Industrial Engineering
Keil, Charles - History
Keirstead, Thomas - East Asian Studies
Keith, Alison - Classics
Keller, Gordon - Medical Biophysics
Kelley, Shana - Pharmaceutical Sciences
Kelly, Brendan - Curriculum, Teaching & Learning
Kelner, Merrijoy - Public Health Sciences
Kelvin, David - Immunology
Kennedy, Christopher - Civil Engineering
Kennedy, James - Medical Science
Kennedy, John - Psychology

Kennedy, Sidney - Medical Science
Kenny, David - Dentistry
Kepe, Thembela - Geography
Kerbel, Robert - Medical Biophysics
Kerekes, Julie - Curriculum, Teaching & Learning
Kerman, Kagan - Chemistry
Kerr, Gretchen - Exercise Sciences
Kerslake, Lawrence - French
Kervin, John - Sociology
Keshavjee, Shafique - Medical Science
Kesik, Ted - Architecture, Landscape, & Design
Kesler, Olivera - Mechanical & Industrial Engineering
Key, Anthony - Physics
Keymer, Thomas - English
Khanin, Konstantin - Mathematics
Khanlou, Nazilla - Nursing Science
Kherani, Nazir - Electrical & Computer Engineering
Khesin, Boris - Mathematics
Khisti, Ashish - Electrical & Computer Engineering
Khokha, Rama - Medical Biophysics
Khovanskii, Askold - Mathematics
Kidd, Bruce - Exercise Sciences
Kilbourn, Brent - Curriculum, Teaching & Learning
Kim, Henry - Mathematics
Kim, Peter - Medical Science
Kim, Yong Baek - Physics
Kim, Young-June - Physics
King, Peter - Philosophy
King, Robert - Cinema Studies
Kingston, Paul - Political Science
Kingwell, Mark - Philosophy
Kippen, James - Music
Kirk, Donald - Chemical Engineering & Applied
  Chemistry
Kirkham, Michael - English
Kirsh, Bonnie - Occupational Science & Occupational
  Therapy
Kirton, John - Political Science
Kirzner, Eric - Management
Kish, Stephen John - Pharmacology & Toxicology
Kishen, Anil - Dentistry
Kivimae, Juri - History
Klassen, Pamela - Religion
Klausner, David - Medieval Studies
Kleber, Pia - Drama
Klein, Martin - History
Kleindienst, Maxine - Anthropology
Klip, Amira - Biochemistry
Kloppenborg, John - Religion
Klotz, Laurence - Medical Science
Kluger, Ronald - Chemistry
Knappett, Carl - Art
Knight, Julia - Public Health Sciences
Knight, Keith - Statistics
Knop, Karen - Law
Knowles, J Gary - Adult Education & Counselling
  Psychology
Koch, Christine - Medical Biophysics
Kochetov, Alexei - Linguistics
Koga, Midori - Music
Kohler, Jillian - Pharmaceutical Sciences

Kohn, Linda - Ecology & Evolutionary Biology
Kohn, Margaret - Political Science
Kolios, Michael - Medical Biophysics
Kolodny, Harvey - Management
Komaromi, Ann - Comparative Literature
Kontos, Alkis - Political Science
Kooy, Mary - Curriculum, Teaching & Learning
Kopstein, Jeffrey - Political Science
Koren, Gideon - Medical Science
Kornberg, Jacques - History
Kortschot, Mark - Chemical Engineering & Applied
  Chemistry
Kosnik, Clare - Curriculum, Teaching & Learning
Kotanen, Peter - Ecology & Evolutionary Biology
Kotra, Lakshmi - Pharmaceutical Sciences
Koudas, Nick - Computer Science
Koznarsky, Taras - Slavic
Kraemer, Gary - Psychology
Krahn, Murray - Health Policy, Management & Evaluation
Kramer, Christina - Slavic
Kramer, Lisa - Management
Krashinsky, Harry - Industrial Relations & Human
  Resources
Krashinsky, Michael - Industrial Relations & Human
  Resources
Krass, Dmitry - Management
Krause, Henry - Molecular Genetics
Kreiger, Nancy - Public Health Sciences
Krementsov, Nikolai - History & Philosophy of Science &
  Technology
Kremer, Philip - Philosophy
Krepinsky, Jiri - Molecular Genetics
Kresge, Alexander - Chemistry
Krieger, Peter - Physics
Krogh, Thomas - Geology
Krondl, Maria - Nutritional Sciences
Kronzucker, Herbert - Ecology & Evolutionary Biology
Krull, Ulrich - Chemistry
Kruspe, John - Music
Kruttschnitt, Candace - Sociology
Kschischang, Frank - Electrical & Computer Engineering
Kucharczyk, Walter - Medical Science
Kudla, Stephen - Mathematics
Kuebler, Wolfgang - Medical Science
Kulesha, Gary - Music
Kullmann, Dorothea - French
Kumacheva, Eugenia - Chemistry
Kunov, Hans - Electrical & Computer Engineering
Kupka, Ivan - Mathematics
Kushner, Eva - Comparative Literature
Kushner, Paul - Physics
Kutulakos, Kiriakos - Computer Science
Kwan, Hon - Physiology
Kwon, Roy - Mechanical & Industrial Engineering
Kwong, Raymond - Electrical & Computer Engineering

L

L'Abbe, Mary - Nutritional Sciences
Labrie, Normand - Curriculum, Teaching & Learning
Lahusen, Thomas - History

Laiken, Marilyn - Adult Education & Counselling Psychology
Lam, Ernest - Dentistry
Lam, Tong - History
Lam, Tony - Curriculum, Teaching & Learning
Lamb, Susan - English
Lambe, Evelyn - Physiology
Lambek, Michael - Anthropology
Lancashire, Anne - English
Lancashire, D Ian - English
Lanctot, Krista - Pharmacology & Toxicology
Landon, Richard - English
Lane, Byron - Biochemistry
Lang, Daniel - Theory & Policy Studies in Education
Lang, Norma - Social Work
Lange, Angela - Cell & Systems Biology
Lange, Lynda - Philosophy
Langille, Brian A - Law
Langins, Janis - History & Philosophy of Science & Technology
Lapkin, Sharon - Curriculum, Teaching & Learning
Laporte, Audrey - Health Policy, Management & Evaluation
Larsen, Ellen - Cell & Systems Biology
Latham, Gary - Management
Latta, Martha - Anthropology
Laufer, Edward - Music
Laupacis, Andreas - Health Policy, Management & Evaluation
Lautens, Mark - Chemistry
Lavers, Douglas - Electrical & Computer Engineering
Lavery, James - Public Health Sciences
Lavoie, Brigitte - Molecular Genetics
Lavoie, Philippe - Aerospace Science & Engineering
Lawrence, Herenia - Dentistry
Lawryshyn, Yuri - Chemical Engineering & Applied Chemistry
Lawson, Todd - Near & Middle Eastern Civilizations
Lawton, Stephen - Theory & Policy Studies in Education
Lazarus, Alan - Medical Science
Le, Dzung - Pharmacology & Toxicology
Le Huenen, Roland - French
Leake, James - Dentistry
LeBlanc, Julie - French
LeBlanc, Vicki - Medical Science
LeDuc, Lawrence - Political Science
Lee, Chi-Guhn - Mechanical & Industrial Engineering
Lee, E Stewart - Electrical & Computer Engineering
Lee, Kang - Human Development & Applied Psychology
Lee, Ping - Pharmaceutical Sciences
Lee, Richard - Anthropology
Lee, Sherry - Music
Leggatt, Alexander - English
Legge, Elizabeth Mm - Art
Lehleiter, Christine - German
Lehman, Shawn - Anthropology
Lehn, Peter - Electrical & Computer Engineering
Leiter, Lawrence Alan - Nutritional Sciences
Leith, Larry - Exercise Sciences
Leithwood, Kenneth - Theory & Policy Studies in Education

Lemieux-Charles, Louise - Health Policy, Management & Evaluation
Lemmens, Trudo - Law
Lemon, James - Geography
Lenskyj, Helen - Sociology & Equity Studies in Education
Leon, Pedro - Spanish
Leonard, Garry - English
Leonard, Kevin - Health Policy, Management & Evaluation
Leon-Garcia, Alberto - Electrical & Computer Engineering
Leprohon, Ronald - Near & Middle Eastern Civilizations
Leriche, William - Public Health Sciences
Leslie, Deborah - Geography
Lesperance, Yves - Computer Science
Lester, John - Astronomy & Astrophysics
Letarte, Michelle - Immunology
Lettieri, Michael - Italian
Levene, Mark - English
Levenson, Jill - English
Levere, Trevor - History & Philosophy of Science & Technology
Levesque, Celine - Dentistry
Levesque, Hector - Computer Science
Levi, Ofer - Biomedical Engineering
Levi, Ron - Criminology
Levin, Benjamin - Theory & Policy Studies in Education
Levine, Brian - Psychology
Levine, David - Theory & Policy Studies in Education
Levine, Joel - Ecology & Evolutionary Biology
Levinson, Wendy - Medical Science
Levit, Robert - Architecture, Landscape, & Design
Levitan, Robert - Medical Science
Levy, Evonne - Art
Levy, Gary - Medical Science
Lewis, Gary - Medical Science
Lewis, Marc - Human Development & Applied Psychology
Lewis, Peter - Biochemistry
Lewis, Robert - Geography
Li, Baochun - Electrical & Computer Engineering
Li, Hao - Economics
Li, Hao - Economics
Li, Peter Pun - Pharmacology & Toxicology
Li, Ren-Ke - Medical Science
Li, Tania - Anthropology
Li, Victor - English
Li, Yue - Management
Lian, Keryn - Materials Science & Engineering
Liang, Ben - Electrical & Computer Engineering
Lie, David - Electrical & Computer Engineering
Liebeherr, Jorg - Electrical & Computer Engineering
Liebgott, Bernard - Dentistry
Light, Matthew - Criminology
Lightman, Bernard - History & Philosophy of Science & Technology
Lightman, Ernie - Social Work
Liles, W. Conrad - Medical Science
Lilge, Lothar - Medical Biophysics
Lilien, Ryan - Computer Science
Lim, Teng Joon - Electrical & Computer Engineering
Liman, Anthony - East Asian Studies
Limeback, Hardy - Dentistry

Lin, Frank - Mechanical & Industrial Engineering
Lin, Xiaodong - Statistics
Lindheim, Ralph - Slavic
Lindsay, Peter - Human Development & Applied Psychology
Lindsay, Thomas - Medical Science
Lingard, Lorelei - Theory & Policy Studies in Education
Lingwood, Clifford - Laboratory Medicine & Pathobiology
Links, Paul - Medical Science
Lipshitz, Howard - Molecular Genetics
Litherland, Albert - Physics
Liu, An Te - Architecture, Landscape, & Design
Liu, Fei-Fei - Medical Biophysics
Liu, Geoffrey - Medical Biophysics
Liu, Hugh - Aerospace Science & Engineering
Liu, Johanna Ch'ien-mei - East Asian Studies
Liu, Jun - Molecular Genetics
Liu, Mingyao - Medical Science
Liu, Peter - Medical Science
Liu, Peter - Physiology
Liu, Qinya - Physics
Livak, Leonid - Slavic
Livingstone, David - Sociology & Equity Studies in Education
Llewellyn-Thomas, Hilary - Health Policy, Management & Evaluation
Lloyd, Sue - Art
Lloyd, Trevor - History
Lo, Hoi-Kwong - Electrical & Computer Engineering
Lo, Marieme - Women & Gender Studies
Lobsinger, Mary Lou - Architecture, Landscape, & Design
Locke, Marius - Exercise Sciences
Locker, David - Dentistry
Lockhart, Robert - Psychology
Locklin, Reid - Religion
Lockwood, Penelope - Psychology
Loeb, Lori - History
Loewen, Che Anne - Music
Logan, Alexander - Health Policy, Management & Evaluation
Logan, Robert - Physics
Loisel, Patrick - Public Health Sciences
Lopez, Jeremy - English
Lopez-Fernandez, Hernan - Ecology & Evolutionary Biology
Lord, Michel - French
Lorimer, Joseph - Mathematics
Lou, Wen-Yi Wendy - Public Health Sciences
Lovejoy, David - Cell & Systems Biology
Lovejoy, Nathan Richard - Ecology & Evolutionary Biology
Low, Donald - Laboratory Medicine & Pathobiology
Lowman, Julian - Astronomy & Astrophysics
Lozano, Andres - Medical Science
Lu, Wei Yang - Medical Science
Lu, Zheng-Hong - Materials Science & Engineering
Lukacs, Gergely - Biochemistry
Luke, Michael - Physics
Lumsden, Charles - Medical Science
Luong, Hy Van - Anthropology
Luste, George - Physics

Lutz, R.Theodore - Near & Middle Eastern Civilizations
Luus, Rein - Chemical Engineering & Applied Chemistry
Lye, Stephen - Physiology
Lynch, Deidre - English
Lynn, Richard - East Asian Studies
Lyons, Renee - Public Health Sciences

M

Mabury, Scott - Chemistry
Macarthur, Colin - Health Policy, Management & Evaluation
MacDonald, Geoffrey - Psychology
MacDonald, John - Physiology
MacDonald, Kelly - Medical Science
MacDonald, Ken - Geography
Macdonald, Lorna - Music
Macdonald, Peter - Chemistry
Macdonald, Robert - Medical Science
MacDonald, Russell - Medical Science
MacDowell, Laurel - History
MacFadden, Robert - Social Work
Macgregor, Robert - Pharmaceutical Sciences
Macintosh, Jeffrey - Law
Mackay, Donald - Chemical Engineering & Applied Chemistry
MacKay, Gillian - Music
Mackay, William - Physiology
MacKeigan, Linda - Pharmaceutical Sciences
Macklem, Patrick - Law
Macklin, Audrey - Law
Maclaren, Virginia - Geography
MacLean, Heather - Civil Engineering
Maclennan, David - Biochemistry
MacMillan, Margaret - History
MacNeil, Heather - Information Studies
MacNeill, Margaret - Exercise Sciences
Macpherson, Jay - English
Magee, John - Classics
Magee, William - Sociology
Magen, Avner - Computer Science
Maggiore, Manfredi - Electrical & Computer Engineering
Magill, Dennis - Sociology
Magnusson, Jamie-Lynn - Theory & Policy Studies in Education
Magnusson, Lynne - English
Magocsi, Paul - Political Science
Maheu, John - Economics
Mahrt-Smith, Jan - Management
Mahuran, Don - Laboratory Medicine & Pathobiology
Mai, Jens-Erik - Information Studies
Mainwaring, Lynda - Exercise Sciences
Mak, Tak - Medical Biophysics
Maki, Brian - Medical Science
Makis, Viliam - Mechanical & Industrial Engineering
Malcolm, Jay - Forestry
Malkin, David - Medical Science
Mandel, Jack - Public Health Sciences
Mandelis, Andreas - Mechanical & Industrial Engineering
Mann, Henry - Pharmaceutical Sciences
Mann, Robert - Public Health Sciences
Mann, Steve - Electrical & Computer Engineering

Manners, Ian - Chemistry
Manolson, Morris - Dentistry
Manoukian, Armen - Medical Biophysics
Manzer, Ronald - Political Science
Marbach, Peter Josef - Computer Science
Marjoribanks, Robin - Physics
Marker, Frederick - English
Marks, Alexander - Biochemistry
Marowsky, Gerd - Electrical & Computer Engineering
Marrett, Loraine - Public Health Sciences
Marrus, Michael - History
Marsden, Philip - Medical Science
Marshall, John - Medical Science
Marshall, John - Religion
Marshall, Victor - Public Health Sciences
Marshman, Joan - Pharmaceutical Sciences
Martel, Anne - Medical Biophysics
Martell, David - Forestry
Martin, Alberto - Immunology
Martin, Douglas - Health Policy, Management & Evaluation
Martin, John - Physics
Martin, Kenneth - Electrical & Computer Engineering
Martin, Peter - Theoretical Astrophysics
Martin, Roger - Management
Martino, Rosemary - Speech-Language Pathology
Martins, Joaquim - Aerospace Science & Engineering
Marziali, Elsa - Social Work
Mascall, Blair - Theory & Policy Studies in Education
Mason, Andrew - Ecology & Evolutionary Biology
Mason, Hugh - Classics
Massam, Diane - Linguistics
Massey, John - Art
Masson, David - Mathematics
Mathewson, Gilbert - Economics
Mathon, Rudolf - Computer Science
Matthen, Mohan - Philosophy
Matthews, Robert - Political Science
Matthews, Stephen - Physiology
Matus, Jill - English
Matzner, Christopher - Astronomy & Astrophysics
Mavalwala, Jamshed D - Anthropology
May, Albert - Physics
Mayer, Hartwig - German
Mayhall, John - Dentistry
Mazumdar, Pauline - History & Philosophy of Science & Technology
Mazzulli, Tony - Laboratory Medicine & Pathobiology
McAndrews, Mary Patricia - Psychology
McCabe, Brenda - Civil Engineering
McCahan, Susan - Mechanical & Industrial Engineering
McCann, Robert - Mathematics
McCarney, Patricia - Political Science
McClelland, John Alan - French
McClelland, Ryan - Music
McConica, James - Medieval Studies
McCool, James - Mathematics
McCourt, Peter - Cell & Systems Biology
McCrindle, Brian - Medical Science
McCulloch, Christopher - Dentistry
Mcculloch, Ernest - Medical Biophysics

McCurdy, Thomas - Management
McDonald, Lynn - Social Work
McDonough, Christopher - Classics
Mcdonough, Peggy - Public Health Sciences
McDougall, Douglas - Curriculum, Teaching & Learning
McDunnough, Philip - Statistics
McElhinny, Bonnie - Anthropology
McEvily, William - Management
McGahan, Anita - Management
McGillis, Linda - Nursing Science
McGilton, Kathy - Nursing Science
Mcglade-Dolson, Jane - Medical Biophysics
McGowan, Mark - History
McGregor, Deborah - Geography
McGuigan, Alison - Chemical Engineering & Applied Chemistry
McIlraith, Sheila - Computer Science
McIlroy, William - Physical Therapy
McInnes, Roderick - Molecular Genetics
McIntire, C. Thomas - Religion
McIntosh, Anthony Randal - Psychology
McIsaac, Warren - Medical Science
McKee, Nancy - Medical Science
McKeever, Patricia - Nursing Science
McKerlie, Colin - Laboratory Medicine & Pathobiology
McKneally, Martin - Medical Science
Mclaughlin, John Ross - Public Health Sciences
Mclaughlin, Peter - Medical Science
McLaurin, Joanne - Laboratory Medicine & Pathobiology
Mclean, Alexander - Materials Science & Engineering
McLean, Stewart - Chemistry
McLennan, Deborah - Ecology & Evolutionary Biology
McLeod, Kenneth - Music
Mcleod, Robert - English
McLeod, Robin - Health Policy, Management & Evaluation
McMillan, Robert - Economics
McMillen, David - Chemistry
McNeill, Helen - Molecular Genetics
McPherson, J. Peter - Pharmacology & Toxicology
McQuibban, Angus - Biochemistry
Meacham, Tirzah - Near & Middle Eastern Civilizations
Medin, Jeffrey - Medical Biophysics
Meeks, Donald - Social Work
Meguid, Shaker - Mechanical & Industrial Engineering
Mehta, Nitin - Management
Meinrenken, Eckhard - Mathematics
Melino, Angelo - Economics
Mendelsohn, Eric - Mathematics
Meneghini, Marc - Molecular Genetics
Meng, Yue - East Asian Studies
Menzefricke, Ulrich - Management
Menzinger, Michael - Chemistry
Merrilees, Brian - French
Messner, Hans - Medical Science
Metcalfe, Kelly - Nursing Science
Metso, Sarianna - Near & Middle Eastern Civilizations
Meyer, Jeffrey - Medical Science
Meyerson, Mark - History
Meyn, Michael - Molecular Genetics
Miall, Andrew - Geology

Michelson, William - Sociology
Michelucci, Pascal - French
Miezitis, Solveiga - Adult Education & Counselling
  Psychology
Mihailidis, Alex - Occupational Science & Occupational
  Therapy
Mikhailova, Julia - Slavic
Mikulis, David - Medical Science
Miles, Angela - Adult Education & Counselling
  Psychology
Milgram, Norton - Psychology
Milgram, Paul - Mechanical & Industrial Engineering
Milkereit, Bernd - Physics
Miller, Anthony - Public Health Sciences
Miller, Eric - Civil Engineering
Miller, Fiona - Health Policy, Management & Evaluation
Miller, Freda - Molecular Genetics
Miller, Heather - Anthropology
Miller, John - Curriculum, Teaching & Learning
Miller, Judith - Medical Science
Miller, R J Dwayne - Chemistry
Miller, Renee - Computer Science
Miller, Richard - Medical Biophysics
Millgate, Jane - English
Millgate, Michael - English
Mills, James - Mechanical & Industrial Engineering
Mills, Kenneth - History
Mills, Linda - Physiology
Millson, Margaret - Public Health Sciences
Milman, Pierre - Mathematics
Milner, Joseph - Management
Mims, Charles - Chemical Engineering & Applied
  Chemistry
Minassian, Berge - Medical Science
Minden, Mark - Medical Biophysics
Minkin, Salomon - Medical Biophysics
Minta, Joe - Laboratory Medicine & Pathobiology
Mirchandani, Kiran - Adult Education & Counselling
  Psychology
Miron, John - Geography
Misak, Cheryl - Philosophy
Misgeld, Dieter - Theory & Policy Studies in Education
Mishna, Faye - Social Work
Mitchell, Andrew - Management
Mitchell, Carl - Geography
Mitchell, Jane - Pharmacology & Toxicology
Mitchell, Jennifer - Cell & Systems Biology
Mitchell, Matthew - Management
Mitrovica, Jerry - Physics
Mittermaier, Amira - Religion
Mochnacki, Stefan - Astronomy & Astrophysics
Mock, David - Dentistry
Moe, Gordon - Medical Science
Moffat, Jason - Molecular Genetics
Moggridge, Donald - Economics
Moghal, Nadeem - Medical Biophysics
Mogridge, Jeremy - Laboratory Medicine & Pathobiology
Mohanty, Bibhuti - Civil Engineering
Mojab, Shahrzad - Adult Education & Counselling
  Psychology

Mojahedi, Mohammad - Electrical & Computer
  Engineering
Moldofsky, Harvey - Medical Science
Moldoveanu, Mihnea (Michael) - Management
Molloy, Michael - Computer Science
Moncalvo, Jean-Marc - Ecology & Evolutionary Biology
Monks, Ashley - Psychology
Monnier, Philippe - Physiology
Moodley, Roy - Adult Education & Counselling
  Psychology
Moody, Alan - Medical Science
Moon, Dae-Sik - Astronomy & Astrophysics
Moore, Chris - Human Development & Applied
  Psychology
Moore, GW Kent - Physics
Moore, Malcolm - Pharmacology & Toxicology
Moorthy, Sridhar - Management
Moraglia, Giampaolo - Psychology
Moran, Laurence - Biochemistry
Moran, Mayo - Law
Moran, Michael - Molecular Genetics
Moreau, Stephanie Sophia - Law
Morgan, Cecilia Louise - Theory & Policy Studies in
  Education
Morgan, Edward - Law
Morgan, Kathryn - Philosophy
Morgenstern, Naomi - English
Mori, Jennifer - History
Morris, Glenn - Ecology & Evolutionary Biology
Morris, Quaid - Molecular Genetics
Morris, Robert - Chemistry
Morris, Stephen - Physics
Morrison, Margaret - Philosophy
Morshead, Cindi Marie - Medical Science
Morton, Desmond - History
Moscarello, Mario - Biochemistry
Moscovitch, Morris - Psychology
Moses, Alan - Cell & Systems Biology
Moshovos, Andreas - Electrical & Computer Engineering
Most, Andrea - English
Mostaghimi, Javad - Mechanical & Industrial Engineering
Motsch, Andreas - French
Mount, Howard - Medical Science
Mount, Nick - English
Mrosovsky, Nicholas - Cell & Systems Biology
Muhlebach, Andrea - Anthropology
Mulchahey, M. Michele - Medieval Studies
Mullin, Amy - Philosophy
Mulsant, Benoit - Medical Science
Mundy, Karen - Adult Education & Counselling
  Psychology
Mungall, James - Geology
Munjic, Sanda - Spanish
Munro, D Scott - Geography
Munro, Ian - Nutritional Sciences
Munro, John - Economics
Muntaner, Carles - Nursing Science
Murasugi, Kunio - Mathematics
Murialdo, Helios - Molecular Genetics
Murnaghan, Fiona - Mathematics
Murphy, Jennifer - Chemistry

Murphy, Kelly - Psychology
Murphy, Michelle - History
Murphy, Robert - Ecology & Evolutionary Biology
Murray, Alexander - History
Murray, Heather - English
Murray, Jacqueline - Medieval Studies
Murray, Norman - Theoretical Astrophysics
Murray, Robert - Biochemistry
Murty, Vijayakumar - Mathematics
Musisi, Nakanyike - History
Mustard, Cameron - Public Health Sciences
Muzzin, Linda - Theory & Policy Studies in Education
Myers, Ted - Public Health Sciences
Myles, John - Sociology
Mylopoulos, John - Computer Science

N

Nabutovsky, Alexander - Mathematics
Nachman, Adrian - Mathematics
Nag, Sukriti - Laboratory Medicine & Pathobiology
Nagata, Shuichi - Anthropology
Nagel, Jennifer - Philosophy
Naglie, I. Gary - Health Policy, Management & Evaluation
Naguib, Hani - Mechanical & Industrial Engineering
Nagy, Andras - Molecular Genetics
Nagy, Naomi - Linguistics
Nagy, Philip - Curriculum, Teaching & Learning
Nairn, John - Pharmaceutical Sciences
Najm, Farid - Electrical & Computer Engineering
Najman, Hindy - Religion
Nakajima, Kazuko - East Asian Studies
Naldrett, Anthony - Geology
Nambara, Eiji - Cell & Systems Biology
Naranjo, Claudio - Pharmacology & Toxicology
Narod, Steven - Public Health Sciences
Nash, Joanne - Cell & Systems Biology
Nautiyal, Jagdish - Forestry
Navarre, William - Molecular Genetics
Naylor, C. David - Public Health Sciences
Ndayiragije, Juvenal - French
Neal, Radford - Statistics
Nedelsky, Jennifer R - Political Science
Neel, Benjamin - Medical Biophysics
Neglia, Erminio - Spanish
Nejat, Goldie - Mechanical & Industrial Engineering
Nelson, Sioban - Nursing Science
Nelson, Wendy - History
Nesselroth, Peter - French
Netterfield, C. Barth - Astronomy & Astrophysics
Neuman, Shirley - English
Neumann, A Wilhelm - Mechanical & Industrial Engineering
Nevitte, Neil - Political Science
Newman, Judith - Religion
Newman, Peter - Social Work
Newman, Roger Charles - Chemical Engineering & Applied Chemistry
Newton, Melanie - History
Neysmith, Sheila - Social Work
Ng, Dominic - Physiology
Ng, Roxana - Adult Education & Counselling Psychology

Ng, Wai Tung - Electrical & Computer Engineering
Ni, Heyu - Laboratory Medicine & Pathobiology
Nicholson, Graeme - Religion
Niemeier, Matthias - Psychology
Nikiema, Emmanuel - French
Nishisato, Shizuhiko - Curriculum, Teaching & Learning
Nislow, Corey - Molecular Genetics
Nitz, Mark - Chemistry
Nobrega, Jose - Pharmacology & Toxicology
Noel, Janet - History
Nogami, Jun - Materials Science & Engineering
Norris, Geoffrey - Geology
North, Thomas - Materials Science & Engineering
Northrup, Linda - Near & Middle Eastern Civilizations
Norwich, Kenneth - Physiology
Novak, David - Religion
Noyek, Arnold - Public Health Sciences
Noyes, John - German
Nussbaum, David - Psychology
Nyquist, Mary - English

O

Oatley, Keith - Human Development & Applied Psychology
Obradovic, Dragana - Slavic
O'Brien, Peter John - Pharmaceutical Sciences
O'Brien-Pallas, Linda-Lee - Nursing Science
O'Campo, Patricia - Public Health Sciences
O'Connell, Joseph - Religion
O'Connor, Deborah - Nutritional Sciences
O'Day, Danton - Cell & Systems Biology
O'Donnell, Patrick - Physics
O'dowd, Brian - Pharmacology & Toxicology
Ohashi, Pam - Medical Biophysics
Ohh, Michael - Laboratory Medicine & Pathobiology
Ohlsson, Arne - Health Policy, Management & Evaluation
Okey, Allan - Pharmacology & Toxicology
Olivieri, Nancy - Medical Science
Olmsted, Marion - Medical Science
Olsen, Christopher - Theory & Policy Studies in Education
Olson, David - Human Development & Applied Psychology
Olson, Paul - Sociology & Equity Studies in Education
Ondrack, Daniel - Management
Opas, Michal - Laboratory Medicine & Pathobiology
Orbinski, James - Political Science
Orchard, Andrew - Medieval Studies
Orchard, Ian - Cell & Systems Biology
Oreopoulos, Phllip - Economics
Orr, Robert - Physics
Orser, Beverley - Physiology
Orwin, Clifford - Political Science
Orwin, Donna - Slavic
Osborn, Richard - Public Health Sciences
Osborne, Lucy - Molecular Genetics
Osborne, Martin - Economics
Ostapchuk, Victor - Near & Middle Eastern Civilizations
O'Toole, Roger - Sociology
Ottensmeyer, Peter - Medical Biophysics
Oxley, Joanne - Management

Ozcelik, Hilmi - Laboratory Medicine & Pathobiology
Ozin, Geoffrey - Chemistry

P
Pace-Asciak, Cecil - Pharmacology & Toxicology
Packer, Jeffrey - Civil Engineering
Packham, Marian - Biochemistry
Padro, Susan - Theory & Policy Studies in Education
Page-Gould, Elizabeth - Psychology
Pai, Emil - Biochemistry
Paige, Christopher - Medical Biophysics
Painter, Robert - Biochemistry
Paivio, Pia-Maria - Slavic
Palaniyar, Nades - Laboratory Medicine & Pathobiology
Palej, Norbert - Music
Palmert, Mark - Medical Science
Panesar, Daman - Civil Engineering
Pang, Cho - Medical Science
Pang, K Sandy - Pharmaceutical Sciences
Papangelakis, Vladimiros - Chemical Engineering &
  Applied Chemistry
Paradi, Joseph - Chemical Engineering & Applied
  Chemistry
Paramekanti, Arun - Physics
Park, Chul - Mechanical & Industrial Engineering
Parker, Brian - English
Parker, James - Music
Parker, John - Medical Science
Parker, Mary Ann - Music
Parker, Thomas - Medical Science
Parkin, Patricia - Medical Science
Parkinson, John - Biochemistry
Parra, Esteban - Anthropology
Pascal, Charles - Theory & Policy Studies in Education
Pasupathy, Subbarayan - Electrical & Computer
  Engineering
Paterson, Janet - French
Patrick, Dennis - Music
Patrick, Julian - English
Pauly, Louis - Political Science
Pauly, Peter - Management
Paus, Tomas - Psychology
Pavel, Lacra - Electrical & Computer Engineering
Pavliuc, Nicolae - Slavic
Pawson, Anthony - Molecular Genetics
Pearson, Christopher - Molecular Genetics
Pedretti, Erminia - Curriculum, Teaching & Learning
Peet, Amanda - Physics
Peever, John - Cell & Systems Biology
Pei, York Po-Chee - Medical Science
Pelletier, Janette - Human Development & Applied
  Psychology
Pelletier, Laurence - Molecular Genetics
Peltier, W Richard - Physics
Pen, Ue-Li - Theoretical Astrophysics
Pencharz, Paul - Nutritional Sciences
Penfold, Steven - History
Penn, Gerald - Computer Science
Penn, Linda - Medical Biophysics
Pennefather, Peter - Pharmaceutical Sciences
Penner, John - Molecular Genetics

Penninger, Josef - Medical Biophysics
Penslar, Derek - History
Percival, Anthony - Spanish
Percy, Carol - English
Percy, John - Astronomy & Astrophysics
Perez-Leroux, Ana Teresa - Spanish
Perlman, Michal - Human Development & Applied
  Psychology
Perovic, Doug - Materials Science & Engineering
Perron, Paul - French
Perz, John - Physics
Pesando, James - Economics
Peskin, Joan - Human Development & Applied
  Psychology
Peter, Elizabeth - Nursing Science
Peterson, Jordan - Psychology
Peterson-Badali, Michele - Human Development &
  Applied Psychology
Petit, Ted - Psychology
Petitto, Laura Ann - Psychology
Petronis, Arturas - Medical Science
Pfeiffer, Harald - Astronomy & Astrophysics
Pfeiffer, Susan - Anthropology
Phillips, David - Information Studies
Phillips, James - Law
Phillips, Mary - Chemical Engineering & Applied
  Chemistry
Phillips, Robert - Medical Biophysics
Philpott, Stuart - Anthropology
Pichora-Fuller, Kathy - Psychology
Pickavé, Martin - Philosophy
Pierson, Ruth - Sociology & Equity Studies in Education
Pietersma, Albert - Near & Middle Eastern Civilizations
Pietropaolo, Domenico - Italian
Pignol, Jean-Phillipe - Medical Biophysics
Pilliar, Robert - Dentistry
Pilzer, Joshua David - Music
Piquette-Miller, Micheline - Pharmaceutical Sciences
Piran, Niva - Adult Education & Counselling Psychology
Pirvulescu, Mihaela - French
Pitassi, Toniann - Computer Science
Pitchik, Carolyn - Economics
Plaks, Jason - Psychology
Plant, Richard - Drama
Plataniotis, Konstantinos - Electrical & Computer
  Engineering
Plewes, Donald - Medical Biophysics
Pliner, Patricia - Psychology
Plyley, Michael - Exercise Sciences
Poe, Anthony - Chemistry
Poland, Blake - Public Health Sciences
Polanyi, John - Chemistry
Polatajko-Howell, Helene - Occupational Science &
  Occupational Therapy
Polivy, Janet - Psychology
Pomes, Regis - Biochemistry
Ponomareff, Constantin - Slavic
Poole, Janet - East Asian Studies
Poon, Joyce - Electrical & Computer Engineering
Popovic, Milos - Biomedical Engineering
Poppitz, Erich - Physics

Portebois, Yannick - French
Portelli, John - Theory & Policy Studies in Education
Posner, Morton - Mechanical & Industrial Engineering
Post, Martin - Medical Science
Pouls Wegner, Mary-Ann - Near & Middle Eastern
  Civilizations
Poussier, Philippe - Immunology
Powell, John - Chemistry
Prado, Mariana - Law
Pratt, Jay - Psychology
Pratt, R Cranford - Political Science
Prentice, Alison - Theory & Policy Studies in Education
Pressnail, Kim - Civil Engineering
Price, Anthony - Geography
Pringle, Dorothy - Nursing Science
Pritzker, Kenneth - Laboratory Medicine & Pathobiology
Prive, Gil - Medical Biophysics
Prodic, Aleksandar - Electrical & Computer Engineering
Promane, Terry - Music
Prosser, Scott - Chemistry
Provart, Nicholas - Cell & Systems Biology
Prudham, Scott - Geography
Prud'homme, Gerald - Laboratory Medicine &
  Pathobiology
Pruessen, Ronald - History
Pugh, Charles - Mathematics
Pugh, Mary - Mathematics
Pugliese, Olga - Italian
Pulleyblank, David - Biochemistry
Purdham, James - Public Health Sciences
Puri, Mira - Medical Biophysics
Purtle, Jennifer - Art
Pysklywec, Russell - Geology

Q

Qian, Li - Electrical & Computer Engineering
Quaggin, Susan Elizabeth - Medical Science
Quarter, Jack - Adult Education & Counselling
  Psychology
Quastel, Jeremy - Mathematics
Quayson, Ato - English

R

Rabeneck, Linda - Public Health Sciences
Raby, David - History
Rackoff, Charles - Computer Science
Radforth, Ian - History
Radisic, Milica - Biomedical Engineering
Radomski, Manny - Exercise Sciences
Raffman, Diana - Philosophy
Ralph, Martin - Psychology
Rand, Margaret - Laboratory Medicine & Pathobiology
Rankin, Katharine - Geography
Rao, A Venketeshwer - Nutritional Sciences
Rao, Doreen - Music
Rao, Leticia - Medical Science
Rao, Vivek - Medical Science
Rapoport, Alexander - Music
Rappolt, Susan - Occupational Science & Occupational
  Therapy
Rast, Jonathan - Medical Biophysics

Ratcliffe, Michael - Immunology
Rattan, Gurpreet - Philosophy
Raught, Brian - Medical Biophysics
Rauth, A Michael - Medical Biophysics
Ravindran, Arun - Medical Science
Rawlinson, J Alan - Medical Biophysics
Ray, Ajit - Anthropology
Ray, Peter - Molecular Genetics
Rayside, David - Political Science
Razack, Sherene - Sociology & Equity Studies in
  Education
Read, Paul - Music
Read, Stanley - Medical Science
Reaume, Denise - Law
Redekop, Magdalene - English
Redelmeier, Donald - Health Policy, Management &
  Evaluation
Reeve, Douglas - Chemical Engineering & Applied
  Chemistry
Reeves, Scott - Medical Science
Regehr, Cheryl - Social Work
Regehr, Glenn - Theory & Policy Studies in Education
Regier, Henry - Environment
Rehm, Jurgen - Public Health Sciences
Reibetanz, John - English
Reich, Peter - Linguistics
Reid, Denise - Occupational Science & Occupational
  Therapy
Reid, Dennis - Art
Reid, Frank - Economics
Reid, Lloyd - Aerospace Science & Engineering
Reid, Nancy - Statistics
Reid, Stephen - Cell & Systems Biology
Reilly, James - Near & Middle Eastern Civilizations
Reilly, Raymond - Pharmaceutical Sciences
Reingold, Eyal - Psychology
Reis, Marciano - Laboratory Medicine & Pathobiology
Reisz, Robert - Ecology & Evolutionary Biology
Reithmeier, Reinhart - Biochemistry
Reitz, Jeffrey - Sociology
Relph, Edward - Geography
Remington, Gary - Medical Science
Remis, Robert - Public Health Sciences
Renwick, Rebecca - Occupational Science &
  Occupational Therapy
Repka, Joseph - Mathematics
Restuccia, Diego - Economics
Retallack, James - History
Reuber, Rebecca - Management
Revermann, Martin - Drama
Reynolds, Jeffrey - Music
Reynolds, Roger - Medieval Studies
Reznick, Richard - Medical Science
Ricco, John - Art
Rice, Keren - Linguistics
Richards, Larry - Architecture, Landscape, & Design
Richards, Robin - Medical Science
Richardson, Christopher - Medical Biophysics
Richardson, Douglas - Art
Richardson, G Peter - Religion
Richardson, Gordon - Management

Richardson, Susan - Laboratory Medicine & Pathobiology
Riddick, David - Pharmacology & Toxicology
Riendeau, Pascal - French
Ries, Timothy - Music
Rigg, Arthur George - Medieval Studies
Riggs, Charles - Cell & Systems Biology
Rindisbacher, Marcel - Management
Ringuette, Maurice - Cell & Systems Biology
Rini, James - Molecular Genetics
Ripstein, Arthur S - Law
Rising, James - Ecology & Evolutionary Biology
Rist, John - Classics
Rittich, Kerry - Law
Roach, Kent - Law
Robbins, Emmet - Classics
Roberge, Yves - French
Robertson, Ann - Public Health Sciences
Robertson, Ian - History
Robertson, Janice - Laboratory Medicine & Pathobiology
Robin, Pierre-Yves F - Geology
Robins, William - English
Robinson, Brian - Biochemistry
Robinson, Thomas - Philosophy
Robinson, Vincent - Geography
Robson, Ann - History
Rocheleau, Jonathan - Biomedical Engineering
Rochon, Elizabeth - Speech-Language Pathology
Rochon, Paula - Health Policy, Management & Evaluation
Rockel, Stephen - History
Rodd, F. Helen - Ecology & Evolutionary Biology
Roder, John - Molecular Genetics
Rodin, Gary - Medical Science
Rodriguez, Nestor - Spanish
Rogers, Tracy - Anthropology
Rogerson, Carol - Law
Roifman, Chaim - Immunology
Rolheiser, N Carol - Curriculum, Teaching & Learning
Rolph, Wendy - Spanish
Rolston, Shauna - Music
Roman, Richard - Sociology
Romans, Patricia - Cell & Systems Biology
Romans, Sarah - Medical Science
Rommens, Johanna - Molecular Genetics
Rooney, Paul - Mathematics
Roorda, Matthew - Civil Engineering
Rootman, David - Medical Science
Rose, David - Medical Biophysics
Rose, Jonathan - Electrical & Computer Engineering
Rosenblum, Norman - Medical Science
Rosenthal, Jeffrey - Statistics
Rosenthal, Peter - Mathematics
Ross, Bernard - Medical Biophysics
Ross, Heather - Medical Science
Ross, Jill - Comparative Literature
Ross, Robert Bruce - Dentistry
Ross, Seamus - Information Studies
Rossant, Janet - Molecular Genetics
Rosser, Walter - Public Health Sciences
Rossos, Andrew - History
Rotenberg, Wendy - Management
Rothman, Natalie - History

Rotin, Daniela - Biochemistry
Rotman, Regina - Mathematics
Rotstein, Abraham - Political Science
Rotstein, Ori - Medical Science
Rottapel, Robert - Immunology
Rotundo, Maria - Management
Rourke, Sean - Medical Science
Rovet, Joanne - Human Development & Applied Psychology
Rowe, David - Physics
Rowe, Locke - Ecology & Evolutionary Biology
Roweis, Shoukry - Geography
Rowe-Magnus, Dean - Laboratory Medicine & Pathobiology
Rowlands, John - Medical Biophysics
Rowley, Timothy - Management
Roy, Dibyendu - Forestry
Roy, Eric - Rehabilitation Science
Roy, Peter John - Molecular Genetics
Rozakis-Adcock, Maria - Laboratory Medicine & Pathobiology
Rozemond, Marleen - Philosophy
Rubenfeld, Gordon - Medical Science
Rubin, Barry - Medical Science
Rubin, Laurence - Medical Science
Rubincam, Catherine - Classics
Rubinoff, Arthur - Political Science
Rubinstein, John - Biochemistry
Rubinstein, John L - Biochemistry
Rucklidge, John - Geology
Ruda, Harry - Materials Science & Engineering
Ruddick, Susan - Geography
Ruehrdanz, Karin - Near & Middle Eastern Civilizations
Rummens, Anneke - Medical Science
Rupp, Stephen - Spanish
Rush, Brian - Public Health Sciences
Russell, Paul - Political Science
Russell, Peter - Political Science
Ruti, Marjut - English
Rutka, James - Laboratory Medicine & Pathobiology
Rutter, John - Materials Science & Engineering
Ryan, James - Theory & Policy Studies in Education
Ryan, Jennifer - Psychology
Ryu, William - Physics

S

Sa, Creso - Theory & Policy Studies in Education
Saas, Christa - German
Sadavoy, Joel - Medical Science
Saddlemyer, Ann - English
Sadowski, Paul - Molecular Genetics
Safarian, Albert - Management
Sage, Rowan - Ecology & Evolutionary Biology
Sage, Tammy - Ecology & Evolutionary Biology
Sain, Mohini - Forestry
Sakaki, Atsuko - East Asian Studies
Sakinofsky, Isaac - Public Health Sciences
Saks, Alan - Management
Salaff, Janet - Sociology
Salama, Andre - Electrical & Computer Engineering
Saleh, Walid - Religion

Salih, Sara - English
Salit, Irving - Medical Science
Sallmen, Mark - Music
Salter, Michael - Physiology
Salter, Robert - Medical Science
Samarin, William - Anthropology
Sammond, Nicholas - Cinema Studies
Sandahl, Stella - East Asian Studies
Sandbrook, Richard - Political Science
Sanders, Graham - East Asian Studies
Sanders, Todd - Anthropology
Sandler, Rivanne - Near & Middle Eastern Civilizations
Sandor, George - Dentistry
Sandwell, Ruth - Theory & Policy Studies in Education
Sanger, Annette - Music
Santerre, Paul - Dentistry
Sapp, Jan - History & Philosophy of Science & Technology
Sarabia, Rosa - Spanish
Sargent, Edward - Electrical & Computer Engineering
Sarkar, Bibudhendra - Biochemistry
Sarris, Konstantinos - Electrical & Computer Engineering
Sass-Kortsak, Andrea - Public Health Sciences
Satsuka, Shiho - Anthropology
Savard, Pierre - Physics
Saville, Bradley - Chemical Engineering & Applied Chemistry
Sawchuk, Lawrence - Anthropology
Sawchuk, Peter - Sociology & Equity Studies in Education
Sawyer, John - Management
Scardamalia, Marlene - Curriculum, Teaching & Learning
Scavizzi, Giuseppe - Art
Schachar, Russell James - Human Development & Applied Psychology
Schachter, Harry - Biochemistry
Schallert, Joseph - Slavic
Scharper, Stephen - Environment
Schatz, Edward - Political Science
Schelle, Susan - Art
Schellenberg, Glenn - Psychology
Schemitsch, Emil - Medical Science
Scherer, Stephen - Molecular Genetics
Scherk, John - Mathematics
Schillaci, Michael - Anthropology
Schimmack, Ulrich - Psychology
Schimmer, Aaron - Medical Biophysics
Schimmer, Bernard - Pharmacology & Toxicology
Schlepp, Wayne - East Asian Studies
Schlesinger, Benjamin - Social Work
Schlichter, Lyanne - Physiology
Schmid, Andre - East Asian Studies
Schmidt, Lawrence - Religion
Schmitt, Emmett - English
Schmitt-Ulms, Gerold - Laboratory Medicine & Pathobiology
Schmuckler, Mark - Psychology
Schneider, Bruce - Psychology
Schneider, Margaret - Adult Education & Counselling Psychology
Schneiderman, David - Law

Schoenbohm, Lindsay - Geology
Schofield, Jeremy - Chemistry
Scholes, Greg - Chemistry
Scholey, James - Medical Science
Schonberg, Michal - Drama
Schroeder, Bianca - Computer Science
Schugurensky, Daniel - Adult Education & Counselling Psychology
Schuh, Andre - Medical Science
Schulze, Daniel - Geology
Schwartz, Donald - Political Science
Schwartz, Robert - Public Health Sciences
Schwerdtner, Walfried - Geology
Scott, Ian - Molecular Genetics
Scott, James - Public Health Sciences
Scott, Katreena - Human Development & Applied Psychology
Scott, Steven - Geology
Seager, William Edward - Philosophy
Seaquist, Ernest - Astronomy & Astrophysics
Seco, Luis - Mathematics
Sedivy, Sonia - Philosophy
Sedra, Adel - Electrical & Computer Engineering
Seeman, Philip - Pharmacology & Toxicology
Seferos, Dwight - Chemistry
Sefton, Michael - Chemical Engineering & Applied Chemistry
Segal, Dvira - Chemistry
Segall, Jacqueline - Biochemistry
Selby, Kenneth - Civil Engineering
Selick, Paul - Mathematics
Seliger, Helfried - German
Sellen, Daniel - Anthropology
Sellers, Edward - Pharmacology & Toxicology
Seltzer, Ze'ev - Dentistry
Semlyen, Adam - Electrical & Computer Engineering
Semple, John Wesley - Pharmacology & Toxicology
Sen, Dipak - Mathematics
Senders, John - Mechanical & Industrial Engineering
Sessle, Barry - Dentistry
Seth, Arun - Laboratory Medicine & Pathobiology
Sev'er, Aysan - Sociology
Shachar, Ayelet - Political Science
Shaffer, Martha - Law
Shah, Chandrakant - Public Health Sciences
Shalaby, Amer - Civil Engineering
Shand, Patricia - Music
Shannon, Harry - Public Health Sciences
Shapiro, Ben - Social Work
Shapiro, Colin - Medical Science
Sharma, Jayeeta - History
Sharpe, James - Medical Science
Sharpe, Richard - Mathematics
Sharpe, Simon J - Biochemistry
Shaw, Brian - Public Health Sciences
Shaw, Joseph - Art
Shaw, Maria - Art
Shaw, Patricia - Laboratory Medicine & Pathobiology
Sheikh, Shamim - Civil Engineering
Sheikholeslami, Ali - Electrical & Computer Engineering
Shek, Ben-Zion - French

Shek, Pang - Laboratory Medicine & Pathobiology
Shen, Vincent Tsing-song - Philosophy
Shephard, Roy - Exercise Sciences
Shepherd, Theodore - Physics
Shera, Wes - Social Work
Sherar, Michael - Medical Biophysics
Sherk, F Arthur - Mathematics
Sherman, Philip - Medical Science
Sherwood Lollar, Barbara - Geology
Shettleworth, Sara - Psychology
Shi, Mengze - Management
Shi, Shouyong - Economics
Shin, Jumi - Chemistry
Shirley, Robert - Anthropology
Shlonsky, Aron - Social Work
Shoichet, Molly - Chemical Engineering & Applied
  Chemistry
Shojania, Kaveh - Medical Science
Short, Steven - Ecology & Evolutionary Biology
Shorter, Edward - History
Shu, Lily - Mechanical & Industrial Engineering
Shub, Michael - Mathematics
Shulman, Marc - Immunology
Shuper, Paul - Psychology
Sicheri, Frank - Molecular Genetics
Sicsic, Henri-Paul - Music
Sidhu, Sachdev - Molecular Genetics
Sidnell, Jack - Anthropology
Sidnell, Michael - English
Sieciechowicz, Krystyna - Anthropology
Siemiatycki, Matthew - Geography
Siewerdsen, Jeffrey - Medical Biophysics
Sigal, Israel Michael - Mathematics
Sigmon, Becky - Anthropology
Silano, Giulio - History
Silva, Edward - Sociology
Silver, Ivan - Medical Science
Silverberg, Mark - Medical Science
Silverman, Brian - Management
Silverman, Earl - Immunology
Silverman, Frances - Medical Science
Silverman, Melvin - Medical Science
Silvers, Ronald - Curriculum, Teaching & Learning
Silvey, Rachel - Geography
Simeon, Richard - Political Science
Siminovitch, Katherine - Immunology
Siminovitch, Louis - Molecular Genetics
Simmons, Craig - Mechanical & Industrial Engineering
Simmons, James - Geography
Simon, Roger - Sociology & Equity Studies in Education
Simpson, John - Sociology
Simpson, Myrna - Chemistry
Sinclair, Anthony - Mechanical & Industrial Engineering
Sinervo, Pekka - Physics
Singer, Peter - Medical Science
Singh, Karan - Computer Science
Single, Eric - Sociology
Sinkewicz, Robert - Medieval Studies
Siow, Aloysius - Economics
Sipe, John - Physics
Sislian, Jean - Aerospace Science & Engineering

Siu, Chi-Hung - Biochemistry
Skinner, Frances - Physiology
Skinner, Harvey - Public Health Sciences
Skogstad, Grace - Political Science
Skolnik, Michael - Theory & Policy Studies in Education
Skyrme, Raymond - Spanish
Sled, John - Medical Biophysics
Sleep, Brent - Civil Engineering
Slemon, Gordon - Electrical & Computer Engineering
Slotta, James - Curriculum, Teaching & Learning
Slutsky, Arthur - Medical Science
Smart, Michael - Economics
Smibert, Craig - Biochemistry
Smieliauskas, Waldemar - Management
Smith, Alison - History
Smith, Brian Cantwell - Information Studies
Smith, C.Tattersall - Forestry
Smith, David - Anthropology
Smith, David - French
Smith, J.J. Berry - Cell & Systems Biology
Smith, James - Chemical Engineering & Applied
  Chemistry
Smith, Kenneth - Electrical & Computer Engineering
Smith, Marilyn - Psychology
Smith, Marylou - Psychology
Smith, Peter - Electrical & Computer Engineering
Smith, Sandy - Forestry
Smith, Stuart - Mathematics
Smylie, Janet - Public Health Sciences
Smyth, Denis - History
Smyth, Elizabeth - Curriculum, Teaching & Learning
Smyth, Ronald - Linguistics
Snead III, Carter - Medical Science
Sobel, Jordan - Philosophy
Soberman, David - Management
Soberman, Richard - Civil Engineering
Sohm, Philip - Art
Sokolowski, Marla - Ecology & Evolutionary Biology
Soldovieri, Stefan - German
Sole, Michael - Physiology
Solecki, Samuel - English
Solomon, Peter - Political Science
Solomon, Susan - Political Science
Solovey, Mark - History & Philosophy of Science &
  Technology
Soman, Dilip - Management
Somigli, Luca - Italian
Sommerville, Iain - Materials Science & Engineering
Sone, Eli - Dentistry
Song, Je Sook - East Asian Studies
Sorensen, Andre - Geography
Sorenson, Ann Marie - Sociology
Sossin, Lorne - Political Science
Sousa, Elvino - Electrical & Computer Engineering
Spada, Nina - Curriculum, Teaching & Learning
Spaner, David - Medical Biophysics
Spelt, Jan - Mechanical & Industrial Engineering
Spence, Andrew - Molecular Genetics
Spence, Ian - Psychology
Spencer, Metta - Sociology
Sperdakos, Paula - Drama

Spino, Michael - Pharmaceutical Sciences
Spooner, Edward - Geology
Sproule, Beth - Pharmaceutical Sciences
Sprules, W Gary - Ecology & Evolutionary Biology
Square, Paula Ann - Speech-Language Pathology
Squire, Jeremy - Laboratory Medicine & Pathobiology
Srinivasan, Gopalan - Geology
Srinivasan, Rajalakshmi - Laboratory Medicine &
  Pathobiology
Srivastava, Muni - Statistics
Stabile, Mark - Economics
Stafford, James - Public Health Sciences
Stagg Peterson, Shelley - Curriculum, Teaching &
  Learning
Stagljar, Igor - Biochemistry
Stambolic, Vuk - Medical Biophysics
Stanford, William - Biomedical Engineering
Stangeby, Peter - Aerospace Science & Engineering
Stanisz, Greg - Medical Biophysics
Stanley, Elise - Physiology
Stanley, Sabine - Physics
Stanovich, Keith - Human Development & Applied
  Psychology
Stark, Andrew - Management
Steele, Catriona - Speech-Language Pathology
Steele, Jeffrey - French
Steele, Lisa - Art
Steeves, Craig - Aerospace Science & Engineering
Stefanovic, Ingrid - Philosophy
Stefanovic, Sasa - Ecology & Evolutionary Biology
Steffan, J. Gregory - Electrical & Computer Engineering
Stein, Janice - Political Science
Stein, Lincoln - Molecular Genetics
Steinberg, Aephraim - Physics
Steiner, Meir - Medical Science
Steinman, David - Mechanical & Industrial Engineering
Steipe, Boris - Biochemistry
Stephan, Douglas - Chemistry
Stephenson, Richard - Cell & Systems Biology
Stermac, Lana - Adult Education & Counselling
  Psychology
Stern, Susan - Social Work
Sternberg, Ricardo - Spanish
Steuart, Gerald - Civil Engineering
Stevens, Bonnie - Nursing Science
Stevens, Paul - English
Stevenson, Suzanne Ava - Computer Science
Stewart, Bryan - Cell & Systems Biology
Stewart, Donna - Medical Science
Stewart, Duncan - Medical Science
Stewart, Hamish - Law
Stiegelbauer, Suzanne - Theory & Policy Studies in
  Education
Stock, Brian - English
Stock, Markus - German
Strafella, Antonio - Medical Science
Strange, William - Management
Strauss, Bradley - Laboratory Medicine & Pathobiology
Streiner, David - Medical Science
Stren, Richard - Political Science
Strike, Carol - Public Health Sciences

Strong, Kimberly - Physics
Strother, Stephen - Medical Biophysics
Stukel, Therese - Health Policy, Management &
  Evaluation
Stumm, Michael - Electrical & Computer Engineering
Stuss, Donald - Psychology
Subtelny, Maria - Near & Middle Eastern Civilizations
Sugita, Shuzo - Physiology
Sulem, Catherine - Mathematics
Sullivan, Edmund - Adult Education & Counselling
  Psychology
Sullivan, Philip - Aerospace Science & Engineering
Sullivan, Pierre - Mechanical & Industrial Engineering
Sullivan, Rosemary - English
Sumner, L Wayne - Philosophy
Sun, Lei - Public Health Sciences
Sun, Yu - Mechanical & Industrial Engineering
Swain, Merrill - Curriculum, Teaching & Learning
Swallow, Carol - Medical Science
Sweetman, Robert - Medieval Studies
Sweezey, Neil - Medical Science
Swenson, Edward - Anthropology
Sykes, Heather - Curriculum, Teaching & Learning
Syme, Alison - Art
Szegedy, Balazs - Mathematics

T

Tackett, Jennifer - Psychology
Taddio, Anna - Pharmaceutical Sciences
Tafarodi, Romin - Psychology
Tagliamonte, Sali - Linguistics
Tailor, Chetankumar - Molecular Genetics
Takehara, Kaori - Psychology
Tall, Franklin - Mathematics
Tambe, Ashwini - Women & Gender Studies
Tanner, Julian - Sociology
Tannock, Rosemary - Human Development & Applied
  Psychology
Tanny, Stephen - Mathematics
Tanswell, Alan - Medical Science
Tarasuk, Valerie - Nutritional Sciences
Tarlo, Susan - Medical Science
Tarnawsky, Maxim - Slavic
Tate, Joseph - Electrical & Computer Engineering
Tator, Charles - Medical Science
Tavakoli-Targhi, Mohamad - Near & Middle Eastern
  Civilizations
Taylor, Glen - Religion
Taylor, Ian - Medical Science
Taylor, Judith - Sociology
Taylor, Margot - Medical Science
Taylor, Mark - Chemistry
Taylor, Michael - Laboratory Medicine & Pathobiology
Taylor, Robert - French
Tcheuyap, Alexie - French
Teichman, Judith Ann - Political Science
Templeton, Douglas - Laboratory Medicine &
  Pathobiology
Ten Kortenaar, Neil - Comparative Literature
Tenenbaum, Howard - Dentistry
Tenenbaum, Sergio - Philosophy

Tennyson, Roderick - Aerospace Science & Engineering
Tepass, Ulrich - Cell & Systems Biology
Tepperman, Lorne - Sociology
Terebiznik, Mauricio - Cell & Systems Biology
Terpstra, Nicholas - History
Teuscher, Richard - Physics
Thiessen, Dennis - Curriculum, Teaching & Learning
Thomas, Scott - Exercise Sciences
Thomas, Sean - Forestry
Thompson, Christopher - Theoretical Astrophysics
Thompson, Evan - Philosophy
Thompson, Lilian - Nutritional Sciences
Thompson, Margaret - Molecular Genetics
Thompson, Michael - Chemistry
Thompson, Paul - History & Philosophy of Science & Technology
Thomson, H. Leslie - English
Thomson, James - Ecology & Evolutionary Biology
Thomson, Murray - Mechanical & Industrial Engineering
Thomson, Roger - Slavic
Thorner, Paul - Laboratory Medicine & Pathobiology
Thorpe, Steven - Materials Science & Engineering
Thywissen, Joseph - Physics
Tidwell, Thomas - Chemistry
Tierney, Mary - Medical Science
Till, James - Medical Biophysics
Tillier, Elizabeth - Medical Biophysics
Timmer, Victor - Forestry
Timusk, John - Civil Engineering
Titchkosky, Tanya - Sociology & Equity Studies in Education
Titley, Keith - Dentistry
To, Teresa - Public Health Sciences
Tobe, Stephen - Cell & Systems Biology
Tod, Joanne - Art
Todd, Barbara - History
Todorcevic, Stevo - Mathematics
Tolton, Cameron - French
Tombak, Mihkel - Management
Tomczak, Kim - Art
Tomkins, Denise - Pharmacology & Toxicology
Tomlinson, George - Health Policy, Management & Evaluation
Toner, Brenda - Medical Science
Toueg, Sam - Computer Science
Tourangeau, Ann - Nursing Science
Townsend, David Robert - Medieval Studies
Trachtenberg, John - Medical Science
Traill, John - Classics
Tran, Honghi - Chemical Engineering & Applied Chemistry
Tran, Nhung - History
Trass, Olev - Chemical Engineering & Applied Chemistry
Traub, Ross - Curriculum, Teaching & Learning
Trebilcock, Michael - Law
Trefler, Daniel - Management
Trehub, Sandra - Psychology
Tremblay, Luc - Exercise Sciences
Trescases, Olivier - Electrical & Computer Engineering
Trifonas, Peter - Curriculum, Teaching & Learning
Trimble, William - Biochemistry

Trischuk, William - Physics
Tritchler, David - Medical Biophysics
Trocme, Nicolas - Social Work
Trojanowska, Tamara - Slavic
Trope, Graham - Medical Science
Tropepe, Vince - Cell & Systems Biology
Troper, Harold - Theory & Policy Studies in Education
Trotz, Alissa - Sociology & Equity Studies in Education
Truong, Khai Nhut - Computer Science
Truong, Kien (Kevin) - Electrical & Computer Engineering
Tsang, Ka Tat - Social Work
Tsao, Ming-Sound - Laboratory Medicine & Pathobiology
Tsui, Florence - Immunology
Tsukimura, Reiko - East Asian Studies
Tu, Jack Ven - Health Policy, Management & Evaluation
Tulving, Endel - Psychology
Tuohy, Carolyn - Political Science
Turksen, Ismail - Mechanical & Industrial Engineering
Turner, David - Anthropology
Turner, Matthew - Economics
Tweed, Douglas - Physiology
Tyers, Michael - Molecular Genetics
Tymianski, Michael - Medical Science
Tymianski, Michael - Physiology
Tyndale, Rachel - Pharmacology & Toxicology

U

Uetrecht, Jack - Pharmaceutical Sciences
Ungar, Sheldon - Sociology
Upshur, Ross Edward - Medical Science
Urbach, David - Medical Science
Urowitz, Murray - Medical Science
Urquhart, Alasdair - Philosophy
Utigard, Torstein - Materials Science & Engineering

V

Vaage, Leif - Religion
Vaccarino, Franco - Psychology
Vachon, Mary - Public Health Sciences
Valaee, Shahrokh - Electrical & Computer Engineering
Valcke, Catherine - Law
Valdes, Mario - Comparative Literature
Valverde, Mariana - Criminology
Van De Vegte, John - Mechanical & Industrial Engineering
Van Der Kooy, Derek - Molecular Genetics
van der Kwast, Theodorus - Laboratory Medicine & Pathobiology
Van Driel, Henry - Physics
van Ginkel, Blanche - Architecture, Landscape, & Design
van Kerkwijk, Marten - Astronomy & Astrophysics
Van Kirk, Sylvia - History
van Lieshout, Pascal - Speech-Language Pathology
Vanderburg, Willem - Civil Engineering
Vanderburgh, Rosamond - Anthropology
Vanlerberghe, Greg - Cell & Systems Biology
Varmuza, Susannah - Cell & Systems Biology
Vartanian, Oshin - Psychology
Vayda, Eugene - Health Policy, Management & Evaluation
Vecchio, Frank - Civil Engineering

Veneris, Andreas - Electrical & Computer Engineering
Venetsanopoulos, Anastasios - Electrical & Computer Engineering
Venter, Ronald - Mechanical & Industrial Engineering
Verhoeff, Nicolaas - Medical Science
Verma, Anil - Management
Verma, Subodh - Medical Science
Verrier, Mary (Molly) - Physical Therapy
Vertin, Joseph Michael - Religion
Veugelers, Jack - Sociology
Vicari, E Patricia - English
Vicedo Castello, Maria - History & Philosophy of Science & Technology
Vicente, Joaquim Jose - Mechanical & Industrial Engineering
Vieth, Reinhold - Laboratory Medicine & Pathobiology
Viola, Lynne - History
Vipond, Robert - Political Science
Virag, Balint - Statistics
Visser, Colin - English
Vitkin, Alex - Medical Biophysics
Voinigescu, Sorin - Electrical & Computer Engineering
Volchuk, Allen - Biochemistry
Volpe, Richard - Human Development & Applied Psychology
Von Bitter, Peter - Geology
Vranesic, Zvonko - Electrical & Computer Engineering
Vranic, Mladen - Physiology
Vuksan, Vladimir - Nutritional Sciences

W
Waddams, Stephen - Law
Waddell, Thomas - Medical Science
Wagle, Narendra - History
Wagner, Helene - Ecology & Evolutionary Biology
Wahlstrom, Merlin - Curriculum, Teaching & Learning
Wakefield, Sarah - Geography
Walcott, Rinaldo - Sociology & Equity Studies in Education
Wald, Robert - Medical Science
Walfish, Paul - Medical Science
Walker, Gilbert - Chemistry
Walker, John - French
Walker, Kaley - Physics
Walker, Michael - Physics
Walker, Scott - Pharmaceutical Sciences
Walks, Alan - Geography
Wallace, James - Mechanical & Industrial Engineering
Wallace, John - Curriculum, Teaching & Learning
Wallis, Faith - History & Philosophy of Science & Technology
Walsh, Denis - Philosophy
Walter, Cameron - Music
Wane, Njoki - Sociology & Equity Studies in Education
Wang, Chen - Laboratory Medicine & Pathobiology
Wang, Lu-Yang - Physiology
Wang, Paul - Biomedical Engineering
Wang, Qing (Kevin) - Management
Wang, Qinghua - Physiology
Wang, Zhirui - Materials Science & Engineering
Wania, Frank - Chemistry

Ward, Charles - Mechanical & Industrial Engineering
Ward, Wendy - Nutritional Sciences
Warde, Padraig - Medical Science
Wardlow, Holly - Anthropology
Wark, Wesley - History
Warkentin, Germaine - English
Warley, Christopher - English
Warner, Jessica - History & Philosophy of Science & Technology
Warsh, Jerry - Medical Science
Wasylenki, Donald - Health Policy, Management & Evaluation
Waterhouse, David - East Asian Studies
Watkins, Melville - Political Science
Watson, Andrew - Economics
Watson, Jeanne - Adult Education & Counselling Psychology
Watson, Philip - Dentistry
Watts, Tania - Immunology
Watt-Watson, Judith - Nursing Science
Wayne, Michael - History
Webster, Jill - Spanish
Wei, Jason - Management
Wei, John - Physics
Weinrib, Ernest - Law
Weinrib, Lorraine - Law
Weis, Arthur - Ecology & Evolutionary Biology
Weisel, Richard - Medical Science
Weisman, Karen - English
Weiss, William - Mathematics
Weksberg, Rosanna - Medical Science
Welch Jr., Kenneth Collins - Cell & Systems Biology
Wellman, Barry - Sociology
Wells, James - Pharmaceutical Sciences
Wells, Lilian - Social Work
Wells, Mathew - Geography
Wells, Peter - Pharmaceutical Sciences
Wells, Richard - Medical Biophysics
Welsh, Sandy - Sociology
Welsh, Timothy - Exercise Sciences
Wensley, Anthony - Management
West, Gordon - Physics
West, Lori - Medical Science
Westall, Carol - Medical Science
Westgate, John - Geology
Westwood, J. Timothy - Cell & Systems Biology
Wetzel, Heinz - German
Wheaton, Blair - Sociology
Wheeler, Aaron - Chemistry
Wheeler, Michael - Physiology
Whelan, William - Medical Biophysics
White, Alan - Management
White, Daniel - English
White, Graham - Political Science
White, Linda - Political Science
White, Rodney - Geography
Whiteside, Catharine Isobel - Medical Science
Whiting, Jennifer - Philosophy
Whitmore, Gordon - Medical Biophysics
Whitney, Joseph - Geography
Whittington, Stuart - Chemistry

Whyte, Glen - Management
Wicks, Frederick - Geology
Wiener, Judith - Human Development & Applied
  Psychology
Wiitasalo, Shirley - Art
Wilde, Andrew Rhys - Molecular Genetics
Wiley, Mike - Medical Science
Will, George - Civil Engineering
Willan, Andrew - Public Health Sciences
Williams, Charmaine - Social Work
Williams, D Dudley - Ecology & Evolutionary Biology
Williams, David - Biochemistry
Williams, Derek - History
Williams, George - Biochemistry
Williams, Melissa - Political Science
Williams, Paul - Health Policy, Management & Evaluation
Williamson, Nancy - Information Studies
Williamson, Robert Shane - Architecture, Landscape, &
  Design
Willows, Dale - Human Development & Applied
  Psychology
Wilson, Alan - Medical Science
Wilson, Brian - Medical Biophysics
Wilson, David - Curriculum, Teaching & Learning
Wilson, David - History
Wilson, Gregory - Laboratory Medicine & Pathobiology
Wilson, Jessica Marie - Philosophy
Wilson, Kathleen - Geography
Wilson, Thomas - Economics
Winklbauer, Rudolf - Cell & Systems Biology
Winnik, Mitchell - Chemistry
Winocur, Gordon - Psychology
Winsor, Mary - History & Philosophy of Science &
  Technology
Winter, Frederick - Art
Winterbottom, Richard - Ecology & Evolutionary Biology
Wiseman, Nelson - Political Science
Wither, Joan - Immunology
Wittmann, Rebecca - History
Wittnich, Carin - Medical Science
Wodak, Shoshana - Biochemistry
Wodchis, Walter - Health Policy, Management &
  Evaluation
Wohl, Victoria - Classics
Wojtowicz, J. Martin - Physiology
Wolever, Thomas - Nutritional Sciences
Wolfe, David - Political Science
Wolfe, Richard - Human Development & Applied
  Psychology
Wollesen, Jens - Art
Wong, Albert - Pharmacology & Toxicology
Wong, Chong Shun - Medical Biophysics
Wong, Joseph - Political Science
Wong, Lydia - Music
Wong, Ming F Agnes - Medical Science
Wong, Moon Hung (Franco) - Management
Wong, Pui-Yuen - Laboratory Medicine & Pathobiology
Wong, Samuel - Physics
Wong, Willy - Electrical & Computer Engineering
Wonham, Walter - Electrical & Computer Engineering
Woo, Minna Nancy - Medical Science

Wood, Michael - Medical Biophysics
Woodgett, James - Medical Biophysics
Woodin, Melanie - Cell & Systems Biology
Woodland, Malcolm - English
Woodruff, Earl - Human Development & Applied
  Psychology
Woodside, Blake - Medical Science
Woodside, Donald - Dentistry
Wooldridge, Terence - French
Woolley, G Andrew - Chemistry
Wortley, N. Scot - Criminology
Wortman, David - Computer Science
Wortmann, Ulrich - Geology
Wouters, Bradly - Medical Biophysics
Wrana, Jeff - Molecular Genetics
Wright, Graham - Medical Biophysics
Wright, James - Medical Science
Wright, Robert - Architecture, Landscape, & Design
Wright, Stephen - Ecology & Evolutionary Biology
Wrobel, Piotr Jan - History
Wu, Gillian - Immunology
Wu, Xiao Yu - Pharmaceutical Sciences
Wu, Yanqin - Astronomy & Astrophysics
Wunder, Jay - Medical Science

X
Xia, Kaiwen - Civil Engineering
Xie, Jia Lin - Management

Y
Yaffe, Martin - Medical Biophysics
Yampolsky, Michael - Mathematics
Yan, Ning - Forestry
Yang, Burton - Laboratory Medicine & Pathobiology
Yang, Guojun - Cell & Systems Biology
Yao, Alice - Anthropology
Yao, Fang - Statistics
Yatchew, Adonis - Economics
Yau, Terrence - Medical Science
Yeang, Chen-Pang - History & Philosophy of Science &
  Technology
Yee, Albert - Medical Science
Yee, Howard - Astronomy & Astrophysics
Yeger, Herman - Laboratory Medicine & Pathobiology
Yeo, Erik - Medical Science
Yeomans, John - Psychology
Yeung, Rae - Medical Science
Yi, Byeong-Uk - Philosophy
Yip, Christopher - Chemical Engineering & Applied
  Chemistry
Yoon, Albert - Law
Yoshida, Karen - Physical Therapy
Yoshioka, Keiko - Cell & Systems Biology
You, Lidan - Mechanical & Industrial Engineering
Young, Kue - Public Health Sciences
Young, Lionel Trevor - Health Policy, Management &
  Evaluation
Young, R. Paul - Civil Engineering
Yousef, George - Laboratory Medicine & Pathobiology
Youson, John - Cell & Systems Biology
Yu, Eric - Information Studies

Yu, Wei - Electrical & Computer Engineering
Yucel, Yeni - Laboratory Medicine & Pathobiology
Yudin, Andrei - Chemistry

Z
Zacksenhaus, Eldad - Medical Biophysics
Zakzanis, Konstantine - Psychology
Zamble, Deborah - Chemistry
Zandstra, Peter - Biomedical Engineering
Zarb, George - Dentistry
Zeitlin, Irving - Sociology
Zelazo, Philip - Psychology
Zeller, Suzanne - History & Philosophy of Science &
  Technology
Zemel, Richard - Computer Science
Zhang, Haibo - Medical Science
Zhang, Li - Laboratory Medicine & Pathobiology
Zhang, Liang - Medical Science
Zhang, Ping - Management
Zhang, Xiaoan - Chemistry
Zhang, Zhaolei - Molecular Genetics
Zhao, Rongmin - Cell & Systems Biology
Zhen, Mei - Molecular Genetics
Zheng, Gang - Medical Biophysics
Zhu, Jianwen - Electrical & Computer Engineering
Zhu, Xiaodong - Economics
Zhuo, Min - Physiology
Zielenska, Maria - Laboratory Medicine & Pathobiology
Zilcosky, John - German
Zimmerman, Ann - Ecology & Evolutionary Biology
Zingg, David - Aerospace Science & Engineering
Zipursky, Robert - Medical Science
Zlotkin, Stanley - Nutritional Sciences
Zu, Jean - Mechanical & Industrial Engineering
Zuker, Marvin - Theory & Policy Studies in Education
Zukotynski, Stefan - Electrical & Computer Engineering
Zuniga-Pflucker, Juan Carlos - Immunology
Zwarenstein, Merrick - Health Policy, Management &
  Evaluation

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 and diploma programs by graduate unit
2. Collaborative programs
3. Joint programs

SGS comprises over 80 graduate units, approximately 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 and Diploma Programs by Graduate Unit

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

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, PhD

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, PhD
6. Dynamics of Global Change
   - Adult Education and Community Development, PhD
7. Environmental Studies
   - Adult Education and Community Development, MA, MEd, PhD
   - Counselling Psychology, MA, MEd, EdD, PhD
8. Sexual Diversity Studies
   - Counselling Psychology, MA, MEd, EdD, PhD
9. **Women and Gender Studies**
   - Adult Education and Community Development, MA, MEd, PhD
   - Counselling Psychology, MA, MEd, EdD, PhD
10. 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 and Adult Learning
4. Community, International, and Transformative 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 and Educational Settings (MEd, EdD)
3. Guidance and Counselling (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.
- 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.

Normal Program Length – 6 sessions (full-time); 10 sessions (part-time)

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 the course AEC 1100H *Outline of Adult Education* as well as one research methods course.

Normal Program Length – 5 sessions (full-time); 10 sessions (part-time)

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.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

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
AEC 1107H Developing and Leading High Performing Teams: Theory and Practice
AEC 1108H Adult Learning (Credit/No Credit)
AEC 1110H Basic Processes in Teaching Adults
AEC 1113H Gender and Hierarchy at Work
AEC 1114H Comparative and International Perspectives in Adult Education
AEC 1117H Consulting Skills for Adult Educators
AEC 1119H Creating a Learning Organization
AEC 1122H Practicum in Adult Education and Community Development (Credit/No Credit)
AEC 1131H Special Topics in Adult Education (Master's)
AEC 1132H Special Topics in Women in Development and Community Transformation (Master's Level)
AEC 1135H Practicum in Organization Development (Credit/No Credit)
AEC 1141H Organizations and the Adult Educator: Historical and Theoretical Perspectives on Organization Development
AEC 1143H Introduction to Feminist Perspectives on Society and Education
AEC 1145H Participatory Research in the Community and the Workplace
AEC 1146H Women, War, and Learning
AEC 1148H An Introduction to Workplace, Organizational, and Economic Democracy
AEC 1150H Critical Perspectives on Organizational Theory, Development and Practice
AEC 1152H Individual Reading and Research in Adult Education: Master's Level
AEC 1156H Power and Difference in the Workplace
AEC 1160H Introduction to Transformative Learning Studies
AEC 1170H Practitioners' Experienced Knowledge
AEC 1171H Treaty Rights and Aboriginal Education: Contemporary Policies and Programs
AEC 1173H Creativity and Wellness: Learning to Thrive
AEC 1178H Practitioner/Ecological Identity and Reflexive Inquiry
AEC 1180H Aboriginal World Views: Implications for Education
AEC 1181H Embodied Learning and Qi Gong
AEC 1182H Teaching, Learning and Working in Non-profit and Public Sector Organizations
AEC 1183H[+] Master's Thesis Seminar (Credit/No Credit)
AEC 1184H Aboriginal Knowledge: Implications for Education
AEC 1185H Leadership in Organizations: Changing Perspectives

AEC 1186H Perspectives On Organizational Change
AEC 1187H Alternative Ways of Researching Aging, Illness and Health
AEC 1188H Understanding Research Traditions
AEC 1189H Workplace Literacies: Theory, Policy and Practice
AEC 1190H Community Healing and Peacebuilding
AEC 3102H[+] Doctoral Thesis Seminar (Credit/No Credit)
AEC 3103H Teaching about Global and Social Issues
AEC 3104H Political Economy of Adult Education in Global Perspectives
AEC 3113H Adult Education and Public Policy
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 3131H Special Topics in Adult Education (Doctoral)
AEC 3132H Special Topics in Women in Development and Community Transformation
AEC 3133H Special Topics in Aboriginal Community Learning: Current Issues and Practices
AEC 3138H Social Theories and Adult Education
AEC 3140H Post-Colonial Relations and Transformative Education
AEC 3152H Individual Reading and Research in Adult Education: Doctoral Level
AEC 3153H Individual Reading and Research in Women in Development and Community Transformation: Doctoral Level
AEC 3170H Perspectives on Qualitative Research: Part I
AEC 3171H Perspectives on Qualitative Research: Part II
AEC 3173H Effecting Change: Creating Wellness
AEC 3176H Sense of Place in Professional and Natural Contexts
AEC 3177H Arts-InforMEd Perspectives in Educational Research
AEC 3179H Work, Technology and the Knowledge Economy
AEC 3180H Global Governance and Educational Change: the Politics of International Cooperation in Education
AEC 3181H Feminist Standpoints: Critical and Post-Structural Approaches
AEC 3182H Citizenship Learning and Participatory Democracy
AEC 3183H Mapping Social and Organizational Relations in Adult Education
CIE 1001H Introduction to Comparative, International and Development Education
CIE 1002H Practicum in Comparative, International and Development Education
WPL 1131H Workplace Learning and Social Change – Master's

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

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 1407H Narrative as a Vehicle for Personal Change
AEC 1408H Working with Survivors of Trauma
AEC 1409H Creative Empowerment Work with the Disenfranchised
SES 1925H Indigenous Knowledge and Decolonization: Pedagogical Implications
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 leads to 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.

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

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 option: 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. Under this option, it is expected that all degree requirements will be completed within two years.
- Part-time option: For this option, students can register as part-time students at the beginning of their program. However, they will be required to register as full-time students for one year of the program. In this option, students will normally take 1.0 FCE annually during the beginning of their program and 1.5 FCE taken in each of the Fall and Winter sessions in their year of full-time study. Under this option, it is expected that all degree requirements will be completed within two to three years, up to a maximum of five years.

Normal Program Length – 6 sessions (full-time); 9 sessions (part-time)

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.

The Counselling Psychology 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. The Counselling Program is accredited by the Canadian Psychological Association in professional psychology.

Minimum Admission Requirements
Full-time PhD
The PhD in Counselling Psychology requires the following:
- 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- or better in the final year.

- A University of Toronto MA degree with specialization in Counselling Psychology for Psychology Specialists with a grade of A- or better, or its equivalent.

Flexible-time PhD

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 should demonstrate that they are active professionals engaged in activities relevant to their proposed program of study. See the OISE Bulletin for further information.

Program Requirements
- The PhD program requires a minimum of 5.0 full-course equivalents (FCE), including practicum AEC 3217Y and internship AEC 3268Y. See below for details.
- 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.

Normal Program Length – 5 years (full-time PhD); 6 years (flexible-time PhD)

Field: Counselling Psychology for Community and Educational 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.

Normal Program Length – 5 sessions (full-time); 10 sessions (part-time)

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.

Normal Program Length – 5 years (full-time)

Field: Guidance and Counselling

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.

Normal Program Length – 5 sessions (full-time); 10 sessions (part-time)

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 1207H   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)

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

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 3258H   Special Topics in Counselling Psychology
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
CTL 1602H   Introduction to Computers in Education
HDP 1223H   Depression in the Schools: Assessment,
            Prevention, and Intervention
HDP 1287H   Introduction to Applied Statistics
HDP 1288H   Intermediate Statistics and Research
            Design
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, MEd, EdD
Gillis, Joseph - BSc, MA, PhD
Guttman, Mary Alice - BEd, MSc, PhD
Jackson, Nancy - BA, MA, PhD *(Associate Chair)*
Knowles, J Gary - MS, EdD

Laiken, Marilyn - BA, MA, PhD
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
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 *(Chair & Graduate Chair)*

Members Emeriti

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

Associate Members

Akingbola, Olakunle - BSc, MIR, MA, PhD
Akman, Donna - PhD
Archer, Anne - DIPP
Armstrong, Ann - MBA, PhD
Bernstein, Lori - BA, MA, MPH, PhD
Blanchard, Ray - MA, PhD
Bodnar, Ana - DBA
Church, Kathryn - PhD
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 Studies

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Aerospace Science and Engineering –

   MASc, MEng, PhD

Overview
   The University of Toronto Institute for Aerospace Studies (UTIAS) offers graduate programs leading to research intensive **Maser of Applied Science** and **Doctor of Philosophy** degrees and a professionally oriented **Master of Engineering** 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

University of Toronto Institute for Aerospace Studies
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.

Normal Program Length – 3 sessions (full-time); 8 sessions (part-time)

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'.

Normal Program Length – 5 sessions (full-time)

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:
  - Ascertain the suitability of the student for advanced research,
  - Assess the thesis topic,
  - 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
  - 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.

Normal Program Length – 4 years (full-time PhD)

Course List

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

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 1308H   Introduction to Modern Flow Control
AER 1310H   Turbulence Modelling
AER 1311H   Unsteady Gasdynamics
AER 1316H   Fundamentals of Computa¬tional 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 0507H   Introduction to Fusion Energy
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)

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, PhD
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, PhD
Gulder, Omer - BSc, MSc, PhD
Haasz, Anthony - BASc, MASc, PhD
Hansen, Jorn - BASc, MASc, PhD
Lavoie, Philippe - BSE, 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
Zingg, David - BASc, MASc, PhD *(Director)*

Members Emeriti
de Leeuw, Jacob - MS, PhD
DeLaurier, James - BS, MS, PhD, Fell Cdn Aero & Space Inst
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. Diaspora and Transnational Studies
   • Anthropology, MA, MSc, PhD
6. Dynamics of Global Change
   • Anthropology, PhD
7. Environmental Studies
   • Anthropology, MA, MSc, PhD
8. Ethnic and Pluralism Studies
   • Anthropology, MA, MSc, PhD
9. Global Health
   • Anthropology, PhD
10. International Relations
   • Anthropology, MA
11. Jewish Studies
   • Anthropology, MA, PhD
12. Sexual Diversity Studies
   • Anthropology, MA, MSc, PhD
13. South Asian Studies
   • Anthropology, MA, PhD
14. Women and Gender Studies
   • Anthropology, MA, PhD
15. 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 **Master of Science** degree program is normally taken in three fields: archaeology, biological anthropology, and medical anthropology.

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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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).

Program Requirements
- 5.0 full-course equivalents (FCE), which must include ANT 1000H and ANT 2500Y. Of the remaining 3.5 FCE, 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.

Normal Program Length – 6 sessions (full-time); 9 sessions (part-time)

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 enrolment, have completed a master's degree in anthropology (or a cognate subject).
- All applicants are expected to have achieved grades averaging the equivalent of a University of Toronto A- or better in their last full year of study. Most successful applicants will have finished or be in the process of completing an MA or MSc.
- Applicants must satisfy the Department that they have the appropriate background to enter a particular program of graduate study.
- Two letters of reference.
- A brief statement of interest (not exceeding 1,000 words).
- Applicants are 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:
  - be resident on campus for one year.
  - complete a minimum of 3.0 FCE, at least 1.5 FCE of which are normally in anthropology.
  - gain experience in research methods and design; requirement can be filled by completing course work in methodology or, with the department's assent, undertaking faculty-supervised fieldwork or laboratory research. Each student will normally be involved in fieldwork, in the broad meaning of the term, and in theoretical analysis.
  - present and defend a thesis proposal.
  - demonstrate an adequate knowledge of at least one language other than English, unless their program of study requires the intensive and time-consuming mastery of another research tool. Demonstration of adequate language or equivalent knowledge can be accomplished in a variety of ways, a list of which is available in the Department of Anthropology's Graduate Student Handbook.
- 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 proposal by the end of the third session of the second year (e.g., August 31 for students who start in September).

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).

Normal Program Length – 4 years (post-master's PhD); 5 years (direct-entry PhD)

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Course List

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

General

ANT 1000H Anthropology: Theoretical Paradigms and Case Studies (Credit/No Credit)
ANT 1099H Quantitative Methods II
ANT 1155H,Y[+] Research (or reading seminar)
ANT 1156H,Y[+] Research (or reading seminar)
ANT 1157H,Y[+] Research (or reading seminar)
ANT 1158H,Y[+] Research (or reading seminar)
ANT 2000Y[o] MA Research Paper
ANT 2500Y[o] 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 Archaeo¬logy
ANT 4020H Archaeology Theory
ANT 4022H Culture Resource Management
ANT 4025H Archaeology of Eastern North America
ANT 4026H Arctic Archaeology
ANT 4028H Violence and Civilization
ANT 4030H Artifacts
ANT 4029H Lithic Technology
ANT 4030H Artifacts
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 Interregional 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 Ethnohistoric 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 3011H Palaeopathology
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 Anthro¬pology: 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 Mass Mediation
ANT 6015H Global Health: Anthropological Perspectives
ANT 6016H Medicine and Globalization
ANT 6017H Post-colonial Science Studies and the Cultural Politics of Knowledge Translation
ANT 6018H Theories of Nature and Society
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

[o] 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.

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 6032H   Advanced Research Seminar II
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

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
Dei, George JS - BA, MA, PhD
DuTour, Olivier - MD, 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
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
Parra, Esteban - BSc, MS, PhD
Pfeiffer, Susan - AB, AM, PhD
Rogers, Tracy - AB, MPA, DPhil
Sanders, Todd - AB, AM, MSc, PhD
Satsuka, Shiho - 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
Yao, Alice - 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
Samarin, William - BA, PhD
Shirley, Robert - BA, MA, PhD
Vanderburgh, Rosamond - BA, MA

Associate Members
Dave, Prakruti - BA, MA, PhD
Dewar, Genevieve - BS, MA, PhD
Forni, Silvia - BA, MA, PhD
Gibbs, Alison - BS, MS, PhD
Gilbert, Andrew - PhD
Harrison, Timothy - BA, MA, PhD
Jackson, Jennifer - BA, MPH, PhD
Jennings, Justin - PhD
Klassen, Pamela - BA, MA, PhD
Knappett, Carl - MA, PhD
Mittermaier, Amira - MA, PhD
Mortensen, Lena - AB, PhD
Parga, Joyce - BSc, MA, PhD
Paz, Alejandro - BA, MPA, MA
Schwarcz, Henry P. - AB, MSc, PhD
Shen, Chen - BA, PhD
Simich, Laura - PhD
Sung, Wen Ching - MA, MS, PhD
Williamson, Ronald - BA, MA, PhD
Zubrow, Ezra - BA, MA

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.

2.5-year program – Second Year Advanced Standing Option in MArch
- 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.

1.5-year program – Post-Professional Advanced Standing Option in MArch
- 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:
  - 15.0 FCE in core courses
    - 4.0 FCE design studios
    - 2.0 FCE option design studios
    - 0.5 FCE thesis preparation and research course
    - 1.5 FCE design thesis
    - 1.0 FCE visual communications courses
    - 1.0 FCE history theory courses
    - 0.5 FCE computer modelling course
    - 3.5 FCE technics and planning courses
    - 1.0 FCE professional practice course
  - 2.5 FCE in electives of which 1.0 FCE must be in the History and Theory stream
- The time limit to complete degree requirements is 6 years.

Normal Program Length – 10 sessions (full-time)

2.5-year program – Second Year Advanced Standing Option
- Students must take a total of 12.5 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
- The maximum time limit to complete degree requirements is 5 years.

Normal Program Length – 7 sessions (full-time)

1.5-year program – Post-Professional Advanced Standing Option
- Students must take a total of 7.5 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 maximum time limit to complete degree requirements is 4 years.

Normal Program Length – 4 sessions (full-time)

Course List
Consult the department regarding course availability.

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
ARC 2039H   Architecture Theory
ARC 3031H   Analysis of Architectural Form
ARC 3033H   Selected Topics in Architectural History and
                    Theory
ARC 3034H   Selected Architects
ARC 3035H   Selected Topics in Urban Design
ARC 3036H   Current Art in Its Urban Context

ARC 3038H   Global Architecture: History and Theory
ARC 3039H   Independent Study and Research in
                    Architecture

Technics and Planning
ARC 3041H   Selected Topics in Architecture,
                    Technology, Ecology
ARC 3042H   Sustainable Architecture

Professional Practice
ARC 4053H   Topics in Professional Practice

Landscape Architecture

Master of Landscape Architecture

Minimum Admission Requirements

3-year program
- Four-year bachelor's degree (BA, BSc, BASc, BES,
  BFA, BCom) with a minimum average of mid-B
  and demonstrated leadership potential in the field.
  Preference is given to applicants who have complet-
  ed a balanced undergraduate education that includes
  study in the arts, sciences, and humanities.
- Recommended:
  o   undergraduate courses in biology/ecology, geog-
       raphy, English, and history.
  o   preparation in the visual arts, such as drawing,
       sculpture, graphics, photography, film, or new
       media, as well as in computing and advanced
       writing.

**2-year program – Second Year Advanced Standing
Option in MLA**
- Four-year or five-year bachelor's degree in architec-
  ture, 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 com-
  mittee. 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 commu-
  nications or representation, two courses in architec-
  tural history and theory (one in twentieth-century),
  and two courses in architectural technology and/or
  ecology.

**1-year program – Post-Professional Advanced
Standing Option in MLA**
- 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
  - 1.5 FCE in electives of which it is recommended that 1.0 FCE be taken in other academic divisions of the University.
- The maximum time limit to complete degree requirements is 6 years.

Normal program length: 6 sessions (full-time)

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
    - 2.0 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
    - 0.5 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
- The maximum time limit to complete degree requirements is 5 years.

Normal program length: 4 sessions (full-time)

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 maximum time limit to complete degree requirements is 4 years.

Normal program length: 2 sessions (full-time)

Course List
Consult the department regarding course availability.

Core Courses

Design
LAN 1011Y   Design Studio 1
LAN 1012Y   Design Studio 2
LAN 2013Y   Design Studio 3
LAN 2014Y   Design Studio 4
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
Consult the deparment regarding course availability.

Core Courses

Design
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 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.

History, Theory, Criticism
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
Danahy, John - BLA, MRP
El-Khoury, Rodolphe - BFA, BArch, BArch, MArch, MA,
 PhD
Kesik, Ted - BASc, MASc, DPhil
Levit, Robert - BA, MArch
Liu, An Te - BA, MArch
Lobsinger, Mary Lou - BArch, BES, BA, MES, PhD
Williamson, Robert Shane - BSc, MArch
Wright, Robert - BSc, MLA
Sommer, Richard – BFA, BArch, MArch *(Dean)*

Members Emeriti
Richards, Larry - BArch, MArch
van Ginkel, Blanche - BArch, MCP

Associate Members
Bessai, Tom - BArch, AB, MArch
Blackwell, Adrian - BArch, BES, MArch UD
Chaouni, Aziza - BScCE, MArch
Fong, Steven - BArch, MArch
Lieberman, David - DiplingARCH, BFA
Marcopoulos, Christos - BArch
Margolis, Liat - MLA
Moukheiber, Carol Leila - BArch, BA
North, Alissa - BLA, MLA
North, Peter - BLA, MLA
Payne, Andrew - BA, MA, PhD
Petricone, Pina - MArch
Sampson, Barry - BArch
Shelley, Elise - BSc, MArch, MLA
Shim, Brigitte - BES, BAR
Shnier, John - BArch, BES
White, Mason - BArch, MArch
Wolff, Jane - AB, MLA

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
Sidney Smith Hall
Room 6037A, 100 St. George Street
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); course work must be chosen from at least three of four areas: Ancient, Medieval, Renaissance/Baroque, Modern. 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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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. 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 Director of Graduate Studies, and additional languages may be required depending on the research needs of the student's dissertation topic. Language requirements must be completed prior to 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 a three-part comprehensive examination, the first part focusing on one of the four areas, the second on the dissertation field, and the third (oral) discussing the first two. 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 Director of Graduate Studies 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 Director of Graduate Studies.

Normal Program Length – 6 years (post-master's PhD); 7 years (direct-entry PhD)

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   Medieval Pilgrimage Art and Architecture
FAH 1121H   Twelfth-Century Renaissance?
FAH 1123H   The Art of the Medieval Book
FAH 1124H   Byzantine Church Decoration
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 1142H   Multicultural Middle Ages
FAH 1171H   Beginning of Modernism: From Images to Pictures
FAH 1200H   Crusader Art

Renaissance and Baroque
FAH 1221H   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: Architecture and the Arts 1460-1540
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 1293H   Architecture of the English Renaissance and Baroque

Modern
FAH 1410H   Artwriting, Past and Present
FAH 1420H   Theories of the Sublime in Art
FAH 1455H   The Paris Salon, 1784-1900
FAH 1464H   The Recalcitrant Icon
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 1490H   Art and Intersubjectivity
FAH 1492H   Retreating the Aesthetic
FAH 1493H   Queer Sexuality, Visuality & Theory
FAH 1494H   The Archive: Logics, Limits, Remains
FAH 1752H   The Circulation of Architectural Knowledge
FAH 1800H   James Wilson Morrice
FAH 1801H   Portraiture in Canada, 1760-1860: Painting into Photography
FAH 1870H   Recent Canadian Art in International Perspective
FAH 1901H   Tom Thomson
FAH 1910H   Contemporary Art of South Asia and Its Diaspora
FAH 1920H   Primitivism to Globalism: Theories of Otherness in Modern and Contemporary Arts
FAH 1921H   GeoAesthetics: Nature, Landscape and the Earth in Recent Art and Theory
FAH 1923H   Modernist Exiles in Postcolonial Perspective
FAH 1930H   Issues in the History of Contemporary Art after 1960
FAH 1931H   Contemporary Art: Theory and Criticism
FAH 1932H   Paradigmatic Exhibitions: History, Theory, Criticism
FAH 1933H   Canadian Artists: Michael Snow
FAH 1970H   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,Y 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
FAH 3012H   Readings in Medieval Art
FAH 3013H   Readings in Renaissance and Baroque Art
FAH 3014H   Readings in Modern and Contemporary Art

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 in studio or curatorial 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.
- 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.
- Applicants to the MVS Curatorial Studies program must present a sample of curatorial or critical writing (published or unpublished), exhibition brochures, announcement cards and/or catalogues from curatorial work.

- 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 begins in September.
- MVS Studio and Curatorial Studies: 4.5 full-course equivalents (FCE) from list below in MVS and 1.5 FCE in outside electives.
- MVS Studio students are supervised by an Advisory Panel made up of the Graduate Coordinator 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 Curatorial Studies students are supervised by an Advisory Panel made up of a member of the graduate faculty who will be considered to be the student's Principal Advisor, the Graduate Coordinator of the MVS program or their designate and one of the University of Toronto's curators or outside curator as appropriate.
- MVS Proseminar, a non-credit course that normally meets bi-weekly.

Normal Program Length: 6 sessions (full-time)

MVS Studio Courses
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
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 2002H	MVS Contemporary Art Issues
VIS 2101Y	MVS Curatorial Studies Exhibition Research
VIS 2102H	MVS Curatorial Research

Graduate Faculty

Full Members
Anderson, Christy - BA, MA, PhD
Caskey, Jill - AB, MA, MPH, PhD
Cheetham, Mark - BPhil, MA, PhD
Cohen, Adam - PhD
Ewald, Bjorn - AM, PhD
Gu, Yi - BLitt, MMSt
Harney, Elizabeth - AB, MA, PhD
Hawken, George
Jain, Kajri - PhD
Kaplan, Louis - AB, AM, DPhil
Katsougiannopoulou, Christina - PhD
Kavaler, Ethan Matt - PhD
Knappett, Carl - MA, PhD *(Director of Graduate Studies & Associate Chair)*
Legge, Elizabeth Mm - BA, BA, MA, PhD *(Chair & Graduate Chair)*
Levy, Evonne - MFA, PhD
Lloyd, Sue - BA
Massey, John
Purtle, Jennifer - BLitt
Reid, Dennis - BA, MA
Ricco, John - BA, MA, PhD
Schelle, Susan
Sohm, Philip - BA, MA, PhD
Steele, Lisa
Syme, Alison - PhD
Tod, Joanne
Tomczak, Kim
Wiitasalo, Shirley
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
MacDonald, Ann - BA

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. Astrophysics
   • 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) and the Dunlap Institute for Astronomy and Astrophysics (DIAA), which further enhance the opportunities for our students to interact with leading researchers.

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

The Herschel Space Observatory and Planck have just been launched and soon will feature the James Webb Space Telescope, ALMA, and the Thirty Metre Telescope. We have an active experimental program using telescopes on long-duration strato-spheric balloons and a complementary program designing and building instrumentation for large optical telescopes, for cosmological and Galactic research. We presently enjoy access to the Dupont 2.5-m telescope at Las Campanas under an instrumentation development collaboration with the Carnegie Observatories.

There are approximately 100 faculty, post-doctoral fellows, graduate students, and staff in the Department of Astronomy and Astrophysics, CITA, and DIAA. 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

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

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.

Normal Program Length – 5 sessions (full-time)

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 Graduate Record Examination administered by the Educational Testing Service, Princeton

Program Requirements

- 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.

Normal Program Length – 4 years (full-time PhD)

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Course List

Preparatory Courses
AST 1410H   Stars
AST 1420H   Galactic Structure and Dynamics
AST 1430H   Cosmology
AST 1440H   Radiation Processes and Gas Dynamics

Research Courses
AST 1500Y+ Directed Research
AST 1501Y   Introduction to Research
AST 400*Y+ Research (*Students register each year, beginning in the second year, in sequence of the last digit: 2, 3, etc.)

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, DPhil, PhD *(Associate Chair, Graduate)*
Artymowicz, Pawel - MS, PhD
Bond, J Richard - BSc, MS, PhD, Fell Royal Society Canada
Carlberg, Raymond - BSc, MS, PhD
Dyer, Charles - BS, MSc, PhD
Jayawardhana, Ray - BS, PhD
Lester, John - BA, MS, PhD

Lowman, Julian - BSc, MS, DPhil
Martin, Peter - BSc, MSc, PhD
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
Pfeiffer, Harald - PhD
Stanley, Sabine - BSc, PhD
Thompson, Christopher - BSc, PhD
van Kerkwijk, Marten - MA, PhD
Wu, Yanqin - PhD
Yee, Howard - BASc, PhD *(Chair & Graduate Chair)*

Members Emeriti
Bolton, Charles - BS, MS, PhD
Clement, Christine - BSc, MA, PhD
Clement, Maurice - BSc, MSc, PhD
Fernie, John - BSc, MSc, PhD, Fell Ryl Astronom Society
Garrison, Robert - BA, PhD
Percy, John - BSc, MA, PhD
Seaquist, Ernest - BASc, MA, PhD

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

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, MSc, 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 **Master of Science** and **Doctor of Philosophy** 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: carol.gordon@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 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.
  - 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.

Normal Program Length – 6 sessions (full-time)

° Courses which may continue over a program. The course is graded when completed.

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 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.
  - Internet-based TOEFL: minimum 93/120 score and 22/30 on the writing and speaking sections.
  - In the absence of TOEFL results, a MELAB score of at least 92 is also acceptable.
- 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry 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

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 2010: Structure, Function and Biosynthesis of Membrane Transporter, Channels, and Receptors.
Spring 2011: Protein Quality Control and Trafficking within the Secretory Pathway.
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
Attisano, 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
Chakrabartty, Avijit - BSc, MSc, PhD
Chan, Hue Sun - BSc, MA, PhD
Clarke, David - PhD

Davidson, Alan Richard - BSc, PhD
Deber, Charles - BSc, PhD
Forman-Kay, Julie - BSc, PhD
Glover, John - BSc, MSc, PhD
Grinstein, Sergio - BSc, PhD
Houry, Walid - 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
Rubinstein, John L - 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, Fell Royal Society Canada

Biomedical Engineering

Faculty Affiliation
Applied Science and Engineering

Degree Programs Offered
Biomedical Engineering - MASc, PhD
Clinical 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 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 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.

Normal Program Length -- 5 sessions (full-time)

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.

Normal Program Length - 4 years (full-time PhD); 5 years (direct-entry PhD)

Clinical Engineering

Master of Health Science

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 BME 1450H 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.
- All degree requirements must be completed within three years.

Normal Program Length - 6 sessions (full-time)

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
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   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
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
Bogoch, Earl - BA, MSc, MD
Boynton, Erin - MD
Brock, Kristy - PhD
Cafazzo, Joseph - DPhil
Caldarone, Christopher - BSc, MD
Chan, Warren - BSc, PhD
Chau, Tom - PhD
Cheng, Yu-Ling - SB, PhD
Courtman, David - BSc, MSc, PhD
Davies, John - BSc, BDSc, PhD, DSc
Easty, Anthony - PhD
Eizenman, Moshe - BASc, MASc, PhD
Ethier, C Ross - BSc, MMath, SM, PhD
Fernie, Geoffrey - BSc, PhD
Frecker, Richard - BSc, MD, PhD
Ginsberg, Howard - BSc, LRCP, MD, PhD
Goldenberg, Andrei - BSc, MSc, PhD
Graham, Simon - BSc, PhD
Grynpas, Marc - MSc, PhD
Guenther, Axel - DipIng, DE
Harrison, Robert - PhD, DSc
Hinz, J. Boris - PhD
Hynynen, Kullervo - BSc, MS, PhD
Jaffray, David - BSc, PhD
Johnston, K. Wayne - MD
Joy, Michael - BSc, MASc, PhD
Kandel, Rita - MD
Keating, Armand - BSc, MD
Levi, Ofer - PhD
Mahadevan, Radhakrishnan - BTech, PhD
Mandelis, Andreas - BSc, MA, MSc, PhD
McGuigan, Alison - MEng, PhD
Milgram, Paul - BASc, MSc, PhD
Morshead, Cindi Marie - BS, PhD
Norwich, Kenneth - MSc, PhD
Popovic, Milos - DipIng, PhD
Pritzker, Kenneth - BSc, MD
Radisic, Milica - BEng, PhD
Reid, Denise - BSc(OT), MEd, PhD
Rocheleau, Jonathan - BSc, PhD
Santerre, Paul - BSc, MSc, PhD *(Director)*
Sefton, Michael - BASc, ScD
Shoichet, Molly - PhD
 Siewerdsen, Jeffrey - BA, MS, PhD
Silverman, Melvin - BSc, MDCH
Simmons, Craig - BSc, MSc, PhD
Skinner, Frances - PhD
Sled, John - BASc, MS, PhD
Slutsky, Arthur - BASc, MASc, MD
Stanford, William - BA, PhD
Strauss, Bradley - MD
Sun, Yu - BS, MS, MS, PhD

Thorpe, Steven - BASc, MASc, PhD
Truong, Kien (Kevin) - BASc, PhD
Wang, Paul - BSc, PhD
Wong, Willy - BSc, MSc, PhD
Wright, Graham - BSc, MSc, PhD
Yee, Albert - MSc, LMCC, MD
Yip, Christopher - BSc, PhD *(Associate Director & Graduate Coordinator)*
You, Lidan - BS, MS, PhD
Zandstra, Peter - BEng, PhD
Zheng, Gang - 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

Biddiss, Elaine Alisa - MASc, PhD
Borschel, Gregory - BSc, DrMed
Gemmell, Cynthia - PhD
Grantcharov, Teodor - DrMed, PhD
Howarth, David - LMCC, MD
Islam, Mohammad - PhD
Kilkenny Rocheleau, Dawn - PhD
Michaels, Howard - PhD
Nagai, Mary - PhD
Sodhi, Rana - BSc, MSc, PhD
Steele, Catriona - BA, MHSc, PhD
Steinman, David - BASc, MASc, PhD
Whyne, Cari - BSc, PhD
Woodhouse, Kimberly Ann - 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, MSc, 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
• 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.

Normal Program Length – 6 sessions (full-time)

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.
• 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.

Normal Program Length – 4 years (post-master's PhD); 5 years (direct entry or transfer-from-master's PhD)

Course List

Consult graduate unit regarding course availability.

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[o] MSc Seminar Series
CSB 1011Y[o] PhD Seminar Series
JBZ 1472H Computational Genomics and Bioinformatics

Graduate Faculty

Full Members

Aarts, Michelle Marie - BS, MS, PhD
AbouHaidar, Mounir - DipdESup, BSc, PhD, Cert D'aptitude Pedagog
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, 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
Ensminger, Ingo - PhD
Espie, George - PhD
Fitzpatrick, Mark - BS, MS, 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
Harris, Tony - BSc, 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
Mitchell, Jennifer - DSc
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
Smith, J.J. Berry - BA, MA, PhD
Sokolowski, Marla - PhD
Stephenson, Richard - BSc, PhD
Stewart, Bryan - BSc, MS, DPhil
Stinchcombe, John - BA, PhD
Tepass, Ulrich - MSc, PhD *(Chair and Graduate Chair)*
Terebiznik, Mauricio - BSc, PhD
Tobe, Stephen - BSc, MSc, PhD, Fell Royal Society Canada
Tropepe, Vince - BSc, PhD
Vanlerberghe, Greg - BSc, MSc, PhD
Varmuza, Susannah - BSc, MSc, PhD
Welch Jr., Kenneth Collins - BS, MA, PhD
Westwood, J. Timothy - PhD
Winklbauer, Rudolf - MSc, PhD
Woodin, Melanie - MSc, PhD
Yang, Guojun - PhD
Yeomans, John - BA, PhD
Yoshioka, Keiko - PhD
Zhao, Rongmin - BSc, PhD

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.
oCourses 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. Chemical and Materials Process Engineering
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/
Email:
Admissions: admissgrad.chemeng@utoronto.ca
General: gradassist.chemeng@utoronto.ca
Telephone: (416) 976-3987
Fax: (416) 978-8605

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 half courses (1.5 full course equivalents (FCE)), 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 and JDE 1000H as well as attend four sessions of the CHE 300xH seminar series. Students are required to take a graduate student seminar – presenting two times during their program, once in the first year and once in the second year of study.
- Each student 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).

Normal Program Length – 6 sessions (full-time)

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.
- 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.

Normal Program Length – 3 sessions (full-time); 9-12 sessions (part-time)

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 8 sessions of the seminar

– attending CHE 300xH series and, if not already completed, CHE 2222H and JDE 1000H. Students are required to take a graduate student seminar – attending 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.

Normal Program Length – 4 years; 5 years (direct-entry or transfer from master's PhD)

Course List

An updated course list and 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.

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
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 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
JTC 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 568H 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 300xH 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. These courses require prior approval from the graduate coordinator.

Graduate Faculty

Full Members
Allen, D Grant - BASc, MASc, PhD
Bender, Timothy - 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
Diosady, Levente - BASc, MASc, PhD
Edwards, Elizabeth - BEng, PhD

Evans, Gregory - PhD
Farnood, Ramin - BASc, MASc, PhD
Jia, Charles - BEng, MEng, PhD
Kawaji, Masahiro - BASc, MSc, PhD
Kirk, Donald - BASc, MASc, PhD
Kortschot, Mark - BASc, MASc, PhD
Lawryshyn, Yuri - DipIng, BASc, MASc, PhD
McGuigan, Alison - MEng, PhD
Mims, Charles - PhD
Newman, Roger Charles - BA, PhD, DSc
Papangelakis, Vladimiros - MEng, PhD *(Associate Chair)*
Radisic, Milica - BEng, PhD
Reeve, Douglas - BSc, MASc, PhD *(Chair & Graduate Chair)*
Saville, Bradley - BSc, PhD
Sefton, Michael - BASc, ScD
Shoichet, Molly - PhD
Stanford, William - BA, PhD
Thomson, Murray - BSc, PhD
Tran, Honghi - PhD
Yan, Ning - BSc, PhD, Reg Professional Engineer
Yip, Christopher - BSc, PhD

Members Emeriti
Balke, Stephen - BEng, PhD
Boocock, David - BSc, PhD
Chaffey, Charles - BSc, PhD
Charles, Michael - BSc, MSc, PhD, Fell Chem Inst of Canada
Foulkes, Frank - BASc, MASc, PhD
James, David - BSc, MS, MA, PhD
Jervis, Robert - BA, MA, PhD, Reg Professional Engineer, Fell Chem Inst of Canada
Luus, 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
Mckague, Bruce - BSc, PhD
Oshinowo, Olatokunboh - BASc, MASc, PhD

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
3. **Biomedical Engineering**
   - Chemistry, MSc, PhD
4. **Optics**
   - Chemistry, MSc

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.

Normal Program Length – 4 sessions over two years (full-time)

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 Physical Chemistry and Chemical Physics
  o Polymers and Materials Chemistry
  o Interdisciplinary
  Combinations within these fields, or with other disciplines, are permitted under the category of an interdisciplinary program. Each program requires a minimum of 2.0 to 3.0 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 fulfil the PhD requirements. Specific requirements for each field follow:

Analytical Chemistry
- 3.0 FCE to include 0.5 FCE in analytical chemistry in each of the areas of spectroscopy, separation science/electrochemistry, and advanced instrumentation/data analysis, plus one other 0.5 FCE to support the research program. Students must also complete CHM 1190Y *Analytical Chemistry Seminar*.

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.

Physical Chemistry and Chemical Physics
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.

Normal Program Length – 4 years (full-time PhD); 5 years (transfer from master's or direct-entry)

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 1410H 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 1590Y Environmental Chemistry Seminar (Credit/No Credit)
CHM 2534H Research in Environmental Chemistry
ENV 1410H Analytical Environmental Chemistry

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 1255H Supramolecular 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 1009H Current Topics in Chemical Biology
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 1304H Organic Materials Chemistry
CHM 1310H Polymer Chemistry
CHM 1390Y Polymer and Materials Chemistry Seminar (Credit/No Credit)
CHM 2304H Research in Polymer and Materials Chemistry

All graduate courses for degree credit must be approved by the Department. Subject to departmental permission, degree students in Chemistry may take a limited number of graduate courses based on fourth-year Faculty of Arts and Science courses in Chemistry or a cognate discipline. Approvals of such fourth-year courses will be considered on an individual basis. Third-year Arts and Science courses, or their essential equivalents, will not receive degree credit.

Graduate Faculty

Full Members
Abbatt, Jonathan - BSc, PhD
Allen, Christine - BSc, PhD, PhD
Batey, Robert Alexander - BA, PhD
Brumer, Paul - BSc, PhD
Chan, Warren - 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
Manners, Ian - BSc, PhD
McMillen, David - BSc, MS, PhD
Miller, R J Dwayne - BSc, PhD
Morris, Robert - BSc, PhD, Fell North Atlantic Treaty Or
  (Interim Chair & Intern Graduate Chair)
Murphy, Jennifer - BCH, DChem
Nitz, Mark - BSc, PhD
Ozin, Geoffrey - BSc, PhD
Polanyi, John - MSc, PhD, DSc, Fell Royal Society
  Canada, Fell Royal Society London
Powell, John - BSc, PhD
Prosser, Scott - BSc, MSc, DPhil
Schofield, Jeremy - PhD, PhD
Scholes, Greg - MSc, PhD
Seferos, Dwight - BCH, DChem
Segal, Dvira - BSc, DSc
Shin, Jumi - AB, DPhil
Shoichet, Molly - PhD
Simpson, Myrna - BS, DPhil
Song, Datong - BSc, PhD
Stephan, Douglas - BSc, PhD
Taylor, Mark - BSc, DSc
Thompson, Michael - BSc, PhD, DSc, Fell Ryl Inst
  Chemistry
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
Zhang, Xiaoan - MS, 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, Fell Royal Society Canada
McLean, Stewart - BSc, PhD
Menzinger, Michael - MS, PhD
Poe, Anthony - DIC, BA, BSc, MA, MA, PhD
Tidwell, Thomas - BS, AM, PhD

Associate Members
Bidleman, Terry - BSc, PhD
Muir, Derek - BSc, MSc, PhD
Reiner, Eric - BSc, MSc, PhD
Tanner, Scott - BSc, PhD

Cinema Studies

Faculty Affiliation
Arts and Science

Degree Programs Offered
Cinema Studies – MA

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. **Diaspora and Transnational Studies**
   - Cinema Studies, MA
2. **Sexual Diversity Studies**
   - Cinema Studies, MA
3. **Women and Gender Studies**
   - 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.

Normal Program Length – 3 sessions (full-time)

Course List
Not all elective courses are offered every year. The Department should be consulted each session as to elective and non-CIN course offerings.

Core Courses
CIN 1000H   Historiography of the Cinema
CIN 1001H   Theories of the Cinema
CIN 1002H   Cinema and Culture

Plus one of:
CIN 1006Y   Major Research Paper in Cinema Studies
CIN 1007Y   Internship in Cinema Studies

Elective Courses (subject to change)
CIN 1003H   Women's Cinema and Women's Film
                   Festivals
CIN 1004H   Models of Film Analysis
CIN 1005H   Special Studies in Cinema
CIN 1008H   Independent Research and Reading in
                   Cinema Studies
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
Armatage, Kay - BA, MA, PhD *(Acting Director)*
Columpar, Corinn - BA, PhD *(Coordinator of Graduate Studies)*
Fenner, Angelica - BA, MA, PhD
Keil, Charles - BA, MA, PhD *(Director)*
King, Robert - AB, MA, PhD
Sammond, Nicholas - BA, MA, PhD

Associate Members
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
Email: morley@utoronto.ca
Telephone: (416) 946-8028
Fax: (416) 978-6813

Program
Web: www.civil.engineering.utoronto.ca
Fax: (416) 978-6813

MEng Inquiries
Email: shayni@civ.utoronto.ca
Telephone: (416) 978-5905

MASc/PhD Inquiries
E-mail: colin@civ.utoronto.ca
Telephone: (416) 978-0945

Department of Civil Engineering
University of Toronto
Galbraith Building
35 St. George Street
Toronto, Ontario M5S 1A4
Canada

Degree Programs

Civil Engineering

Master of Applied Science

Minimum Admission Requirements
- Students are accepted under the general regulations.
- Students who do not possess an undergraduate degree in civil engineering, may be required to take more than the usual time and number of courses.

Program Requirements
- Each student, in consultation with a staff member at the beginning of the program, will establish the distribution of time between course work and thesis or design project.
- Normally a minimum of 2.5 FCE (five half-courses) and include a thesis. Some sections may require 3.0 FCE (six half-courses) and include a thesis. Please consult the supervisor and/or refer to the departmental graduate student handbook for further details.

Normal Program Length – 5 sessions (full-time)

Master of Engineering

Minimum Admission Requirements
- Students are accepted under the general regulations.
- Students who do not possess an undergraduate degree in civil engineering, may be required to take more than the usual time and number of courses.

Program Requirements
- Each student, in consultation with a staff member at the beginning of the program, will establish the distribution of time between course work and thesis or design project.
- Normally 5.0 FCE (ten half-courses) for the course work only program. Up to two courses may be replaced by a research/design project.
- There is no formal residence requirement for MEng students; therefore, the program may be completed through part-time studies.

Normal Program Length –3 sessions (full-time); 5 sessions (part-time)

Doctor of Philosophy

Minimum Admission Requirements
- Satisfy the Department of the ability to undertake advanced research.
- Students are accepted under the following departmental regulations, in addition to the SGS general and degree regulations for the PhD.

- Admission directly from a bachelor's degree is not normally permitted.
- If a student transfers from a master's degree program to a PhD program, courses taken during the master's program may be applied to the PhD program.

Program Requirements
- 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.

Normal Program Length – 4 years (full-time PhD)

Course List
Not all courses are given every year. Some courses may require a prerequisite. Please consult the Department.

General Interest
CIV 1001H   M.Eng. Project I
CIV 1002Y   M.Eng. Project II
CIV 1099H   Special Studies in Civil Engineering
CIV 1307H   Evaluating the Sustainability of Engineering Activities
CIV 1310H   Infrastructure Economics
CIV 1337H   Simulation in Civil Engineering

CIV 1504H   Applied Probability and Statistics for Civil Engineering
CIV 1539H   Evaluation of Civil Engineering Systems
CIV 1600H   Readings in Technology and Modern Society I
CIV 1601H   Readings in Technology and Modern Society II

Building Engineering
CIV 514H   Concrete Technology
CIV 575H   Building Science
CIV 1201H   Concrete Technology and Non-Destructive Testing Principles
CIV 1250H   Instrumentation Techniques in Concrete Technology
CIV 1252H   Repair and Maintenance of Concrete Structures
CIV 1277H   Construction Estimating and Finance
CIV 1278H   Pre-Project Planning and Constructability Analysis
CIV 1279H   Construction Contract Documents
CIV 1280H   Building Envelope Design
CIV 1281H   Management of Building Projects
CIV 1282H   Case Studies in Building Science
CIV 1283H   Civil Informatics
CIV 1299H   Special Studies in Civil Engineering

Environmental Engineering
CIV 540H   Treatment Processes
CIV 549H   Groundwater Flow and Contamination
CIV 550H   Water Resources Engineering
CIV 1303H   Water Resources Systems Modelling
CIV 1305H   Water Resources Systems Analysis
CIV 1308H   Physical and Chemical Treatment Processes
CIV 1309H   Biological Treatment Processes
CIV 1319H   Chemistry and Analysis of Water and Wastes
CIV 1335H   Advanced Hydrogeology
CIV 1399H   Special Studies in Civil Engineering

Geoscience
CIV 523H   Geotechnical Design
CIV 529H   Rock Engineering
CIV 1404H   Material Fracture Dynamics: Experimental Methods
CIV1410H   Satellite Positioning and Remote Sensing
CIV 1419H   Rock Dynamics
CIV 1420H   Soil Properties and Behaviour
CIV 1421H   Continuum Mechanics of Fluids and Solids
CIV 1446H   Slopes and Earthworks
CIV 1499H   Special Studies in Civil Engineering

Structural Engineering
CIV 510H   Solid Mechanics II
CIV 513H   Collaborative Engineering and Architectural Design Studio
CIV 517H   Prestressed Concrete Structures
CIV 518H   Behaviour and Design of Steel Structures
CIV 519H   Structural Analysis II
CIV 1163H   Mechanics of Reinforced Concrete

CIV 1164H   Bridge Engineering
CIV 1169H   Advanced Topics in Building Design
CIV 1167H   Structural Dynamics and Earthquake Engineering
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, Constantin - BE, MASc, PhD
Collins, Michael - BE, PhD
Crawford, Adrian - BE, MASc, PhD
El-Diraby, Tamer - PhD
Gauvreau, Douglas Paul - BSc, MSc, PhD, Reg Professional Engineer
Grabinsky, Murray - BASc, MASc, PhD
Grasselli, Giovanni - PhD
Hadjigeorgiou, Ioannis (John) - DIPLGEOL, BASc, ME, DPhil
Hofmann, Ronald - BEng, MASc, PhD, Reg Professional Engineer
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, Reg Professional Engineer *(Chair & Graduate Chair)*
Miller, Eric - BASc, MASc, PhD
Packer, Jeffrey - BE, MSc, DSc, PhD
Panesar, Daman - BE, ME, PhD
Pressnail, Kim - BASc, PhD
Roorda, Matthew - BEng, MASc, PhD
Shalaby, Amer - BSc, MASc, PhD

Sheikh, Shamim - BSE, MASc, PhD, *(Associate Chair, Academic)*
Sleep, Brent - BSc, MASc, PhD
Vanderburg, Willem - BASc, MASc, PhD
Vecchio, Frank - BASc, MEng, PhD
Xia, Kaiwen - BASc, MS, PhD
Young, R. Paul - BSc, MSc, PhD, Chartered Engineer

Members Emeriti
Birkemoe, Peter - BS, MSc, PhD
Ganczarczyk, Jerzy - MSc, DSc, DRHAB
Hauer, Ezra - BSc, MSc, PhD
Hurdle, Vanolin - BS, MEng, PhD
Mohanty, Bibhuti - BSc, MA, MTech, PhD
Selby, Kenneth - BASc, MBA, PhD
Soberman, Richard - BSc, SM, PhD
Steuart, Gerald - BSc, MSc, PhD
Timusk, John - BASc, MASc, PhD
Will, George - BASc, MASc

Associate Members
Fotopoulos, Georgia - BSc, MSc, PhD, Reg Professional Engineer
Seica, Michael - DipIng, 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. **Book History and Print Culture**
   - Classics, MA, PhD
4. **Editing Medieval Texts**
   - Classics, PhD
5. **Sexual Diversity Studies**
   - Classics, MA, PhD
6. **Women and Gender Studies**
   - Classics, MA, PhD
7. **Jewish 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 or a related field with a B+ average in the final year and the equivalent of at least three and preferably four full years of training in either Greek or Latin and two full years of training in the other.
- 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:
- Completion of the Greek and Latin Qualifying Examinations (3-hour translation exam in each language, including both prose and poetry) with a grade of at least B-.
- Completion of GRK 1000H and LAT 1000H (intensive advanced language skills) or equivalent, with a grade of at least B-.
- Completion of Sight Translation Exams with a grade of at least B-.
- Graduate Research Paper: Each student is assigned to a faculty advisor for CLA 2000H, the Graduate Research Paper, and works independently on the preparation of a research paper (about 8000 words in length). The Graduate Research Paper 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 – Completion of GRK 1000H and LAT 1000H and a selection of other courses approved by the Department, with a grade of at least B-. Students may be exempted from either 1000H course if they have satisfactorily completed comparable work in their undergraduate program (with a B+ or above). 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 - 2.5 FCE (five half-courses) from the 1300- and 1800-series of courses chosen in consultation with the graduate coordinator.
- Completion of the Qualifying Examinations and Sight Translation Examinations with a grade of at least B-.
- Completion of the Graduate Research Paper with a grade of at least B.

One-year Master of Arts
- 2.5 FCE (five half-courses) from the 1300- and 1800-series of courses chosen in consultation with the graduate coordinator.
- Students may be required to complete GRK 1000H and/or LAT 1000H (with a minimum grade of B-) to help them prepare for the Qualifying Examinations.
- Completion of the Qualifying Examinations and Sight Translation Examinations with a grade of at least B-.
- Completion of the Graduate Research Paper with a grade of at least B.

Normal Program Length – 3 sessions (1-year MA); 6 sessions (2-year MA)

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 or a related field (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 Graduate Research Paper. Applicants must have reading knowledge of one of the modern languages required for the PhD.

Program Requirements
The following program requirements apply to all doctoral students, whether admitted under standard conditions or with advanced standing:

- Satisfactory completion of required courses (GRK 1000H, LAT 1000H, and CLA 3000H). At the Department's discretion, students who require additional preparation for the Qualifying Examinations 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.
- Satisfactory completion of Graduate Research Paper (CLA 2000H) with a grade of at least A-. Doctoral students who complete the Graduate Research Paper at a lower standard which nevertheless satisfies the MA requirement will be granted the MA. Students admitted with advanced standing are exempt from the Graduate Research Paper.
- Completion of Qualifying Examinations with at least B+ in both languages, or equivalent, by September of the third year of the PhD. PhD students must pass all components of these examinations with grades of at least B+. Doctoral students who complete the Qualifying Examinations 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 the examinations. Students admitted with advanced standing are exempt from the Qualifying Examinations.
- Satisfactory completion of Sight Translation Examinations in both languages by the third year of the PhD.
- Demonstration of adequate reading knowledge of two languages of research other than English, one of which will normally be German, by the third year of the PhD program.
- Eleven seminars, including at least six research seminars, of which two must be outside the student's area of concentration. Student must maintain at least an A- average in seminars.
- 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

° Courses which may continue over a program. The course is graded when completed.

examined by means of two written examinations, one of which must involve translation from the list of primary sources, and an oral examination covering the research essay and the examination papers. The major field examination should be completed by the middle of 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).

Normal Program Length – 4 years (students admitted with advanced standing); 5 years (students admitted under standard conditions, including direct-entry)

Course List

Not all courses are offered every year. Please consult the Department for course offerings.

GRK 1000H   Advanced Studies in Greek Language (Credit/No Credit)
GRK 1800H   Special Topics in Greek Literature
GRK 1801H   Special Topics in Greek History
GRK 1802H   Readings in Greek Epic
GRK 1803H   Readings in Greek Verse
GRK 1804H   Readings in Greek Tragedy
GRK 1805H   Readings in Greek Comedy
GRK 1806H   Readings in the Greek Historians
GRK1807H   Readings in the Greek Philosophers
GRK 1808H   Readings in the Greek Orators
GRK 1809H   Archaic Greek Literature and Culture
GRK 1810H   Classical Greek Literature and Culture
GRK1811H   Hellenistic Literature and Culture
GRK 2500Y°   Greek Qualifying Exam
GRK 2505Y°   Greek Sight Exam
LAT 1000H   Advanced Studies in Latin Language (Credit/No Credit)
LAT 1800H   Special Topics in Latin Literature
LAT 1801H   Special Topics in Roman History
LAT 1802H   Readings in Latin Epic
LAT 1803H   Readings in Latin Verse
LAT 1804H   Readings in Roman Drama
LAT 1805H   Readings in Roman Satire and Novel
LAT 1806H   Readings in the Roman Historians
LAT 1807H   Readings in the Roman Philosophers
LAT 1808H   Readings in the Roman Orators
LAT 1809H   Readings in Roman Republican Literature and Culture
LAT 1810H   Readings in Roman Imperial Literature and Culture
LAT 2500Y°   Latin Qualifying Exam
LAT 2505Y°   Latin Sight Exam
CLA 1800H   Special Topics in Classical Literature
CLA 1801H   Special Topics in Ancient History

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
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 1303H   Studies in Classical Antiquity
CLA 1304H   Studies in Classical Greek
CLA 1305H   Studies in Classical Latin

° Courses which may continue over a program. The course is graded when completed.

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, Elaine - BA, MA, PhD
Gunderson, Erik - BA, MA, PhD
Inwood, Brad - BA, MA, PhD, Fell Royal Society Canada
Jones, Alexander - BA, PhD, Fell Royal Society Canada
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, Fell Royal Society Canada
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

Associate Members

Akrigg, Benjamin - BA, PhD
Balot, Ryan - BA, AM, PhD
Bendlin, Andreas - PhD
Blouin, Katherine - BA, MA, PhD, PhD
Cottier, Michel - BA, DPhil
Edmondson, Jonathan - PhD
Ewald, Bjorn - AM, PhD
Hoeschele, Regina - MA, PhD
Kloppenborg, John - BA, MA, PhD
Knappett, Carl - MA, PhD
Lytle, Thomas - BA, PhD
Marshall, John - BA, MA, PhD
Najman, Hindy - AB, MA, PhD
Nakassis, Dimitri - BA, MA, PhD
Orwin, Clifford - AB, AM, PhD
Townsend, David Robert - BA, MA, PhD
Weinrib, Ernest - BA, LLB, PhD
Welsh, Jarrett - BA, MA, PhD

Comparative Literature

Faculty Affiliation
Arts and Science

Degree Programs
Comparative Literature – MA, PhD

Overview
The Centre for Comparative Literature offers **Master of Arts** and **Doctor of Philosophy** degree programs to students qualified to pursue literary studies involving several languages. Students pursue research across languages and national literatures, and theoretical issues that cross traditional disciplines.

Applicants interested in graduate study at the Centre should consult the Centre's Web site www.complit. utoronto.ca/. It provides updated information about requirements, graduate programs, course offerings, and academic profiles of graduate faculty.

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 January 15.

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.complit.utoronto.ca/
E-mail: banguyen@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 4.0 full-course equivalents (FCE) including at least 2.0 FCE in COL courses, among 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.
- 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

° Courses which may continue over a program. The course is graded when completed.

the Centre, courses may also be selected from departments of language and literature, as well as from other units in the humanities.

- Average of at least B+ in course work.
- 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.

Normal Program Length – 3 sessions (one year full-time); 6 sessions (two-year program)

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.
- Submit preliminary statement of purpose.

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 2.5 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 more courses, up to 8.0 FCE. 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. For this last requirement, it is possible to substitute competency in a non-literary discipline. The Centre reserves the right to determine whether a student has met this requirement. Typically, it will be two graduate half-courses. Certification of graduate level competence and reading knowledge in languages is given to all students who qualify.
- 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.

Normal Program Length – 4-5 years (full-time PhD)

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
COL 5019H   Cervantes and Renaissance Humanism
COL 5021H   The Body in Medieval Literature
COL 5033H   Visual Portraitures in Contemporary Autobiographical Narrative
COL 5037H   Magic Prague: Questions of Literary Cityscapes

COL 5043H Cultural Icons: From Aleksandr Pushkin to Che Guevara
COL 5044H A Journey from Petersburg to Los Angeles
COL 5053H Modern Textual Imagination
COL 5062H Prague School Semiotics of Drama, Theatre and Cinema in Contemporary Context
COL 5066H Literature, Machine and Empire
COL 5068H Traditions and Innovations of Epic Theatre from an Intercultural and Feminist Perspective
COL 5070H Neo-primitivism in Contemporary Discourses
COL 5071H Psychoanalysis, "Race," and Culture
COL 5072H Affinities: Readings of Realism and Radicalism
COL 5073H Chinese Literature in the Modern World
COL 5083Y Redefining Security through Art
COL 5086H Literature, Culture and Contact in Medieval Iberia
COL 5088H Brecht and Greek Tragedy
COL 5090H Global Visual Culture
COL 5092H Lacan 1
COL 5093H Lacan 2
JFC 1255H Aspects of Structuralism

Graduate Faculty

Full Members

Ambros, Veronika - MA, PhD
Bai, Ruoyun - BA, MA, PhD
Bender, Daniel Eric - BA, PhD
Budde, Antje - PhD
Cazdyn, Eric - BA, MA, PhD
Comay, Rebecca - BA, MA, PhD
Esonwanne, Uzoma - BA, MA, PhD
Havercroft, Barbara - BA, MA, PhD
Jagoe, Eva-Lynn - BA, MA, PhD
Kleber, Pia - BA, MA, PhD
Komaromi, Ann - MA, DPhil
Kortenaar, Neil ten - PhD, *(Director)*
Lahusen, Thomas - MA, PhD
Le Huenen, Roland – DESL
LeBlanc, Julie - BA, PhD
Li, Victor - BA, MA, PhD
Lindheim, Ralph - BA, MA
Meng, Yue - BA, MA, MA, PhD
Revermann, Martin - PhD
Ross, Jill - MA, PhD, *(Coordinator of Graduate Studies)*
Rupp, Stephen - BA, MA, MPH, MA, PhD
Sternberg, Ricardo - BA, MA, PhD
Zilcosky, John - BA, MA, MA, PhD

Members Emeriti

Chamberlin, J Edward - BA, PhD
Davis, Natalie - BA, MA, PhD
Dolezel, Lubomir - BA, PhD, Fell Royal Society Canada

Fleming, John - BA, MA, PhD
Hutcheon, Linda - BA, MA, PhD
Kushner, Eva - BA, MPH, PhD
Nesselroth, Peter - BA, MA, PhD
Stock, Brian - AB, PhD
Valdes, Mario - BA, MA, PhD

Associate Members

Akbari, Suzanne - BA, MA, MPH, PhD
Barnes, Christopher - BA, MA, PhD
Blackmore, Josiah - PhD
Capozzi, Rocco - BA, MA, PhD
Clark, Caryl - BMus, MA, PhD
Cozea, Angela - BA, MA, PhD
Goetschel, Willi - PhD
Hewitt, Marsha - BA, MA, PhD
Jackson, Heather - BA, MA, PhD
Keith, Alison - BA, MA, PhD
Kippen, James - BA, PhD
Legge, Elizabeth Mm - BA, BA, MA, PhD
Leonard, Garry - BA, MA, PhD
Mason, Hugh - BA, AM, PhD
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
Thomson, David - BA, MA, PhD
Trojanowska, Tamara - MA, PhD
Xie, Ming - PhD

Computer Science

Faculty Affiliation
Arts and Science

Degree Programs Offered
Applied Computing – MScAC
Computer Science – MSc, PhD

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. **Dynamics of Global Change**
   - Computer Science, PhD
2. **Genome Biology and Bioinformatics**
   - Computer Science, PhD
3. K**nowledge Media Design**
   - Computer Science, MSc, PhD

Overview
The Department of Computer Science offers a graduate program leading to three degrees: **Master of Science, Master of Science in Applied Computing,** and **Doctor of Philosophy**. The program consists of courses and either research (MSc and PhD) or practicum (MScAC), both of which are 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.
- 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; 93/120 on the internet-based test and 22/30 on the writing and speaking sections.

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.

Normal Program Length – 3 sessions (full-time); 8 sessions (part-time)

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; 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.

Normal Program Length – 4 years (full-time)

Applied Computing

Master of Science in Applied Computing

Minimum Admission Requirements
- Successful completion of an undergraduate degree in Computer Science equivalent to a four-year program at the University of Toronto.
- A minimum GPA of B+ (77–79%) over the final two years of undergraduate studies.
- Applicants whose primary language is not English and who have graduated from a university where the primary language of instruction is not English must achieve a TOEFL score of at least 580 on the paper-based test and 4 on the TWE; 93/120 on the internet-based test and 22/90 on the writing and speaking sections.
- Three letters of support from faculty and/or employers.
- A statement of purpose.

Program Requirements
- This is a 16-month professional master's program comprising 3.5 full-course equivalents (FCE) of course work and an eight-month industrial internship. The internship (3.5 FCE) is coordinated by the department, and evaluated on a pass/fail basis.
- There is no thesis requirement.

Normal Program Length – 4 sessions (full-time)

Course List

Not all courses are offered every year. Please consult the Department for course offerings.

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   Advanced Machine Learning
CSC 2539H   Topics in Computer Vision
CSC 2540H   Special Topics in Computational Linguistics
CSC 2541H   Topics in Machine Learning
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 4000Y   MSc Research Project in Computer
                    Science

Courses for MScAC only
CSC 2701H   Communication for Computer Scientists
CSC 2702H   Technical Entrepreneurship

Graduate Faculty

Full Members
Abdelrahman, Tarek - BSc, MSc, PhD
Amza, Cristiana - BS, MS, PhD
Bacchus, Fahiem – PhD *(Coordinator of Graduate Studies)*
Bader, Gary - BSc, PhD
Baecker, Ronald - BS, MSc, PhD
Balakrishnan, Ravin - PhD

Beck, J. Christopher - BSc, MSc, PhD
Birnholtz, Jeremy - 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
Corneil, Derek - BSc, MA, PhD
De Lara, Eyal - BS, MS, PhD
Demke 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
Farzan, 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, Graeme - 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
Lesperance, Yves - BSc, MSc, PhD
Levesque, Hector - BSc, MSc, PhD
Li, Baochun - 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
Mihailidis, Alex - BASc, MASc, PhD
Miller, Renee - BS, BM, MS, PhD
Molloy, Michael - BMath, MMath, PhD
Morris, Quaid - BS, PhD
Moshovos, Andreas - BSc, MS, PhD
Neal, Radford - BSc, MSc, PhD
Penn, Gerald - BS, MSc, PhD
Pitassi, Toniann - PhD
Rackoff, Charles - SB, SM, PhD
Schroeder, Bianca - MSc, PhD
Shub, Michael - AB, MA, PhD
Singh, Karan - 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 Nhut - BSc, PhD
Veneris, Andreas - BSc, MSc, PhD
Yu, Eric - BSc, MMath, PhD
Zemel, Richard - PhD

Members Emeriti
Gotlieb, Calvin Carl - BA, MA, PhD
Hume, James - BA, MA, PhD
Mathon, Rudolf - MSc, PhD
Mylopoulos, John - BE, MSc, PhD
Urquhart, Alasdair - MA, MA, PhD
Wortman, David - BE, MS, PhD

Associate Members
Danahy, John - BLA, MRP
Kreinin, Alexander - MSc, PhD
Lyons, Kelly - BSc, MSc, PhD
Mann, Steve - PhD
Sminchisescu, Cristian - MSc, PhD
Trefler, Richard - PhD
Wilson, Gregory - BSc, MS, PhD

Criminology

Faculty Affiliation
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 pursuing 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) 978-7124, ext. 225
Fax: (416) 978-4195

Centre of Criminology
University of Toronto
14 Queen's Park Crescent West
University of Toronto
Toronto, Ontario M5S 3K9
Canada

Degree Programs

Criminology

Master of Arts

Minimum Admission Requirements
- Applicants must have a four-year University of Toronto bachelor's degree or its equivalent from a recognized university. A four-year bachelor's degree normally consists of 20 full-course equivalents (FCE). Applicants with arts and science degrees will normally be required to have at least a B+ standing. Applicants from law schools who have already completed a JD degree or its equivalent will normally be required to have at least a B standing.
- The MA program is designed for students familiar with the approaches and methodologies associated with the social sciences. It would be advantageous for applicants to have some background in the theories of crime and deviance and a basic knowledge of social science research methods. A student who is admitted without such background may be required to do special work before being enrolled.
- The program can be completed on a full-time or part-time basis. All students will be required to complete the program within the time limits set for the MA degree under the general regulations. Students with professional experience who meet the academic admission requirements are encouraged to join the 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:
  o Paper-based TOEFL exam: 580 and 5 on the TWE
  o 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

- 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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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 approval by the Combined Program administrator in each unit.

Normal Program Length – 3 years (full-time)

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
  - 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.

Normal Program Length – 4 years (full-time)

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 enrolment; 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
Bucerius, Sandra - BA, MA, PhD
Doob, Anthony - AB, PhD, Fell Royal Society Canada
Gartner, Rosemary - BA, AA, MS, PhD
Hannah-Moffat, Kelly - BA, MA, PhD
Kruttschnitt, Candace - BA, MA, MPH, PhD
Levi, Ron - BCL, LLB, LLM, SJD
Light, Matthew - BA, MA, JD, PhD
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, Fell Royal Society
  Canada **(Director)**
Wortley, N. Scot - BA, MA, PhD **(Coordinator of
  Graduate Studies)**

Members Emeriti
Beattie, John - BS, MA, PhD, Fell Royal Society Canada,
  Fell Ryl Historical Societ
Friedland, Martin - BCom, LLB, PhD

Associate Members
Condon, Mary - BA, LLM, MA, SJD
Erickson, Patricia - BA, MA, PhD
Skilling, Tracey - BA, MASc, 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. **Educational Policy**
   - Curriculum Studies and Teacher Development, MA, MEd, PhD
   - Second Language Education, MA, MEd, PhD
3. **Knowledge Media Design**
   - Curriculum Studies and Teacher Development, MA, MEd, PhD
   - Second Language Education, MA, MEd, PhD
4. **Sexual Diversity Studies**
   - Curriculum Studies and Teacher Development, MA, MEd, PhD
5. **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 (OISE)
Registrar's Office
Graduate Studies, Admissions Unit
Fourth Floor, 252 Bloor Street West
Toronto, Ontario M5S 1V6
Canada

Program
Web: www.oise.utoronto.ca/ctl/Home/
E-mail: ctlinquiries@utoronto.ca
Telephone: (416) 978-0040
Fax: (416) 926-4744

Department of Curriculum, Teaching and Learning
The Ontario Institute for Studies in Education (OISE)
Eleventh Floor, 252 Bloor Street West
Toronto, Ontario M5S 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/ctl/UserFiles/File/List-CSTD-Research-Interest.pdf 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
- Distance Education and On-line Learning Environments
- Education in Non-school Settings
- Feminist Theories in Education
- Holistic Education, Imagination, and Spirituality
- Knowledge Media/Technology, Knowledge Building and Innovation
- Pre-service and In-service Education
- Queer Theories in Education
- School and District Policy, Environments, Change and Reform
- Teacher Knowledge/Teacher Identity
- Teacher Leadership
- Teacher Professional Learning, Teachers as Change Agents
- Teachers' Work, Lives, Narratives, Beliefs and Knowledge

Curriculum Subject Matter and Teaching/ Learning Processes include subject area content and/or pedagogical approaches:
- Arts and Aesthetic Education
- Conflict/Peace Education
- Critical and Social Justice Pedagogies
- Democratic Citizenship, Global Perspectives, and Social Sciences Education
- Drama/Theatre Pedagogy
- English Language, Children's Literature, and Literacy Education
- Health and Physical Education
- Mathematics Education
- Pedagogy, Instructional Design and Student Assessment
- Science and/or Technology Education
- Student and/or Teacher Problem Solving and Critical Thinking

Diverse Student Populations and Curriculum Issues include challenges and issues in constructing and delivering curriculum for particular diverse students and/or for social change:
- Adaptive and Inclusive Classrooms
- Anti-Racist, Multicultural and Anti-discriminatory Education
- Early Childhood Education
- Educating Immigrant and English as a Second Language Students
- Franco-Ontario and French Language Minority Education
- Gender and Education
- Gifted Learners
- Sexuality and Anti-Homophobia Education

- Students' Identity Construction
- Urban Youth

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.

Normal Program Length – 5 sessions over 2 years (full-time); 8 sessions (part-time)

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. See listing of approved research methods courses at (www.oise.utoronto.ca/ctl/UserFiles/File/CSTD_Research-Courses_0910.pdf).
- Thesis.
- The MA may be taken on a full-time or part-time basis.
- **Note:** Students are responsible for meeting deadlines to complete their course requirements, thesis committee formation, and ethical review.

Normal Program Length – 6 sessions (full-time); 10 sessions (part-time)

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:
  - 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/ctl/Prospective_Students/CTL_Graduate_Programs/Curriculum_Studies_and_Teacher_Development_(CSTD)/).
  - 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.
  - Two letters of reference, one academic and one professional.

Flexible-time PhD

- 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 should demonstrate that they are active professionals engaged in activities relevant to their proposed program of study. See the *OISE Bulletin* for more information.

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/ctl/UserFiles/File/CSTD_Research-Courses_0910.pdf).
- 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.

Normal Program Length – 4 years (full-time PhD); 8 years (flexible-time PhD)

Course List

Not all courses are offered every year. Please consult the Department for course offerings.

CTL 1000H Fondements du l'etude 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 Thoughtful Teaching and Practitioner Inquiry
CTL 1037H Teacher Development: Comparative and Cross-Cultural Perspectives
CTL 1038H 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 1218H Culture and Cognition in Mathematics, Science and Technology Education
CTL 1219H Making Secondary Mathematics Meaningful
CTL 1220H Sociocultural Theories of Learning
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
CTL 1604H Video/Multimedia Design
CTL 1606H Computers in the Curriculum
CTL 1608H Constructive Learning and Design of Online
          Environment
CTL 1609H Educational Applications of Computer-
          Mediated Communication
CTL 1611H Computer-Mediated Distance Education
CTL 1612H The Virtual Library (Non-Credit)
CTL 1614H Knowledge Media and Learning
CTL 1797H Practicum in Curriculum: Master's Level
CTL 1798H Individual Reading and Research in
          Curriculum: Master's Level
CTL 1799H Special Topics in Curriculum: Master's Level

Elementary and Secondary Education

Master of Teaching

The Master of Teaching in Elementary and Secondary Education program offers students a unique educational opportunity that combines teacher qualification with advanced study of educational theory and an opportunity to conduct research. The program provides students with a strong grounding in curriculum, human development, ethics, educational law, diversity, educational technology, teaching, and learning. This teacher education program offers the opportunity for elementary and secondary student teachers to deepen their knowledge of all aspects of teaching. The high level of academic rigor, combined with increased practice teaching experiences enhances and extends the theoretical and practical knowledge of students preparing to become teachers.

The program includes: formal coursework, teaching and research seminars, practice teaching, internship, and a major research project.

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.
- 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:
  o 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
  o 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.

Normal Program Length – 6 sessions (full-time)

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 7006H Reflective Teaching and Inquiry into
          Research in Education
CTL 7007H Authentic Assessment
CTL 7008H 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
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.

Normal Program Length – 4 sessions over 2 years (full-time); 6 sessions (part-time)

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 fulfil 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 fulfil 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.

Normal Program Length – 6 sessions (full-time); 10 sessions (part-time)

Doctor of Philosophy

Individuals participating in the PhD program must have a strong commitment to research. 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 same admission requirements as applicants to the full-time PhD option. However, in addition, applicants to the flexible-time PhD should demonstrate that they are active professionals engaged in activities relevant to their proposed program of study. See the OISE Bulletin for more information.

Program Requirements

- Degree requirements for the full-time and the flexible-time PhD programs are the same.
- The PhD requires 3.0 to 4.0 full-course equivalents (FCE) depending on previous experience and academic qualifications.
- Students must take a minimum of 2.0 FCE CTL 3000-level courses within the SLE Program including CTL 3801H Research Colloquium in Second Language Education, Doctoral Level (unless they have previously taken CTL 3001H Research Colloquium in Second Language Education, Master's Level), as well as a research methods course relevant to the topic of the thesis. Any of the following courses can fulfil 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, HDP 1288H, SES 1905H.
- Comprehensive examination.
- A thesis embodying the results of an original investigation, and a final oral examination on the content and implications of the thesis.
- A student wishing to propose an alternative course to fulfil one of the SLE course requirements will be required to obtain the approval of the SLE Program

coordinator and either her or his faculty advisor or thesis supervisor.

- **Full-time PhD** students must complete their degree within six years. A minimum of two consecutive years of full-time study are required at the beginning of the program, during which time students usually complete course requirements, pass the comprehensive examination, prepare a thesis proposal, and form a thesis committee.
- **Flexible-time PhD** students must complete their degree within eight years. Students may apply for part-time status after four years of full-time registration.

Normal Program Length – 4 years (full-time PhD); 7 years (flexible-time PhD)

Courses

Not all courses are offered every year. Please consult the Department for course offerings.

Master's Level

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 Educatio
CTL 3026H Pragmatics in Second Language Education

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
JHC 1251H Reading in a Second Language
JTE 1952H Language Culture and Education/M. Heller

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
Beattie, Mary - BA, BA, MA, MEd, EdD
Bencze, Lawrence - BEd, BSc, MSc, PhD
Bennett, Barrie - BPHE, MEd, PhD
Bickmore, Kathy - MA, PhD
Brett, M. Clare - BA, MA, PhD *(Associate Chair, Graduate Studies)*
Cameron, Linda - BA, MEd, EdD
Campbell, Elizabeth - BA, BEd, MEd, PhD
Cohen, Rina - MSc, 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
Gitari, Wanja - BEd, MA, PhD
Goldstein, Tara - BA, PhD
Helms-Park, Rena - BA, MA, AM, DPhil
Hewitt, James - BEd, BMath, MEd, PhD *(Associate Chair, Graduate Studies)*
Hodson, Derek - BSc, MEd, PhD

Kerekes, Julie - BA, MA, PhD
Kilbourn, Brent - BS, 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 *(Chair & Graduate Chair)*
Miller, John - BA, MAT, PhD
Pedretti, Erminia - BE, MEd, PhD
Rolheiser, N Carol - BEd, MEd, 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, EdD
Sykes, Heather - BSc, PhD
Thiessen, Dennis - AB, MEd, DPhil
Trifonas, Peter - BE, BA, PhD
Wahlstrom, Merlin - 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, 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
Silvers, Ronald - BA, MA, PhD
Swain, Merrill - BA, PhD
Traub, Ross - PhD

Associate Members
Allen, Guy - BA, MA, PhD
Broad, Kathy - BEd, BA, MEd, PhD
Burnaby, Barbara - BA, BA, MA, PhD
Evans, Mark - BE, BA, MA, PhD
Gaztambide-Fernandez, Ruben - BM, MEd, EdD
Hundey, Ian - BA, MA
Jang, Eunice - BA, MA, PhD
King, Ruth - PhD
Lancaster, Ron - BEd, BS, MMath
Mandigo, James Loyd - BA, MA, PhD
Marks-Krpan, Cathy - BEd, MEd, EdD
McCready, Lance - BA, MA, PhD

Nasmith, Louise - AB, AB, MDCM
Nayer, Marla - BSc, MEd
Niyozov, Sarfaroz - MEd, MA, PhD
Piccardo, Enrica - 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
Warner, Mary Jane - MA, PhD
Woodruff, Earl - MA, PhD
Woods, Devon - BA, PhD

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.

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
Room 104, 124 Edward Street
Toronto, Ontario M5G 1G6
Canada

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.

Normal Program Length –6 sessions (full-time); 12 sessions (part-time)

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*

° Courses which may continue over a program. The course is graded when completed.

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.
- 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.

Program Length - Varies by graduate specialty program undertaken and must conform to the accreditation requirements of the Commission on Dental Accreditation of Canada.

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 hygienist 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 successful completion of all program requirements, students are eligible for the graduate degree. Students, with the exception of dental hygienists, are eligible for Specialty, Fellowship, or Board Certification in the chosen dental specialty. For further information, consult the Faculty of Dentistry Calendar or Web site.

Program Length - Varies by graduate specialty program undertaken and must conform to the accreditation requirements of the Commission on Dental Accreditation of Canada.

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.

Normal Program Length – 4 years sessions (full-time); 5 years (direct-entry)

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[o] *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 of study. The student's supervisor will chair the committee. The committee will closely monitor the student's

[o] Courses which may continue over a program. The course is graded when completed.

ability to sustain satisfactory performance and will report semi-annually to the Graduate Chair of Dentistry for approval and continuance of candidacy.

- 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.

Normal Program Length – varies by specialty, 6 years (full-time)

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:
  - o 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
  - o 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 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.

Normal Program Length – 5 years

Course List

Not all courses are offered every year. The Department should be consulted each session as to course offerings.

Core Courses

DEN 1001Y° Master's Seminars in Oral Health Sciences (Credit/No Credit)
DEN 1100Y° Doctoral Seminars in Oral Health Sciences (Credit/No Credit)
DEN 1015H Introduction to Biostatistics

General Courses

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

° Courses which may continue over a program. The course is graded when completed.

DEN 1014H Clinical Epidemiology and Evidence-Based Care
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 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

Courses for Students in MSc/PhD Specialist Dental Training Programs

DEN 1033Y Periodontology – Seminars and Clinics I
DEN 1034Y Periodontology – Seminars and Clinics II
DEN 1035Y Periodontology – Seminars and Clinics III
DEN 1036Y Literature Review in Periodontology
DEN 1037Y Clinical Case Presentations
DEN 1038Y Biomaterials and Implant/Reconstructive Dentistry
DEN 1039Y Principles and Practice of Periodontology
DEN 1041Y Prosthodontics I – Prosthodontic Treatment Planning
DEN 1042Y Prosthodontics II – Patients with Dentition and Advanced Operative Dentistry Care
DEN 1043Y Prosthodontics III – the Partially Edentulous Milieu and its Management by Fixed Removable or Implant Supported Prostheses
DEN 1044Y Prosthodontics IV – the Edentulous Milieu and its Management by Removable or Implant Supported Prostheses
DEN 1045Y Prosthodontics V – Introduction to Critical Appraisal of the Dental Literature and Evidence-based Practice
DEN 1046Y Clinical Prosthodontics
DEN 1052Y General Anaesthesia for Medical Procedures – Paediatric
DEN 1053Y General Anaesthesia for Medical Procedures – Adult
DEN 1054Y Sedation and General Anaesthesia for Dentistry – Adult
DEN 1055H Basic Principles of Dental Anaesthesia
DEN 1056Y Basic Concepts in Clinical Medicine
DEN 1057Y Dental Anaesthesia Journal Review 1
DEN 1058Y Dental Anaesthesia Journal Review 2
DEN 1059Y Dental Anaesthesia Journal Review 3
DEN 1061H Research Practicum
DEN 1062H Pharmacology of Dental Therapeutics
DEN 1063Y Practicum in Dental Public Health
DEN 1064H Management Principles in Canadian Dental Health Organizations
DEN 1073Y Dental Anaesthesia Graduate Seminars
DEN 1074Y Foundations of Medicine as Applied to Dental Anaesthesia

DEN 1075Y General Anaesthesia for Dentistry
 – Paediatric
DEN 2001Y Orthodontics 1 – Advanced Orthodontic
 Diagnosis and Treatment Planning
DEN 2002Y Orthodontics 2 – Biomechanics
 Orthodontic Technique and Practice
 Administration
DEN 2003Y Orthodontics 3 – Orthodontic Technique
 and Clinical Practice
DEN 2004Y Orthodontics 4 – Interceptive Orthodontics
DEN 2005Y Surgical Orthodontics
DEN 2006Y Facial Growth and Facial Analysis
DEN 2007Y Craniofacial Anomalies
DEN 2008Y Craniofacial Anatomy and Osteology
DEN 2009H Classic Theories of Craniofacial Growth
DEN 2010H Tissue Reaction to Orthodontic and
 Orthopedic Forces
DEN 2011Y Craniofacial Morphology and Development
DEN 3001Y Oral and Maxillofacial Surgery 1 – The
 Physiologic Basis of Disease
DEN 3002Y Oral and Maxillofacial Surgery 2 –
 Principles and Practice of Oral and Maxil-
 lofacial Surgery
DEN 3003Y Oral and Maxillofacial Surgery 3 –
 Evidence-based Literature Reviews in
 Oral and Maxillofacial Surgery
DEN 3004Y Oral and Maxillofacial Surgery 4 – Applied
 Surgical Anatomy of the Head and Neck
DEN 3005H Head and Neck Anatomy
DEN 4001Y Paediatric Dentistry 1 – Theoretical
 Paediatric Dentistry
DEN 4002Y Paediatric Dentistry 2 – Journal Review
DEN 4003Y Paediatric Dentistry 3 – Facial and Dental
 Growth and Development in Paediatric
 Dentistry
DEN 4004H Paediatric Dentistry 4 – Child Behaviour
 Management
DEN 4005Y Paediatric Dentistry 5 – Clinical Paediatric
 Dentistry
DEN 4006Y Paediatric Dentistry 6 – Oral and
 Maxillofacial Surgery as Applied to
 Paediatric Dentistry
DEN 4007H Paediatric Dentistry 7 – Endodontics as
 Applied to Paediatric Disorders
DEN 4008Y Paediatric Orthodontics
DEN 4009Y Paediatrics
DEN 4010Y Care of Patients with Special Needs and
 Applied Paediatric Dentistry
DEN 4011Y Conscious Sedation and Anaesthesia in
 Paediatric Dentistry
DEN 5001Y Graduate Endodontics Case Presentations
DEN 5002Y Graduate Endodontics Topical Literature
DEN 5003Y Graduate Endodontics Current Literature

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
Cvitkovitch, Dennis - BSc, MSc, PhD
Davies, John - BSc, BDSc, PhD, DSc
Deporter, Douglas - DipPerio, DDS, PhD
Dostrovsky, Jonathan - BSc, MSc, PhD
Ellen, Richard - DDS
El-Mowafy, Omar - BDS, PhD
Fillery, 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
Hinz, J. Boris - PhD
Jokstad, Asbjorn - MS, DDS, PhD
Kenny, David - BSc, DDS
Kishen, Anil - BDS, MDS, PhD
Lam, Ernest - BSc, MSc, DMD, PhD
Lawrence, Herenia - MSc, DDS, PhD
Levesque, Celine - BSc, MSc, PhD
Limeback, Hardy - BSc, DDS, PhD
Manolson, Morris – PhD *(Interim Director/Postgraduate Studies)*
McCulloch, Christopher - BSc, DDS, PhD
Mock, David - DDS, PhD, Fell Ryl Coll Dent Canada
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
Sone, Eli - BSc, MS, PhD
Tenenbaum, Howard - DDS, PhD *(Interim Coordinator of Graduate Studies)*

Members Emeriti
Anderson, James - BSc, DDS
Bennick, Anders - DipPerio, MSc, DDS, PhD
Burgess, Ralph - BSc, MSc, DDS
Heersche, Johannes - BSc, PhD
Leake, James - DDPH, MSc, DDS
Liebgott, Bernard - DDS, MScD, PhD
Mayhall, John - BA, MA, DDS, PhD
Pilliar, Robert - BASc, PhD
Ross, Robert Bruce - MSc, DDS, Fell Ryl Coll Dentistry
Titley, Keith - DDS
Watson, Philip - DDS, BDSc, MScD
Woodside, Donald - BSc, DDS, MScD, Fell Ryl Coll Dent Canada
Zarb, George - BScD, MS, DDS

Associate Members
Andrews, Paul - BSc, MSc, DDS
Avivi-Arber, Limor - MSc, PhD
Baker, Gerald - DDS, MS, Fell Ryl Coll Dentistry

Barzilay, 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
Iakounine, Alexandre - MSc, ScD
Judd, Peter - BSc, MS, DDS
Kulkarni, Gajanan - LLB, MSc, BDS, PhD
Lai, Jim Yuan - BSc, DRMedDent, MSD, Fell Ryl Coll
 Dent Canada
Laing Gibbard, Leslie - BSc, BEd, MSc, MS, DDS, PhD
Laporte, Audrey - BA, MA, PhD
Leong, Iona - BSc, MSc, BDS
McComb, Dorothy - BDS, MScD
McComb, Richard - MSc, BDS
Metaxas, Angelos - DIPORH, MSc, DDS, DDSc
Peel, Sean - BSc, PhD
Pharoah, Michael - BSc, DDS
Prakki, Anuradha - MSc, DDS, PhD
Quinonez, Carlos R. - MS, DMD
Saltzman, Brett - BA, MSc, DDS
Sigal, Michael - MSc, DDS
Suri, Sanjay - BDS, MDS
Sutherland, Susan - BScN, MSc, DDS
Talwar, Reena - BSc, DDS, PhD
Tam, Laura - BSc, MSc, DDS
Tompson, Bryan - DDS
Wood, Robert - MSc, DDS

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.
- Students with a master's degree and 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 master's or four-year bachelor's degree enter the MD/PhD program and, within a six to seven-year period, 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 master's or four-year bachelor's degree enter the medical program on a full-time basis. After 12–18 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 2–3 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. **Diaspora and Transnational Studies**
   - Drama, MA, PhD
2. **Sexual Diversity Studies**
   - Drama, MA, PhD
3. **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, Theory of Drama, 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 practices; 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, theatre and performance from the other departments, centres, and institutes across the Faculty.

Graduate students build on the kind of foundation that would normally be laid in four years of undergraduate study with a concentration in theatre, drama, and performance studies. Performance practice is an integral part of graduate work in the Centre and it takes place, for the most part, at the Robert Gill 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

Centre for Study of Drama
University of Toronto
Koffler Student Services Centre
214 College Street
Toronto, Ontario M5T 2Z9
Canada

Degree Programs

Drama

Master of Arts

Minimum Admission Requirements
- Applicants for admission to the Centre are considered under the general regulations. Admissions are selective; possession of minimum qualifications does not guarantee acceptance.
- Four-year University of Toronto BA with at least a B+ standing with a significant concentration in theatre, drama, performance, and related disciplines, or its equivalent from a recognized university.
- Applications received after February 1 may be too late for consideration. Contact the Graduate Coordinator for further information.

Program Requirements
- A minimum of 4.5 full-course equivalents (FCE), as approved by the Centre, including both DRA 1003Y: *Introduction to Theatre, Drama, and Performance Studies*, and DRA 5000Y *Theatre Practice*.
- The Centre may prescribe certain courses in the individual programs of MA students.
- Normally the program requires one year of full-time study or the part-time equivalent. In some cases, students with insufficient background in the discipline may be admitted to a two-year MA program, with additional course requirements.

Normal Program Length – 3 sessions (full-time)

Doctor of Philosophy

Minimum Admission Requirements
- Applicants for admission to the Centre are considered under the general regulations. Admissions are selective; possession of minimum qualifications does not guarantee acceptance.
- 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.

- o 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. Students who do not qualify for direct entry into the PhD will be considered for the MA program.
- 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**:
  - o 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*;
  - o satisfy the Centre's dramaturgical and performance practice requirement by completing DRA 5001Y;
  - o 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;
  - o pass comprehensive examinations;
  - o 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;
  - o 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**:
  - o Complete 3.5 full-course equivalents (FCE) in addition to the PhD requirements listed above, including DRA 1003Y for a total of 7.5 FCE, and satisfy the Centre's dramaturgical and performance practice requirements as determined on admission.
  - o Must maintain an A- average in their first 3.5 FCE in order to continue in the program.

- o 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.

Normal Program Length – 4 years (full-time)

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.

A listing of courses, available during the academic year, appears on the Centre's Web site, which is updated in mid-summer. Students requesting courses from other units may be subjected to quotas and/or wait lists. Language and literature departments do not always provide courses in English translation. Confirm all course

information – including date, time, location – with the appropriate unit as well as with the Centre's Graduate Coordinator.

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
Justice, Daniel - BA, MA, PhD
Kanaganayakam, Chelvanayakam - PhD
Keil, Charles - BA, MA, PhD
Kingwell, Mark - AB, BA, AM, MPH, 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
Lopez, Jeremy - BA, MA, DPhil
MacLean, Sarah - BA, MA, PhD
Michelucci, Pascal - BA, MA, PhD
Most, Andrea - BA, MA, PhD
Parker, Mary Ann - BA, MM, PhD, Assoc Royal Conserv Tor
Pietropaolo, Domenico - BSc, MA, PhD
Quayson, Ato - BA, PhD
Revermann, Martin - PhD
Ross, Jill - MA, PhD
Rupp, Stephen - BA, MA, MPH, MA, PhD
Sammond, Nicholas - BA, MA, PhD
Soldovieri, Stefan - AB, AM, DPhil
Somigli, Luca - PhD
Sperdakos, Paula - BA, MA, PhD
Ten Kortenaar, Neil - PhD
Thomson, H. Leslie - BA, MA, PhD
Trojanowska, Tamara - MA, PhD *(Acting Director, July 1 – December 31, 2010)*

Members Emeriti

Plant, Richard - PhD
Schonberg, Michal - BA, MA, 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
Odom, Selma - PhD
Pietropaolo, Damiano - AM
Rankin, Katharine - BA, MA, PhD
Ruti, Marjut - BA, MA, PhD
Syme, Holger Schott - PhD
Testa, Bart - BA, MA
Warner, Mary Jane - 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. **Book History and Print Culture**
   • East Asian Studies, MA, PhD
3. **Sexual Diversity Studies**
   • East Asian Studies, MA, PhD
4. **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 BA degree, or its equivalent from a recognized university with a major in East Asian Studies and at least B+ standing in the final year. Applicants without a major in East Asian Studies may also be considered, provided they demonstrate sufficient scholarly interest and academic preparation in East Asian Studies.
- Statement of approximately 500 words (two pages) setting out the student's main fields of interest and proposed course of study.
- Two letters of recommendation from scholars who have knowledge of previous academic work.
- Programs are based on the study of original texts. This presupposes 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 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 January 31 for admission the following September.

Program Requirements
- 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.

Normal Program Length – 3 sessions (full-time)

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 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.

Normal Program Length – 4 years post-master's PhD (full- time); 5 years direct-entry PhD (full-time).

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 1155H   Book Culture in Pre-modern East Asia
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 1510Y   Critical Studies of "Civil Society": Centred on the Twentieth-Century History of Japan and Korea
EAS 1603H   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 1130H   Rethinking China's Cultural Revolution: History, Politics and Theory
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,Y Modern Korean History Seminar
EAS 1174H,Y Rethinking Empire in East Asia
EAS 1425H   Critique of Everyday Life and Capitalism
EAS 1427H   On Contingency and Capitalism
EAS 1428Y   Foucault & Marx
EAS 1429H   Topics in Marxism and Japan
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 1115Y   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 1304H   Modern Standard Japanese IVa (Credit/No Credit)
EAS 1305H   Modern Standard Japanese IVb (Credit/No Credit)
EAS 1321H   Japanese I for Students with Prior Background (Credit/No Credit)
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,Y Intermediate 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)
EAS 1803Y   Modern Standard Chinese III (Credit/No Credit)
EAS 1804Y   Modern Standard Chinese IV (Credit/No Credit)
EAS 2001Y   Introduction to Classical Japanese
EAS 2002Y   Intermediate Classical Chinese
EAS 2006Y   Advanced Sanskrit Texts II (formerly EAS 2005Y)
EAS 2007H   Advanced Sanskrit Texts I

Linguistics and Pedagogy
EAS 1352H   Introduction to Japanese Linguistics: Syntax and Semantics

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
EAS1227H   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
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

Visual and Performing Arts
EAS 1229H   Topics in Chinese Aesthetics
EAS 1339H   Topics in Chinese Art Theories

Graduate Faculty

Full Members
Ahn, Juhn - BA, MA, PhD
Cazdyn, Eric - BA, MA, PhD
Chin, Carol - BA, MA, PhD
Crawford, Gary - BSc, MA, PhD
Guisso, Richard WI - DPhil
Hsiung, Ping-Chun - 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
Poole, Janet - BA, AM, MPH, 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, 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, MA, PhD
Hoff, Frank - BA, MA, PhD
Liman, Anthony - MA
Lynn, Richard - BA, MA, PhD
Nakajima, Kazuko - BA, MA, MPH
Schlepp, Wayne - BSc, BA, PhD
Tsukimura, Reiko - BA, MA, PhD
Waterhouse, David - BA, LRAM, MA, MA

Associate Members
Feng, Linda Rui - BA, MA, MPH, DPhil
Peng, Ito - BSW, BSc, MA, PhD
Rupprecht, Hsiao-Wei - BA, MA, MLS, PhD
Virag, Curie - AB, MA, PhD
Wong, Joseph - BA, MA, PhD, Canada Research Chair
Wu, Yiching - BA, MA, MA, PhD

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
The disciplines of Ecology and Evolutionary Biology involve complementary perspectives on biological systems. Individual and collaborative research within the department covers the range of both disciplines and often involves study and synthesis across multiple levels of organization. Professors' research interests include 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
- Students must complete a 0.5 graduate full-course equivalent (FCE) chosen from courses offered. The Faculty Research Course is recommended; however, other courses are also acceptable on the advice of supervisory faculty.
- A thesis is completed under the direction of the student's supervisor, assisted by an advisory committee, and defended at a departmental oral examination.

Normal Program Length – 3 sessions (full-time)

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

- Exceptional students admitted to the PhD program without an MSc degree 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 to 20 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.

Normal Program Length – 4 years (full-time PhD); 5 years (full-time, direct-entry PhD)

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

EEB 1002H	Advanced Research and Reading Course
	(This course may be taken only once for credit, and is only available to students who were admitted to the old Zoology, Plant and Microbial Biology, or Botany programs)
EEB 1100H	Faculty Research Course
EEB 1210H	Advanced Statistics
EEB 1230H	Multivariate Statistics
EEB 1250H	Spatial Statistics
EEB 1310H	Philosophy and Methods
EEB 1320H	Ecology
EEB 1350H	Evolution
EEB 1360H	Behaviour
EEB 1420H	Special Topics in Ecology
EEB 1440H	Special Topics in Evolution
EEB 1470H	Special Topics in Integrative Biology

Graduate Courses with Significant Undergraduate Content

These courses will normally constitute only a minor component of the required credits

EEB 1004H	Vertebrate Paleontology
EEB 1328H	Physiological Ecology
EEB 1330H	Systematic Botany
EEB 1337H	Families of Vascular Plants
EEB 1340H	Comparative Plant Morphology
EEB 1341H	Plant Anatomy

EEB 1459H	Population Genetics
EEB 1460H	Molecular Evolution
EEB 1468H	Limnology

Graduate Faculty

Full Members

Abrams, Peter - PhD
Agrawal, Aneil - BSc, PhD
Andrade, Maydianne - BSc, MS, PhD
Baker, Allan - MSc, PhD
Baker, Robert - BSc, MSc, PhD
Barrett, Spencer - BSc, PhD, Canada Research Chair
Boonstra, Rudy - BSc, PhD
Brooks, Daniel - BS, MS, PhD
Buck, Leslie - BSc, PhD
Cadotte, Marc W. - BS, MS, 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 *(Associate Chair, Graduate Studies)*
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
Frederickson, Megan - AB, PhD
Fulthorpe, Roberta - BSc, MSc, PhD
Gibo, David - BA, PhD
Gross, Mart - BSc, PhD
Guttman, David - BS, PhD
Gwynne, Darryl - BSc, PhD
Irwin, David - 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
Mason, Andrew - MS, PhD
McLennan, Deborah - BSc, PhD
Moncalvo, Jean-Marc - PhD
Murphy, Robert - PhD
Reisz, Robert - BSc, MSc, PhD
Rodd, F. Helen - PhD
Rowe, Locke - BSc, MS, PhD *(Chair & 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
Thomas, Sean - BA, PhD
Thomson, James - MS, PhD
Wagner, Helene - MSc, MSc, PhD
Weis, Arthur - BPhil, PhD
Welch Jr., Kenneth Collins - BS, MA, PhD
Williams, D Dudley - DipEd, BSc, MSc, PhD, DSc
Winterbottom, Richard - PhD
Wright, Stephen - BSc, MS, PhD
Zimmerman, Ann - BA, PhD

Members Emeriti

Dengler, Nancy - BA, MS, PhD
Harvey, Harold - MSc, PhD
Morris, Glenn - BSA, MS, PhD
Mrosovsky, Nicholas - BA, PhD

Associate Members

Johnson, Timothy - BSc, MSc, PhD
Lester, Nigel Paul - BA, MSc, PhD
Mandrak, Nicholas - PhD
Minns, Charles - PhD
Moses, Alan - BA, PhD
Ridgway, Mark - MSc, PhD
Shuter, Brian - BSc, MSc, PhD
Somers, Keith - MSc, PhD
Walsh, Denis - BA, MPH, PhD

Economics

Faculty Affiliation
Arts and Science

Degree Programs Offered
Economics – MA, Combined MA/JD, PhD, Combined PhD/JD

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 the Joint Programs section of this calendar.

Contact and Address
Web: www.economics.utoronto.ca
E-mail: ecograd@chass.utoronto.ca
Telephone: (416) 978-4544
Fax: (416) 978-5277

Department of Economics
Max Gluskin House
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, intermediate microeconomics, intermediate macroeconomics, and statistics.
- Admission is competitive, so accepted applicants will normally have achieved a standing considerably higher than the minimum of at least a mid-B (75%) in the final year.

Program Requirements
- For the MA regular stream, successful completion of the mathematics and statistics course (ECO 1010H) review, and 4.0 full-course equivalents (FCE) including the core courses micro (ECO 2060H), macro (ECO 2061H), and econometrics (ECO 2408H).
- For the MA doctoral stream, successful completion of the mathematics and statistics course (ECO 1011H), and 4.0 full-course equivalents (FCE), including the core courses micro, macro, and econometrics. Of the three core courses, one sequence must be taken at the PhD level. The corresponding courses at the PhD level are ECO 2020H and ECO 2030H (micro), ECO 2021H and ECO 2031H (macro), and ECO 2400H and ECO 2401H (econometrics), along with the respective associated tutorial (ECO 2050H, ECO 2051H, or ECO 2410H).

Normal Program Length – 2 sessions (full-time)

Doctor of Philosophy

Minimum Admission Requirements
- Minimum B+ standing in a MA program in economics. Admission is competitive, so 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 6 half-courses, including the required courses for a major field and a minor field.
- Second-year and third-year students must also participate in the full-year graduate research seminar (ECO 4060Y°).
- Suitable PhD-level courses taken by a student in the MA program in the Department of Economics may fulfil some of the course requirements of the PhD program.
- 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.
- A thesis based on original research.

Normal Program Length – 4 years (full-time)

Combined Master of Arts/Juris Doctor

The MA/JD 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 MA/JD program.

Program Requirements
- Successful completion of the mathematics and statistics course (ECO 1010H).
- 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 Doctor of Philosophy/Juris Doctor

The Combined PhD/JD 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 PhD/JD program.

° Courses which may continue over a program. The course is graded when completed.

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.
- A thesis based on original research.

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 for MA Regular Stream Students (Credit/No Credit)
ECO 1011H Mathematics and Statistics 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
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 2006H Topics in the History of Economic Thought

Economic History
ECO 2234H Topics in North American Economic History

International Economics
ECO 2300H International Trade Theory
ECO 2301H International Monetary Theory
ECO 2303H International Monetary Economics
ECO 2305H Topics in International Finance
ECO 2310H Topics in International Trade

Econometrics
ECO 2400H Econometrics I
ECO 2401H Econometrics II
ECO 2402H Advanced Econometrics

ECO 2403H   Topics in Econometrics
ECO 2404H   Empirical Applications of Economic Theory
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
             (Prerequisite: ECO 358H (70%)/ECO 460H (70%))
             (Exclusion: ACT 349H, MGT 331Y, MGT 337Y,
             MGT 438H, RSM 332H, RSM 333H, RSM 435H)
ECO 2507H   International Financial Markets
ECO 2508H   Risk Management for Financial Managers

Public Economics
ECO 2600H   Public Economics I
ECO 2601H   Public Economics II
ECO 2606H   Topics in Public Economics
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
JPE 2408Y   The Political Economy of Development

Labour Economics
ECO 2800H   Labour Economics I
ECO 2801H   Labour Economics II
ECO 2802H   Economics Inside Organizations

Industrial Organization
ECO 2900H   Industrial Organization and Public Policy I
ECO 2901H   Industrial Organization and Public Policy II

Law and Economics
ECO 3501H   Economic Analysis of Law
ECO 3504H   International Trade Regulation (also LAW
             285)

°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.

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
Duarte, Margarida - MEC, PhD
Duranton, Gilles - BSc, MSc, MA, PhD
Faig, Miquel - MEC, 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 - BComm, PhD
McMillan, Robert - AB, DPhil
Melino, Angelo - BA, PhD
Moggridge, Donald - BA, MA, PhD
Oreopoulos, Phllip - BA, MA, PhD
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
Yatchew, Adonis - BA, MA, PhD
Zhu, Xiaodong - PhD

Members Emeriti

Berry, R Albert - BA, PhD
Cohen, Jon - BA, MA, PhD
Eddie, 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
Indart, Gustavo - BA, MA, PhD
Kambourov, Gueorgui - BA, MA, DPhil
Malinova, Ekaterina - BS, MA, PhD
Masson, Paul - 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
Suzuki, Junichi - BA, MA, 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 is a course-based degree program and 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*.

Normal Program Length – 2 years or 6 sessions (full-time)

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.

Normal Program Length – 1 year or 3 sessions (full-time)

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.

Normal Program Length – 4 years or 12 sessions

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 1084H	Design of Advanced High-Efficiency Switched Mode Power Supplies

ECE 1085H   Power System Optimization
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
ECE 1251H   Matter Wave Interaction
ECE 1252H   Introduction to Computational
             Electrodynamics
ECE 1253H   Active Microwave Circuits

Electronics
ECE 512H   Analog Filters
ECE 530H   Analog Electronics
ECE 534H   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 1435H   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
ECE 1470H   Nanocomposite Materials for
             Luminescence, Detection, Modulation,
             and Switching
ECE 1471H   Erbium-doped Fiber Amplifiers: Design and
             Characterizations
ECE 1472H   Photonic Fabrication and Packaging
ECE 1473H   Micro and Nano Fabrication Technologies
             for Compound Semiconductors
ECE 1474H   Fibre Lasers and Amplifiers
ECE 1475H   Bio Photonics
ECE 1476H   High-efficiency Photovoltaics

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
ECE 1644H	Large Scale System Theory and Control II
ECE 1646H	Digital Control
ECE 1647H	Introduction to Nonlinear Control Systems
ECE 1648H	Nonlinear Control Systems
ECE 1649H	Adaptive Control
ECE 1651H	Adaptive Signal Processing and Control
ECE 1652H	Stochastic Processes with Applications
ECE 1653H	Hybrid Systems and Control Applications
ECE 1654H	Optical Networks: A Systems Control Perspective
ECE 1655H	Optimal Control

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 1749H	Interconnection Networks for Parallel Computer Architectures
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 1761H	Advanced Topics in Digital Hardware
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

Graduate Faculty

Full Members

Aarabi, Parham - BASc, MASc, PhD
Abdelrahman, Tarek - BSc, MSc, PhD
Adve, Raviraj - BTech, PhD
Aitchison, 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, MASc, 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 - DipIng, MSEE, PhD
Enright Jerger, Natalie - BSc, MSc, PhD
Fiume, Eugene - BM, 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 - DipIng, MSc, PhD
Helmy, Amr - BSc, MSc, PhD
Herman, Peter - BEng, MSc, PhD
Hum, Sean - BSc, MSc, PhD, Reg Professional Engineer
Iravani, Mohammad - BSc, MSc, PhD
Jacobsen, Hans-Arno - MCS, PhD
Johns, David Andrew - BASc, MASc, PhD
Kherani, Nazir - BASc, MASc, PhD
Khisti, Ashish - BASc, PhD
Kschischang, Frank - BASc, MASc, PhD
Kwong, Raymond - SB, SM, PhD
Lehn, Peter - BScEE, MSc, DPhil
Leon-Garcia, Alberto - BS, MS, PhD
Levi, Ofer - PhD
Li, Baochun - BEng, MSc, DPhil
Liang, Ben - BS, MS, PhD
Lie, David - BASc, MS, DPhil
Liebeherr, Jorg - DipIng, PhD
Lim, Teng Joon - BEng, PhD
Lo, Hoi-Kwong - BA, MA, MS, PhD
Maggiore, Manfredi - MS, PhD

Mandelis, 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
Najm, Farid - BE, MSEE, PhD *(Chair & Graduate Chair)*
Ng, Wai Tung - BSc, MASc, PhD
Pavel, Lacra - BEng, PhD
Plataniotis, Konstantinos - DipIng, MS, PhD
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
Steffan, J. Gregory - BASc, MS, MASc, 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, Joaquim Jose - BSc, MS, PhD
Voinigescu, Sorin - MS, PhD
Wong, Willy - BSc, MSc, PhD *(Associate Chair, Graduate Studies)*
Yu, Wei - BASc, MSEE, 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, Assoc Royal Conserv Tor
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
Slemon, 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. **Diaspora and Transnational Studies**
   - English, MA, PhD
3. **Editing Medieval Texts**
   - English, PhD
4. **Health Care, Technology and Place**
   - English, PhD
5. **Jewish Studies**
   - English, MA, PhD
6. **Sexual Diversity Studies**
   - English, MA, PhD
7. **South Asian Studies**
   - English, MA, PhD
8. **Women and Gender Studies**
   - English, MA, PhD
9. **Women's Health**
   - English, MA, PhD

Overview
One of the strongest and most diverse graduate English programs in North America, the University of Toronto's Graduate 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.english.utoronto.ca
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:
1. American Literature
2. Aspects of Theory
3. Canadian Literature
4. Creative Writing
5. Medieval Literature
6. Renaissance Literature
7. Restoration and Eighteenth-Century Literature
8. Romantic and Victorian Literature
9. Twentieth-Century British and Irish Literature
10. World Literatures 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:
  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
- Admissions are selective; possession of minimum qualifications does not guarantee admission.

Program Requirements
(All fields except Creative Writing – see below)
- 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.

Normal Program Length – 3 sessions (full-time)

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
- Completion of 2.0 full-course equivalents in English, ENG 8000H Introduction to Bibliography, ENG 6950Y *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.

Normal Program Length – 5 sessions (full-time)

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 2.5 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

Fields
The PhD in English degree is offered in nine fields:
1. American Literature
2. Aspects of Theory
3. Canadian Literature
4. Medieval Literature
5. Renaissance Literature
6. Restoration and Eighteenth-Century Literature
7. Romantic and Victorian Literature
8. Twentieth-Century British and Irish Literature
9. World Literatures in English

Minimum Admission Requirements
- General Regulations of the School of Graduate Studies.
- Admission by one of two routes:
  - a four-year University of Toronto bachelor's degree, or its equivalent from a recognized university, that includes at least eight full-course equivalents in English with an average grade of at least an A- in the applicant's overall program or
  - 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:
  - 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
- 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.

Normal Program Length - 4 years (full-time PhD); 5 years (full-time, direct-entry PhD).

Courses
- The minimum course requirements for the degree are as follows.
  - **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 6.0 additional FCE in English, as approved by the department. The student must 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-. Students must complete all remaining courses, except for ENG 9500Y *Professional Development*, by the end of the third year of the program, with an average of at least an A- in order to maintain good academic standing and to continue in the PhD program. In order to maintain good academic standing, and to continue in the PhD program, the student must complete each course with a grade of at least B.
  - **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 3.0 additional FCE 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 all course work by the end of the second year of the program, maintaining an average of at least an A-. A student who receives a final grade for a course lower than a B will no longer be in good academic standing.

- Every student must take at least 2.0 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 fulfilment 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 has three components: a written examination, based on a reading list related to the student's thesis research and drawn up in consultation with the supervisory committee; a short position paper, in which the student articulates the argument and stakes of the proposed thesis in light of the preparation for this written examination; and an oral examination that engages in part with the written examination and in part with the position paper. Students entering the PhD program with a master's degree generally take the Special Field Examination no later than the end of the first session of their third year. Students entering the program directly from a bachelor's degree generally take the examination no later than the end of the first session of the fourth year. A second attempt of the Special Field Examination is allowed on the recommendation of the student's committee.
- The student must have completed all requirements for the degree, exclusive of thesis research, by the end of 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 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 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 1009H Writing the Nation: Pre-Modern Historiographies
ENG 1551H The Canterbury Tales
ENG 2001H Animal/Human Interfaces in Early Modern Culture
ENG 2235H "1594"
ENG 2429H Gender, Courtesy, and Civility in Early Modern England
ENG 2467H Milton's Early Modern Nation
ENG 2485H London Drama 1190-1590
ENG 2533H Historicizing Shakespeare's Language: Discourse Analysis and Early Modern Studies
ENG 2586H Popular Drama in Early Modern England
ENG 2583H Popular Legend in the Plays of Shakespeare and His Contemporaries
ENG 2653H Renaissance Tragedy
ENG 3044H English Comedy, 1660-1737
ENG 3403H Literature of the Seven Years War
ENG 4216H Romanticism and the Literature of Mobility
ENG 4503H Darwin and Darwinism
ENG 4665H Romantic Cities
ENG 4881H Victorian Realism and the Victorian Realist Novel: Studies in Narrative
ENG 4906H Novel, Reconstruction, and the Civil War Amendments
ENG 4947H Studies in Victorian Poetry (Ballads and Romances)
ENG 5024H Anglo-Jewish Fiction and Poetry of the Twentieth Century
ENG 5058H Magical Realism(s): Postcolonialism and Postmodernism

ENG 5206H "Sir Beelzebub's Syllabub": The Poetry of Edith Sitwell
ENG 5276H The Vietnam War Era and Canadian Literature
ENG 5318H Catastrophe, Community, Commodity, and Control in the 1930s: Studies in Historical Analysis
ENG 5519H Narrative, Narratology, and Modernist Fiction: Studies in Narrative
ENG 5572H The City as Archive: Social Memory, Missing Histories, Writing
ENG 5581H The Idea of the Modern
ENG 5751H Novelists and Terrorists
ENG 5787H The Poetics of Haunting in Canadian Fiction
ENG 5905H Introduction to African-Canadian Literature
ENG 6043H Introduction to Contemporary Literary Theory
ENG 6056H Ideologies
ENG 6065H Repetition in Modern Thought and Culture
ENG 6154H Race and Cinema
ENG 6160H The Politics of Poetic Form: Studies in Poetics
ENG 6163H The Fate of Culture in an Age of Globalization
ENG 6193H Communities of Readers
ENG 6223H The Text of Donne: The Variorum Donne
ENG 6362H History and Structure of the English Language: Post-1500
ENG 6496H Spatializing Marxism: the Postmodern "Spatial Turn"
ENG 6522H Transnational Masculinity in Literature and Culture
ENG 6546H Literature and the Resistance to Being
ENG 6530H Death in Theory
ENG 6817H Text, Context, Intertext: the Touch of Evil Project
ENG 6842H The Culture and Politics of Emotion Theory
ENG 6860H Authoring
ENG 6950Y Workshop in Creative Writing
ENG 6951H The Pragmatics of Writing Biography
ENG 6954H Bibliography
ENG 8000H Introduction to Bibliography
ENG 9500H Professional Development
ENG 9900H Professing Literature

Graduate Faculty

Full Members

Ackerman, Alan - MA, PhD
Akbari, Suzanne - BA, MA, MPH, PhD
Astington, John - BA, MA, PhD
Baird, John - PhD
Bewell, Alan - MA, PhD *(Chair & Graduate Chair)*
Bolus-Reichert, Christine - BPhil, AM, PhD
Brown, Russell - BA, MA, PhD
Chamberlin, J Edward - BA, PhD
Clarke, George Elliott - PhD
Cobb, Michael - BA, MA, AM, PhD

Columpar, Corinn - BA, PhD
Corman, Brian - AB, AM, PhD
Cuddy-Keane, Melba - BA, MA, PhD
de Quehen, A Hugh - BA, BA, PhD
DeLombard, Jeannine - AB, AM, DPhil
Dolan, Neal - BA, PhD
Downes, Paul - PhD
Esch, Deborah - PhD
Esonwanne, Uzoma - BA, MA, PhD
Fenwick, Gillian - PhD
Galbraith, David - MA, PhD
Gillespie, Alexandra - BA, BSc, PhD
Goldman, Marlene Beth - BFA, MA, PhD
Greene, Richard - PhD
Harvey, Elizabeth - PhD
Healey, Antonette - BA, MA, PhD
Henderson, Greig - BA, MA, PhD
Hill, Colin - BA, MA, PhD
Hutcheon, Linda - BA, MA, PhD
Jackson, Heather - BA, MA, PhD
Jaffe, Audrey - BA, PhD
Justice, Daniel - BA, MA, PhD
Kanaganayakam, Chelvanayakam - PhD
Keymer, Thomas - BA, MA, PhD
Klausner, David - AB, PhD
Lamb, Susan - BA, AM, DA
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
Lopez, Jeremy - BA, MA, DPhil
Lynch, Deidre - BA, PhD
Magnusson, Lynne - BA, MA, PhD
Matus, Jill - BA, MA, PhD
Mcleod, Robert - AB, MA, PhD
Morgenstern, Naomi - BA, MA, PhD
Most, 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
Ruti, Marjut - BA, MA, PhD
Salih, Sara - BA, DPhil
Sammond, Nicholas - BA, MA, PhD
Schmitt, Emmett - BA, MA, PhD
Solecki, Samuel - BA, MA, PhD
Stevens, Paul - BA, MA, PhD
Sullivan, Rosemary - BA, MA, PhD
Ten Kortenaar, Neil - PhD
Thomson, H. Leslie - BA, MA, PhD

Townsend, David Robert - BA, MA, PhD
Warley, Christopher - BA, MA, DPhil
Weisman, Karen - BA, PhD
White, Daniel - BA, AM, DPhil
Woodland, Malcolm - BA, MA, PhD

Wilson, Sarah - BA, MA, PhD
Xie, Ming - PhD
Yu, Timothy - AB, PhD

Members Emeriti
Adamowski, Thomas - PhD
Allen, Peter - BA, MA, PhD
Asals, Frederick - AB, MA, PhD
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, Assoc Royal Conserv Tor
Flahiff, Frederick - BA, PhD
Graziani, Rene' Ic - BA, MA, PhD
Halewood, William - AB, MA, PhD
Harvey, Elisabeth Ruth - 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
Macpherson, Jay - PhD
Marker, Frederick - AB, DFA
Millgate, Jane - PhD
Millgate, Michael - BA, MA, PhD
Parker, Brian - PhD
Rigg, Arthur George - BA, MA, DPhil
Saddlemyer, Ann - PhD, DLitt
Sidnell, Michael - BA, MA, PhD
Stock, Brian - AB, PhD
Vicari, E Patricia - BA, MA, PhD
Visser, Colin - BA, BLitt, PhD
Warkentin, Germaine - PhD

Associate Members
Baker, Deirdre - BA, MA, PhD
Blayney, Peter - BA, PhD
Campbell, Christian - BA, MPH, PhD
Dickie, Simon - BA, MA, PhD
Dooley, Ann - BA, MA, PhD
Larson, Katherine - BMus, AB, MPH, PhD
MacLean, Sarah - BA, MA, PhD
Maurice, Alice - BA, DPhil
McGill, Robert - PhD
Radovic, Stanka - PhD
Rubright, Marjorie - AB, MA, DLitt
Seitler, Dana - BA, MA, PhD
Suzack, Cheryl - PhD
Syme, Holger Schott - PhD
Vernon, Karina Joan - BA, MA, 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
Web: www.utoronto.ca/ceres/
E-mail: ceres.admin@utoronto.ca
Telephone: (416) 946-8938
Fax: (416) 946-8939

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:
  - 2.0 FCE in a discipline chosen by the student as his or her major discipline.
  - ERE2001H, taken in the first year of the program.
  - 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.
  - The remaining 2.5 FCE must be drawn from at least two disciplines other than the major discipline.

Normal Program Length – 6 sessions (full-time)

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 1400H Soviet and Kosher: Jewish Popular Culture in the Soviet Union 1917-1991
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 1660H Modernism and the Other
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 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
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 Kievan Rus'
HIS 1294H In the Soviet Archives: Text and History (joint graduate/undergraduate)
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 (joint graduate/undergraduate)

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

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: Slanislavski,
             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.

(PR) Courses with prerequisites

Graduate Faculty

Full Members
Ambros, Veronika - MA, PhD
Austin, Robert - BA, MA, PhD
Barnes, Christopher - BA, MA, PhD
Bathelt, Harald - MA, PhD
Bergen, Doris - MA, PhD
Bodemann, Michal - 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
Friedmann, Harriet - AB, MA, PhD
Hansen, Randall - BA, MPH, PhD, Canada Research
  Chair *(Coordinator of Graduate Studies)*
Johnson, Robert - BA, PhD
Kivimae, Juri - AM, PhD
Knop, Karen - BSc, LLB, LLM, SJD
Komaromi, Ann - MA, DPhil
Kopstein, Jeffrey - BA, MA, PhD
Koznarsky, Taras - MA, PhD
Kramer, Christina - BA, MA, PhD
Krementsov, Nikolai - PhD
Lahusen, Thomas - MA, PhD
Livak, Leonid - BA, AM, PhD
Magocsi, Paul - BA, MA, MA, PhD, Fell Royal Society
  Canada
Mikhailova, Julia - AB, AM, AM, DPhil
Noyes, John - BA, MA, PhD
Orwin, Donna - PhD
Ostapchuk, Victor - BA, PhD
Penslar, Derek - BA, MA, 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
Soldovieri, Stefan - AB, AM, DPhil
Solecki, Samuel - BA, MA, PhD
Solomon, Peter - BA, MA, PhD
Solomon, Susan - BA, MA, PhD
Subtelny, Maria - BA, PhD
Tarnawsky, Maxim - BA, PhD
Trojanowska, Tamara - MA, 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
Jenkins, Jennifer - BA, MA, PhD
Klein, Edith - BA, MA, PhD
Korteweg, Anna - BA, MA, PhD
Light, Matthew - BA, MA, JD, PhD
Schatz, Edward - PhD
Schonberg, Michal - BA, MA, PhD
Smith, Alison - AM, PhD
Triadafilopoulos, Phil (Triadafilos) - BA, MA, 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

Graduate Department of Exercise Sciences
Faculty of Physical Education and Health
University of Toronto
55 Harbord Street
Toronto, Ontario M5S 2W6
Canada

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.
  - 0.5 FCE in exercise sciences from the student's area of study
  - 0.5 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
- 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.

Normal Program Length – 6 sessions (full-time); 12 sessions (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.
  o 0.5 FCE in exercise sciences from the student's area of study
  o 1.0 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
- 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.

Normal Program Length – 4 years (full-time); 6 years flexible-time

Course List
EXS 5502H   Aging and Functional Capacity: an Integrative Approach
EXS 5503H   Adaptations to Habitual Activity
EXS 5505H   Neuromotor Behaviour: Sensory Information Utilization During Goal-Directed Movements
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
Atkinson, Michael - BA, MA, 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
Welsh, Timothy - BPHE

Members Emeriti
Radomski, Manny - PhD
Shephard, Roy - BSc, BS, MB, MD, PhD

+ Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Associate Members

Amara, Catherine - BSc, MSc, PhD
Rhind, Shawn - BPHE, PhD
Sonnadara, Ranil - DPhil

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 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 FOR 3011H, FOR 1585H or another related field course appropriate to the program and 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.

Normal Program Length – 4 sessions (full-time)

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.

Normal Program Length – 3 sessions (full-time)

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.

Normal Program Length – 4 years (full-time); 5 years (direct-entry and transfer from master's)

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.

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 1288H Design and Manufacturing of Biomaterials
FOR 1294H Bioenergy and Biorefinery Technology
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
FOR 1555H Wildlife Ecology and Conservation
FOR 1570H Ecological Principles of Agroforestry
FOR 1575H Urban Forest Conservation
FOR 1585H Urban Forest Conservation Field Camp
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 Society and Forest Conservation
FOR 3011H International Forest Conservation Field Camp (Credit/No Credit)
FOR 3012H Analytical Methods in Forestry

+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.

Graduate Faculty

Full Members
Allen, D Grant - BASc, MASc, PhD
Carleton, Terence - BSc, MSc, PhD
Caspersen, John - BA, PhD
Cooper, Paul - BEd, BSc, MSc, PhD
Cowling, Sharon - BSc, MSc, PhD
Eckenwalder, James - BA, PhD
Fortin, Marie-Josee - MSc, PhD
Kant, Shashi - BE, MA, PhD
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, MASc, PhD
Sage, Rowan - PhD
Sain, Mohini - PhD
Smith, C.Tattersall - BA, MS, PhD
Smith, Sandy - BAgrSc, MSc, PhD *(Dean)*
Spelt, Jan - BASc, MASc, ME, PhD
Thomas, Sean - BA, PhD
Yan, Ning - BSc, PhD, Reg Professional Engineer *(Coordinator of Graduate Studies)*

Members Emeriti
Aird, Paul - BSc, MS, PhD
Balatinecz, John - BSF, MF, PhD
Blake, Terence - DIPFOR, BScF, STB, MF, PhD
Bryan, Rorke - BA, PhD
Hubbes, Martin - PhD
Nautiyal, Jagdish - BSc, MF, PhD
Roy, Dibyendu - BSc, MA, DPhil
Timmer, Victor - BScF, MScF, PhD

Associate Members
Bell, Frederick Wayne - BS, MSc
Bellocq, Isabel - BSc, MSc, PhD
Burgess, Darwin - BScF, PhD
Campbell, Malcolm - DPhil
Chen, Jiaxin - MASc, PhD
Cole, William - BScF, MScF, PhD
Colombo, Stephen - BScF, MScF, PhD
Couto, Laercio - PhD
Cui, Wenbin - MSc, PhD
de Groot, Peter - BScF, PhD
Drapeau, Pierre - BSc, MSc, PhD
Dumas, Michael - BSc, MScF, PhD
Feng, Martin W. - MSc
Flannigan, Mike - BSc, MS, PhD
Fleming, Richard - BSc, PhD
Gordon, Andrew - PhD
Heyd, Darrick V - BSc, PhD
Jones, Trevor A - BSc, MSc, PhD
Kayahara, Gordon John - MSc, PhD
Kenney, Andrew - BSc, MSc, PhD

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
Moola, Faisal - BSc, MSc, PhD
Morris, Dave - BScF, MSc, 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
Peng, Changhui - BSc, MSc, 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
Thompson, Ian D. - BSc, MSc, 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 Coordinator 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:
  - Students in **literature** take the graduate seminar in literature (FRE 1200Y) and
    - 3.0 full-course equivalents (FCE) from the regular graduate course offerings or
    - 2.5 FCE and the 0.5 FCE Research Essay FRE 5001H, a memoire of approximately 35 pages, or
    - 2.0 FCE and the 1.0 FCE Research Essay FRE 5000Y, a 65-75 page memoire.
  - Students in **linguistics** take the graduate seminars in linguistics (FRE 1103H, FRE 1104H, and FRE 1125H) and
    - 2.5 FCE from the regular graduate offerings or
    - 2.0 FCE and the 0.5 FCE Research Essay FRE 5001H, a memoire of approximately 35 pages or
    - 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.

Normal Program Length – 4 sessions (full-time); 5 sessions (part-time)

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, FRE 1125H, 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 4 full-course equivalents, with an average grade of at least an A-, by the end of the first year of the program and complete the remaining 3.5 full-course equivalents,

maintaining an average 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 first year of the program.
- 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 1125H Séminaire de linguistique III: Morphologie et sémantique
FRE 1128H Le français en contact
FRE 1136H Arguments, structures et représentations en français
JRL 1111H Second Language Acquisition of Romance Phonology

Linguistic and Literature Courses

FRE 1164H Initiation au français médiéval
FRE 1201H Méthodes de recherche (Credit/No Credit)
JIF 1000H Romance Philology I

Literature Courses

FRE 1200Y Séminaire de littérature
FRE 1614H Le roman aux XVIe et XVIIe siècles
FRE 1912H Sociabilités et socialités littéraires
FRE 1928H Zola et le naturalisme : du « roman expérimental » au « roman nouveau »
FRE 2007H Littérature et éthique : nouveaux textes, nouvelles problématiques
FRE 2042H Intertextualité
FRE 2103H La nouvelle québécoise contemporaine : l'émergence des voix féminines
FRE 3002H Pourquoi la poésie
JFC 1255H Aspects du structuralisme

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

°Courses which may continue over a program. The course is graded when completed.

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
Massam, Diane - BA, MA, PhD
Michelucci, Pascal - BA, MA, PhD *(Associate Chair & Coordinator of Graduate Studies)*
Motsch, Andreas - PhD
Ndayiragije, Juvenal - PhD
Nikiema, Emmanuel - 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
Cloutier-Wojciechowska, Cecile - BA, MA, LESL, DUP
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
Kushner, Eva - BA, MPH, PhD
McClelland, John Alan - PhD
Merrilees, Brian - PhD, Fell Royal Society Canada
Nesselroth, Peter - BA, MA, PhD
Perron, Paul - PhD
Shek, Ben-Zion - BA, MA, PhD
Smith, David - BA, PhD, PhD
Taylor, Robert - PhD
Tolton, Cameron - PhD
Wooldridge, Terence - BA, DDELUN

Associate Members

Ahmed, Maroussia - MA, LESL, DDELUN
Astington, John - BA, MA, PhD
Auger, Julie - BA, MA, PhD
Baudot, Alain - DipdESup, LESL
Berube, Georges - BA, MA, PhD
Cobb, Michael - BA, MA, AM, PhD
Cochelin, Isabelle - DipdESup, BA, MA, PhD

Crosta, Suzanne - BA, MA, PhD
Cuervo, Maria Cristina - PhD
Denoyelle, Corinne - BLitt, DLitt
Glinoer, Anthony - BA, MA, PhD
Heller, Monica - BA, MA, PhD
Holtz, Gregoire - MA, DLitt
Irvine, Margot - MA, PhD
Jennings, Eric - BA, PhD
Labrie, Normand - BA, MA, PhD
Liakin, Denis - BA, MA, PhD
Mavrikakis, Catherine - BA, MA, PhD
Nagy, Naomi - BA, PhD
Oberhuber, Andrea - MA, PhD
Perez-Leroux, Ana Teresa - MA, PhD
Pioffet, Marie-Christine - BLitt, MA, DLitt
Rosienski-Pellerin, Sylvie - BA, MA, MA, PhD
Roulston, Christine - BA, MA, PhD
Sarabia, Rosa - BA, PhD
Schallert, Joseph - PhD
Spada, Nina - BA, BA, MA
Speirs, Dorothy - BA, MA, PhD
Teixeira, Carlos - BA, AB, AM
Ten Kortenaar, Neil - PhD
Thomson, Clive - BA, MA, PhD

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
    • Planning, MScPl
3. **Community Development**
    • Community Planning, MScPl
4. **Diaspora and Transnational Studies**
    • Geography, MA, MSc, PhD
5. E**nvironment and Health**
    • Geography, MA, MSc, PhD
6. **Environmental Studies**
    • Geography, MA, MSc, PhD
    • Planning, MScPl
7. **Ethnic and Pluralism Studies**
    • Geography, MA, PhD
8. **International Relations**
    Geography, MA
9. **South Asian Studies**
    • Geography, MA, PhD
10. **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
*   Students are admitted under the general regulations of the School of Graduate Studies.
*   Appropriate 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.

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.
- **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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

Doctor of Philosophy

Minimum Admission Requirements

- Students are admitted under the general regulations of the School of Graduate Studies.
- 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 by direct-entry 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.

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:
  - 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.)
  - submit a research statement concerning the proposed PhD topic and the scope of the PhD examination by the end of April in Year I
  - pass a PhD examination in the general field in which research is being undertaken by the end of Year I
  - upon the recommendation of their committee, be required to acquire a knowledge of a foreign language necessary for their research
  - 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

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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
JPG 1421H Health in Urban Environments
JPG 1508H Planning for the Urban Poor in Developing Countries

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
JPG 1914H Spatial Information Systems
GGR 1921H Open Source Geographic Information Processing
GGR 1922H Topics in Geographical Information Science

° Courses which may continue over a program. The course is graded when completed.

Planning

Master of Science in Planning

Minimum Admission Requirements
- Students are admitted under the general regulations of the School of Graduate Studies.
- Appropriate 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.

Normal Program Length – 6 sessions (full-time); 12 sessions (part-time)

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.
- Visit the Planning Web site www.geog.utoronto.ca for more details.

Normal Program Length – 4 years (full-time PhD)

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 Planning Decision Methods I
PLA 1103H Legal Basis of Planning
PLA 1105H Planning Decision Methods II
PLA 1106H Workshop in Planning Practice
PLA 1107Y Current Issues Paper

Core Courses for PhD Planning
JPG 1111H Advanced Research Design (or a methods course in a related department subject to the approval of the supervisor)
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

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 Postmodernism
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:
  - **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.
  - **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.
  - **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.
- 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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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

Archontitsis, Georgios - BSc, MSc, DSCA
Basiliko, Nathan - PhD
Boland, Alana - BA, MA, PhD
Branfireun, Brian - BA, MSc, PhD
Buliung, 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
Daniere, Amrita - AB, PhD
Desloges, Joseph - BES, MSc, PhD

Desrochers, Pierre - AB, MA, PhD
Diamond, Miriam - MSc, MSc, PhD
DiFrancesco, Richard - PhD
Dunn, James - AB, AM, PhD
Farish, Matthew - BA, PhD
Finkelstein, Sarah - AB, MPH, PhD
Florida, Richard - BA, PhD
Friedmann, Harriet - AB, MA, PhD
Gertler, Meric - 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, Thembela - MS, PhD
Leslie, Deborah - BA, MA, PhD
Lewis, Robert - BA, MA, PhD
MacDonald, Ken - BA, MA, PhD
Maclaren, Virginia - BA, MRP, MSc, PhD
Malcolm, Jay - BSc, MSc, PhD
McGregor, Deborah - BSc, MES, PhD
Miller, Eric - BASc, MASc, PhD
Miron, John - BA, MA, MSc, PhD
Mitchell, Carl - 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
Siemiatycki, Matthew - BA, MSc, 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
Wilson, Kathleen - AB, AM, PhD

Members Emeriti

Bourne, Larry - BA, MA, PhD
Britton, John - BA, MA, PhD
Davis, Anthony - BA, MA, PhD
Gad, Gunter - DPhil, PhD
Galloway, John - BA, MA, PhD
Greenwood, Brian - BSc, PhD
Jaakson, Reiner - BA, MSc, PhD
Lemon, James - BA, BD, MS, PhD
Roweis, Shoukry - MSc, PhD
Simmons, James - BSc, MA, PhD
White, Rodney - BA, MSc, PhD
Whitney, Joseph - BA, PhD

Associate Members

Bedford, Paul - BA, MSc
Boyes, Donald - BS, MA, PhD
Brail, Shauna - BA, MA, PhD
Campsie, Philippa - BA, MSc
Etkin, Dave - BSc, BEd, MSc
Farrow, John - MBA
Feldman, Maryann - BA, MS, PhD
Goldhar, Mitchell - BA
Grima, Angelo - BA, MA, PhD
He, Yuhong - PhD
Isaac, Marney Elizabeth - BS, MES, PhD
Kumar, Kundan - BSc, MF
Labatt, Sonia - BA, MA, PhD
Makuch, Stan - LLB, BA, LLM
Murck, Barbara - AB, PhD
Poland, Blake - BA, PhD
Savan, Beth - BSc, PhD
Shakir-Raza, Uzma - MA
Shear, Harvey - PhD
Wilson, Dana - BES, MA, 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.

Normal Program Length – 6 sessions (full-time)

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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

+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
- 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).

Normal Program Length – 4 years (full-time PhD); 5 years (transfer from master's PhD)

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   Paleoecological 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 1465H   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
Brenan, James - BSc, PhD
Cowling, Sharon - BSc, MSc, PhD
Cruden, Alexander - BSc, PhD
Davis, Donald - BSc, MSc, PhD
Dittrich, Maria B. - BES, MSc, PhD
Eyles, Nicholas - BSc, MSc, PhD, DSc
Ferris, Grant - BSc, PhD
Ghent, Rebecca - BA, MSc, PhD
Gorton, Michael - BSc, BSc, PhD
Halfar, Jochen - PhD
Halls, Henry - BSc, MSc, PhD
Hamilton, Michael - BSc, PhD
Head, Martin - BSc
Henderson, Grant - PhD
Howard, Kenneth - BSc, MSc, PhD
Miall, Andrew - BSc, PhD
Milkereit, Bernd - DrRerNat
Mungall, James - BSc, MSc, PhD
Pysklywec, Russell - BSc, MSc, PhD *(Interim Chair & Graduate Chair)*
Schoenbohm, Lindsay - PhD
Schulze, Daniel - PhD
Sherwood Lollar, Barbara - PhD
Simpson, Myrna - BS, DPhil
Spooner, Edward - BA, PhD *(Associate Chair)*
Srinivasan, Gopalan - BSc, MSc, PhD
Wells, Mathew - BS, DPhil

Wicks, Frederick - PhD
Wortmann, Ulrich - BSc, MSc, PhD
Young, R. Paul - BSc, MSc, PhD, CE

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, Walfried - DIPLGEOL, BSc, DrRerNat
Scott, Steven - BSc, MSc, PhD
Von Bitter, Peter - PhD
Westgate, John - PhD

Associate Members

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. **Diaspora and Transnational Studies**
   - Germanic Languages and Literatures, MA, PhD
2. **Jewish Studies**
   - Germanic Languages and Literatures, MA, PhD
3. **Women and Gender Studies**
   - Germanic Languages and Literatures, MA, 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.

Normal Program Length – 2 sessions (full-time); 5 sessions (part-time)

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
  - 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
  - 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:
  - give evidence of reading knowledge of French, or, in exceptional circumstances, of another language approved by the Department.
  - pass a general examination in German literature.
  - pass a thesis field review.
  - make an oral presentation of their thesis.
  - 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).

Normal Program Length – 4 years (full-time PhD, although some students may take longer); 5 years (direct-entry PhD)

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 1400H Soviet and Kosher: Jewish Popular Culture in the Soviet Union, 1917 – 1991
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 1665H Modernism and the Other
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 Cinemas 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
Soldovieri, Stefan - AB, AM, DPhil

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
Saas, Christa - BA, MA, PhD
Seliger, Helfried - PhD
Wetzel, Heinz - DPhil

Associate Members
Retallack, James - BA, DPhil

Global Affairs

Faculty Affiliation
Arts and Science

Degree Programs Offered
Global Affairs – MGA, Combined JD/MGA

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 requires that students learn about each area – and about the inter-connections between 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: www.globalaffairs.utoronto.ca
E-mail: mga@utoronto.ca
Telephone: (416) 946-8917
Fax: (416) 946-8915

School of Global Affairs
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 1001H *International Economics* 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).

Normal Program Length – 6 sessions (full-time)

Course List

First-Year Core Courses (required)
GLA 1000Y Introduction to the Development of the Global System
GLA 1001H International Economics
GLA 1002H Global Civil Society
GLA 1003H Global Security
GLA 1004H Global Policy Analysis
GLA 1005H Decision Making and Strategic Thinking in the Global System
GLA 1006H Public International Law
GLA 1007H Global Internship

Combined Juris Doctor/Master of Global Affairs
The Combined Juris Doctor/Master of Global Affairs is designed for students interested in studying the intersections of law and global affairs. The combined program permits the completion of both degrees in four years rather than the five 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/MGA program. Students are registered in the Faculty of Law in Year 1 of the program, the School of Global Affairs for Year 2 of the program, and in both for Years 3 and 4.

Minimum Admission Requirements
- Each student in the Program shall meet the respective admission requirements of both the Faculty of Law JD program and Master of Global Affairs program. Students may be admitted to the Combined

Program either at the time of their first application or they can apply to the MGA program during their first year of their JD studies. However, whether admitted at the outset or after the first year of the JD program, all students will register in the School of Global Affairs only after their first year in the JD program.

Program Requirements
Year 1 – full-time Faculty of Law
Year 2 – full-time in School of Global Affairs
    Summer between years 2 and 3; full-time in School of Global Affairs
Year 3 – full-time Faculty of Law and part-time in the School of Global Affairs
Year 4 – full-time Faculty of Law and part-time in the School of Global Affairs

Within this combined four-year program, students must:
- register and complete the first year of the JD program with at least a B standing.
- complete the GLA 1000-level core courses (with the exception of GLA 1006H *Public International Law* which is substituted with LAW 252H) with at least a B+ standing.
- complete a summer internship following the completion of the GLA 1000-level courses, worth 0.5 FCE (GLA 1007H).
- complete a further 3.5 full-course equivalents (FCE) at the 2000-level from the School of Global Affairs or graduate-level courses approved by the Director of the MGA (including the capstone seminar), and 41-45 credits from the Faculty of Law, including LAW 252H *Public International Law* (in addition to the JD requirements to complete a Moot, a Perspective course, and the Supervised Upper Year Research Program). At least 9 of the 41-45 credits must be in the area of international law, which could include the following courses:
  a. International Environmental Law (LAW 225H)
  b. Law, Institutions, and Development (LAW 278H)
  c. International Trade Regulation (LAW 285H)
  d. International Human Rights Law (LAW 294H)

Graduate Faculty

Full Members
Bernstein, Steven - PhD
Bertoldi, Nancy - BA, MA, PhD
Brunnee, Jutta - LLM, SJD
Cameron, David - PhD, Fell Royal Society Canada
 (Graduate Chair)
Deibert, Ronald - BA, MA, DRRERPOL
Duranton, Gilles - BSC, MSC, MA, PhD
Friedmann, Harriet - AB, MA, PhD
Hoffmann, Matthew - BSC, PhD
Kirton, John - BA, MA, PhD
Nevitte, Neil - BA, MA, PhD, Fell Royal Society Canada
Pauly, Louis - BA, MA, MSC, MSC, PhD, Canada

Research Chair
Pruessen, Ronald - BA, MA, PhD
Vipond, Robert - BA, MA, AM, PhD
Wark, Wesley - BA, BA, MA, PhD
Wolfe, David - BA, MA, PhD
Wong, Joseph - BA, MA, PhD, Canada Research Chair

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

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/mmi
E-mail: mmi.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, and preferably two, additional graduate faculty members) 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 (HAD 5308H, HAD 5730H, HAD 5760H, HAD 5763H, HAD 5727H and HAD 5304H) and participate in two non-credit seminars. The courses in this field are offered in a modular fashion.
- 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.

Normal Program Length – 6 sessions (full-time) over two years; 8 sessions (part-time).

Doctor of Philosophy

Minimum Admission Requirements
- A master's degree (MA or MSc) requiring a thesis with a B+ average or higher.
- Applicants to the Clinical Epidemiology and Health Care Research field must have a degree in a health profession (e.g., MD, BScN, BScOT, BScPT, DDM, MScN, or equivalent).
- Satisfactory references pertaining to the applicant's academic and research abilities.
- Outstanding students with a non-thesis master's degree may be admitted to the 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. Students enrolled in the **Clinical Epidemiology and Health Care Research Field** must select: 2.0 FCE compulsory courses and 2.0 recommended FCE from the Clinical Epidemiology and Health Care Research Courses listed below.
- Writing of a PhD thesis under the supervision of an approved thesis committee (supervisor plus at least two additional graduate faculty members).
- Oral defence of the thesis before an examination committee.
- 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 students with career obligations. The degree requirements for the flexible-time PhD program are identical to those listed above for the full-time PhD program. Students are required to register full time for the first four years of their program; thereafter, they may register part time.

Normal Program Length – 4 years (full-time PhD); 5-6 years (flexible-time PhD)

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
HAD 5305H   Evidence-Based Guidelines
HAD 5306H   Introduction to Health Services Research and the Use of Health 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 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 5312H   Decision Modelling for 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 5315H   Advanced Topics in Measurement
HAD 6360H   Required Research Practicum in Clinical Epidemiology (Credit/No Credit)
HAD 6361H   Optional Research Practicum in Clinical Epidemiology (Credit/No Credit)
HAD 7002H   Reading Course

Other HPME courses or extra departmental courses may be considered as elective courses and are subject to approval of the department.

° Courses which may continue over a program. The course is graded when completed.

Field – Health Services Research

HAD 5011H Canada's Health Care System (Doctoral Stream)
HAD 5726H Design and Evaluation in eHealth Innovation and Information
HAD 5727H Knowledge Transfer and Exchange
HAD 5728H Performance Measurement in Health Care: Theory and Application
HAD 5729H Theoretical, Conceptual and Methodological Issues in Knowledge Translation
HAD 5730H Economic Evaluation Methods for Health Service Research
HAD 5734H Organizational Learning and Knowledge Transfer
HAD 5737H Tools for Implementation of Best Evidence
HAD 5738H Advanced Methods in Economic Evaluation
HAD 5760H Advanced Health Economics and Policy Analysis
HAD 5763H Advanced Methods in Health Services Research
HAD 5768H International Perspectives on Health Services Management
HAD 5771H Resource Allocation Ethics
HAD 5772H Intermediate Statistics for Health Services Researchers
HAD 5773H Introduction to Theories of Organizational Behaviour and Applications to the Health Care Sector
HAD 5776H Issues in Qualitative Health Services Research Methodologies and Methods
HAD 5780H Program Planning and Evaluation for Research Stream Students
HAD 6760Y Introduction to Health Services Research Theory and Methods
HAD 6761H Health Services Outcomes and Evaluation Comprehensive Course
HAD 6762H Health Services Organization and Management Comprehensive Course
HAD 6763H Health Policy Comprehensive Course
HAD 6764H eHealth Innovation and Health Information Management Comprehensive Course
JNH 5001H Health Care Settings, Site and Human Well Being
JNH 5003H Home and Community Care Knowledge Translation
HAD 7001H Reading Course

Cross-listed Courses

These courses are limited to certain program students in Health Policy, Management and Evaluation. Please check the Web site www.hpme.utoronto.ca.

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
HSR 1002H Health Services and Policy Research Summer Institute

JCV 3060H Advanced Topics in Cardiovascular Sciences—Molecular Biology and Heart Signal Transduction
JCV 3061H Advanced Topics in Cardiovascular Sciences—Hormones
JCV 3062H Advanced Topics in Cardiovascular Sciences—Heart Function
JCV 3063H Advanced Topics in Cardiovascular Sciences—Vascular
JHM 1000H Issue Analysis in Interdisciplinary, International Health Research
LAW 465H Conflicts of Interest in Medicine: Evidence, Public Policy, and the Law
LAW 404H Health System Law and Policy

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.

Normal Program Length – 6 sessions (full-time)

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
HAD 5711H Theory and Practice of Strategic Planning and Management in Health Services Organization
HAD 5713H Introduction to Health Information Systems

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.
  - 2.5-year program for students with a Bachelor in Social Work degree
- Further details available on the Web site at www.hpme.utoronto.ca/about/pp/combined/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.

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 speciality 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.

Normal Program Length – 4 sessions (full-time)

Course List

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
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 electives (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.

Normal Program Length – 3 sessions (full-time)

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.

Graduate Faculty

Full Members

Anderson, Geoff - MD
Baker, G. Ross - AB, MA, PhD
Barnsley, Janet M - BSc, MSc, PhD
Bayoumi, AhMEd - MD
Beaton, Dorcas - BSc(OT), MSc, PhD
Bierman, Arlene - MS, MD
Bombardier, Claire - MA, MD
Bull, Shelley - BMath, MMath, 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
Corey, Mary - BSc, PhD
Coyte, Peter C - BA, MA, PhD
Culyer, Tony - BA
Davis, Aileen - BSc(PT), MSc, PhD
Davis, David - BA, MD
Deber, Raisa - BS, MS, PhD
Detsky, Allan - BS, MD, PhD
Einarson, Thomas - BScPhm, MSc, MPharm, MEd, PhD
Etchells, Edward - MSc, MD
Eysenbach, Gunther - MD
Feldman, Brian - MD
Flood, Colleen - LLB, LLM, SJD
Fortin, Paul - MPH, MD
Fremes, Stephen - BA, 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
Grunfeld, Eva - MD, PhD
Hannah, Mary - BSc, MDCM, MS
Hawker, Gillian - MD
Hogg-Johnson, Sheilah - BMath, MMath, PhD
Holness, D Linn - MHSc, MD
Jadad, Alejandro - MD, DPhil
Jaglal, Susan - BSc, MSc, PhD
Krahn, Murray - BA, MSc, MD
Laporte, Audrey - BA, MA, 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

Martin, Douglas - BSc, PhD
McCrindle, Brian - MD
McGeer, Allison - BSc, MSc, MD
Mclaughlin, John Ross - BSc, MSc, PhD
McLeod, Robin - BSc, LMCC, MD
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
Rabeneck, Linda - MD
Redelmeier, Donald - MS, MD
Reeves, Scott - BSc, MSc
Rochon, Paula - MD
Sass-Kortsak, Andrea - BSc, MHSc, PhD
Stukel, Therese - BS, PhD
Talbot, Yves - BA, MD
To, Teresa - BA, MA, PhD
Tomlinson, George - PhD
Tu, Jack Ven - MD, PhD
Upshur, Ross Edward - BSc, BA, MA, MD
Wasylenki, Donald - BA, MD
Williams, Paul - PhD
Wodchis, Walter - MA, PhD
Wright, James - BA, LMCC, CSPO, MPH, MD
Young, Lionel Trevor - MD, PhD
Zwarenstein, Merrick - MPH, MMEd, MBChB

Members Emeriti

Bliss, J Michael - BA, MA, PhD
Dickens, Bernard - LLB, LLM, PhD
Hastings, John Ef - DPH, MD
Vayda, Eugene - BS, MD, MBChB, DrMed

Associate Members

Alibhai, Shabbir - MD
Allen, Upton - MSc, MSc, MBBS
Ammendolia, Carlo - MEdScD
Ashbury, Fredrick D - BA, MA, PhD
Austin, Peter - PhD
Baranek, Patricia - BS, MA, MA, PhD, PhD
Barbera, Lisa - MD
Baxter, Nancy - DrMed, PhD
Bell, Chaim - MD
Berger, Howard - BSc, MD
Berta, Whitney - BS, MBA, PhD
Beyene, Joseph - BSc, MSc, PhD
Bezjak, Andrea - MS, MDCM
Bhattacharyya, Onil - MD
Birken, Catherine - MD
Boehm, Leslie A - BA, MA, MA
Bohnen, John - LMCC, MD
Boon, Heather - PhD
Booth, Gillian - MD
Booth, Richard - MSN
Bronskill, Susan - MSc
Brown, Adalsteinn - AB, PhD
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
Cheung, Angela - BA, MD, PhD
Choudhry, Sujit - LLB, LLM
Cina, Claudio - MSc, DrMed
Coburn, Natalie - BSc, MSc, DrMed
Corbin, Ruth Mw - BSc, MSc, PhD
Dewa, Carolyn - BA, MPH, PhD
Dhalla, Irfan - BAA, MD
Dick, Paul - MDCM
Dobrow, Mark - PhD
Donnelly, Sandra - BSc, MSc, MDCM
Easson, Alexandra - MSc, MD
Fehlings, Darcy - MD
Feig, Denice - MD
Fisman, David - MPH, MD
Fowler, Robert - MDCM
Gagliardi, Anna - BSc, BE, MSc, MLS, PhD
Gamble, Paul - BSc, BA, MHSA
Gibson, Jennifer - PhD
Glouberman, Sholom - PhD
Gnam, William - MD
Guerriere, Denise - PhD
Gunz, Hugh - DPhil, PhD
Guttman, Mark - MD
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, RN
Jackevicius, Cynthia - BS, MSc
Jacobson, Nora - PhD
Jamal, Abida - MD, PhD
Jassal, Sarbjit Vanita - MD
Juurlink, David - BSc, MD, PhD
Kapral, Moira - MD
Karkouti, Keyvan - MD
Kennedy, Erin - CSPO, MD, PhD
Khan, Kamran - MPH, MD
Ko, Dennis - MD
Kreder, Hans - MPH, MD
Kreiger, Nancy - BA, MPH, PhD
Kulkarni, Abhaya - BSc, MD, PhD
Kuper, Ayelet - AB, MEd, MD, PhD
Landry, Michel - BSc(PT), MSc(PT), 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
Macfarlane, P Dianne - BA
MacIntosh-Murray, Anu - BA, LLB, MPH
MahoMEd, Nizar - MPH, MD, ScD
Malach, Faith - MHSA
Marshall, Debra - AA
Matlow, Anne - MSc, MD, MD
Mcgowan, Thomas - MBA, MD

Mitchell, Leslie - MSc
Moore, Aideen - MBChB
Moore, Lynn - MHSA
Morrison, Laurie - BSc
Murphy, Kellie - MD
Murray, Michael A - BA, MA, PhD
Naimark, David - MD
Nam, Robert - MSc, MD
Nauenberg, Eric - AB, MPH, PhD
Nestman, Lawrence - BComm, MHSA
O'Connor, Paul - MD
Oliver, Matthew - MD
Pain, Clare - BSc, MSc, MD
Palda, Valerie - MD
Paszat, Lawrence - MS, MD
Paterson, Michael - MS
Philippon, Donald - MD
Pritchard, Kathleen - BA, MD
Pron, Gaylene - BSc, MSc, PhD
Rachlis, Michael - MSc, MD
Rakovitch, Eileen - MD
Rath, Darlyne - MSc
Ray, Joel - MSc, MD
Ringash, Jolie - MSc, MD
Sale, Joanna
Saposnik, Gustavo - MSc, MD
Sawka, Anna - MD
Sawka, Carol - MD
Schull, Michael - MD
Scolnik, Dennis - MBChB
Shachak, Aviv - DPhil
Shah, Prakeshkumar - MD
Shah, Vibhuti - MD
Sharkey, Shirlee - BA, BSN, MHSc
Shojania, Kaveh - BSc, MD
Singer, Lianne - MD
Smith, Tina - BSc, MHSc
Sridharan, Sanjeev
Stanbrook, Matthew - MSc, MD
Steinhart, A. Hillary - MD
Straus, Sharon Elizabeth - MSc, MD
Sullivan, Terrence - BS, MA, PhD
Sung, Lillian - MD
Szold, John - MBA
Teare, Gary - MSc, DrMedVET, PhD
Tinmouth, Jill - MD, PhD
Tolomiczenko, George - PhD
Tombak, Mihkel - BS, MBA, AM, PhD
Ungar, Wendy - BA, MSc, PhD
Urbach, David - MSc, MD
Verma, Sunil - MD
Wales, Paul - BSc, MSc, MD
Walmsley, Sharon - BSc, MSc, MD
Wei, Alice - BSc, MSc, MSc, MD
Whyte, Hilary - MBChB
Wiljer, David - PhD
Willison, Donald - MSc, MSc, ScD
Windrim, Rory - MB
Wobeser, Wendy - MSc, DrMed
Wong, Rebecca - MBChB
Wright, Frances - BSc, LMCC, MEd, MD
Young, Nancy - BSc(PT), MSc

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. **Diaspora and Transnational Studies**
   - History, MA, PhD
4. **Editing Medieval Texts**
   - History, PhD
5. **Ethnic and Pluralism Studies**
   - History, MA, PhD
6. **International Relations**
   - History, MA
7. **Jewish Studies**
   - History, MA, PhD
8. **Sexual Diversity Studies**
   - History, MA, PhD
9. **South Asian Studies**
   - History, MA, PhD
10. **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:
  - Paper-based TOEFL exam: 600 with 5 on the Test of Written English
  - 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
- 2.5 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 Associate Chair, Graduate.
- 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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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
  - 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**: 4.5 FCE, one of which must 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 Associate Chair, Graduate 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 Associate Chair, Graduate. The Department's Web site 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. The thesis must be presented within six years of first enrolment in the PhD program.

- **Time to Completion.** The thesis must be presented within six years of first enrolment in the PhD program.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 1109H   Readings in Canadian History
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 1142Y   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 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   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
HIS 1291H   Topics in Russian and Soviet Social History (joint graduate/undergraduate)
HIS 1292H   The Russian Revolution (joint graduate/undergraduate)
HIS 1293Y   Kievan Rus' (joint graduate/undergraduate)
HIS 1294H   In the Soviet Archives: Text and History (joint graduate/undergraduate)
HIS 1295H   Soviet History Seminar
HIS 1296H   Stalinism and After: Beyond Cold War History
HIS 1297H   Problems of National Survival in Eastern Europe Since 1848 (joint graduate/undergraduate)
HIS 1299H   Topics in Russian Intellectual History
HIS 1411H   Theory and Practice in Early Modern British History
HIS 1425H   British Social Realism and Cinema
HIS 1435H   Studies in Victorian Society
HIS 1440H   Irish Nationalism in Canada and the United States (joint graduate/undergraduate)
HIS 1519H   Thinking of Diversity: Historical Perspectives on American and Canadian Pluralisms
HIS 1522H   Topics in Twentieth-Century U.S. History: Transnational Commodity Culture
HIS 1524H   Topics in the History of Black America
HIS 1530H   Readings in Twentieth Century American Foreign Policy
HIS 1531H   American Political History Since 1877
HIS 1532H   American Foreign Policy in the Cold War
HIS 1533H   Gender and International Relations (joint graduate/undergraduate)
HIS 1535H   Readings in International Relations History
HIS 1538H   Reading in U.S. History
HIS 1539H   Film Comedy and Popular Culture
HIS 1540H   Cultures of American Capitalism
HIS 1543H   Topics in Material Culture
HIS 1545H   Race, Segregation and Protest: South Africa and the United States
HIS 1550H   Atlantic Labour Migrations
HIS 1555H   Gender and Slavery in the Atlantic World, Seventeenth to Nineteenth Century
HIS 1630H   Appeasement
HIS 1632H   International Relations Field Seminar
HIS 1637H   Culture and the Cold War (joint graduate/undergraduate)
HIS 1663H   Gender in East and Southeast Asia
HIS 1664H   Religion and Society in Southeast Asia
HIS 1665H   Gender and History in Colonial South Asia
HIS 1667H   Transnational Gender Histories
HIS 1668H   Topics in Early Modern Asian History
HIS 1673H   Critical Historiography of Late Imperial and Modern China
HIS 1675H   Imperial Circulation and Diasporic Flows in the British Empire
HIS 1677H   Empire and Nation in Modern East Asia

HIS 1678H   War and Memory in Twentieth-Century East Asia
HIS 1701H   Religion, Society and Empire in the Colonial Spanish Americas, 1492-1800
HIS 1704H   Latin America in the Age of Independence
HIS 1705H   Africa: Writing, Colonialism and Memory
HIS 1706H   Decolonizing Research Methodologies
HIS 1707H   Topics in African History
HIS 1708H   Labour in the Age of Imperialism
HIS 1709H   Conversion and Christianities in the Early Modern Spanish World(joint graduate/undergraduate)
HIS 1710H   Comparative Slavery in the Caribbean and Latin America
HIS 1784H   The Islamic Revolution
HIS 1997H   The Practice of History (Credit/No Credit)
HIS 1998H,Y   Reading Course
HIS 1999H,Y   Reading Course
HIS 2000Y°   Directed Research
JBP 2230H   Topics in International Politics
JHP 1289Y   Twentieth Century Ukraine (joint graduate/undergraduate)
JHP 1631H   Intelligence and International Relations
JHP 2231H   The History and Philosophy of International Relations Thought
JHP 2301Y   Linguistic and Cultural Minorities in Europe (joint graduate/undergraduate)

Courses in Other Departments Taught by History Faculty
COL 5027H   Memory, Trauma, and History
COL 5044H   A Journey from Petersburg to Los Angeles
MST 1110H   Diplomatics 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 Associate Chair, Graduate. 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

° Courses which may continue over a program. The course is graded when completed.

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, PhD
Chin, Carol - BA, MA, PhD
Cochelin, Isabelle - DipdESup, BA, 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
Kivimae, 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, MA, PhD, Fell Royal Society Canada
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
Radforth, 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
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, 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, Fell Royal Society Canada, Fell Ryl Historical Societ
Berger, Carl - BA, MA, PhD
Berman, William - BA, MA, PhD
Bliss, J Michael - BA, MA, PhD
Brown, Robert Craig - 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, 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, Narendra - 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, letters of reference, and a writing sample of no more than 3,000 words. Application deadline is February 1. Applicants who wish to take one or more of the courses offered by the Institute as non-degree students should apply for admission as Special Students. The application procedures are the same as for those of the MA program, but the deadline for applications is May 1.

Contact and Address
Web: www.hps.utoronto.ca/
E-mail: ihpst.info@utoronto.ca
Telephone: (416) 978-5397
Fax: (416) 978-3003

Institute for the History and Philosophy of Science and Technology
University of Toronto
Old Victoria College
Room 316, 91 Charles Street West
Toronto, Ontario M5S 1K7
Canada

Degree Programs

History and Philosophy of Science and Technology

Master of Arts

Minimum Admission Requirements
- 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 of at least B+ in the final two years of undergraduate work. While the majority of accepted students exceed this standard, the very broad scope of the field and the variety of fruitful approaches to it also imply that many different backgrounds are appropriate. Accordingly, grades are only one criterion 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:
  - Paper-based TOEFL: 580 and 5 on the TWE
  - Internet-based TOEFL: 93/120 and 22/30 on the writing and speaking sections

Program Requirements
- 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)
- 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.

Normal Program Length – 3 sessions (full-time); 15 sessions (part-time)

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:
  - Paper-based TOEFL: 580 and 5 on the TWE
  - 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 1036H	History of Engineering
HPS 1037H	Science in Canadian History
HPS 1038H	Topics in the History of Chemistry, 1600-1950
HPS 1041H	History of Medical Microbiology
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 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 Medicine
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 1113H	Topics in the History of the Social & Behavioural Sciences
HPS 1214H	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
HPS 5012H	Fundamentals of the History of Psychology
HPS 5013H	Fundamentals of the History and Philosophy of the Social Sciences
HPS 5014H	Fundamentals of the Philosophy of Biology
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 1001H	Introduction to Book History
BKS 1002H	Book History in Practice
BKS 2000H	Advanced Seminar 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.

+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
(C&T courses offered only if there is sufficient enrolment)
C&T 1004H   Communications in History, Theory, Technology

Philosophy
PHL 2010H Late Greek Philosophy: Plotinus
PHL 2096H Seminar in Analytic Philosophy: Early Analytic Philosophy
PHL 2131H Ethics
PHL 2132H Seminar in Ethics
PHL 2133H Topics in Ethics: Theories of the Good
PHL 2145H Bioethics
PHL 2051H The Rationalists: Spinoza's Metaphysics
PHL 2171H Philosophy of Mind: Embodied and Extended Mind Theories
PHL 2172H Seminar in Philosophy of Mind: Conscious Life
PHL 2190H Philosophy of Language
PHL 2191H Seminar in the Philosophy of Language: Contextualism
PHL 2196H Topics in the Philosophy of Science
PHL 2199H Seminar in Philosophy of Science

Solovey, Mark - BA, BA, MA, AM, MA, MA, PhD, PhD
Stefanovic, Ingrid - BA, MA, PhD
Thompson, Paul - BA, MA, 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
De Sousa, Ronald - BA, PhD
Goldstick, Daniel - BA, BPhil, DPhil
Gotlieb, Calvin Carl - BA, MA, PhD
Levere, Trevor - BA, MA, DPhil
Mazumdar, Pauline - MSc, MD, PhD
Winsor, Mary - AB, MPH, PhD

Graduate Faculty

Full Members
Baigrie, 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 *(Director)*
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, Fell Royal Society Canada
Krementsov, 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

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. **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 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 (OISE)
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 (JK - Grade 6). For students who choose research course electives and undertake an optional qualifying research paper (QRP), the program also provides the possibility of further graduate study.

Core ICS faculty teach the majority of program courses. Laboratory School teachers supervise practicum placements and internships in their classrooms, making direct links between research and practice. (Teachers in the public and private schools also mentor students' practicum placements/internships.) Other graduate faculty in the Department of Human Development and Applied Psychology teach elective courses; students in the CSE program thus profit from participating in a research-oriented department.

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, Reporting and Research*
  - 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*

- o HDP 2212H *Theory and Curriculum II: Mathematics*
- o HDP 2214H *Introduction to Curriculum II: Special Areas*
- o 0.5 elective FCE
- o 3.5 month full-time internship (HDP 2221Y: *Advanced Teaching Practicum*) to be taken in one session.
- During the internship session of Year 2, students are required to take HDP 2202H *Childhood Education Seminar II: Advanced Teaching*, and another 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 CSE students are listed in the Human Development and Applied Psychology Program Guidelines.
- Students who wish to qualify for a condensed version of OISE's Special Education Part 1 Additional Qualifications (AQ) course must meet course work and practicum requirements.
- 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.

Normal Program Length – 6 sessions

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

- 3.0 full-course equivalents (FCE) plus a thesis. Courses should be chosen in consultation with the advisor.
  - o HDP 1209H Research Methods and Thesis Preparation in Human Development and Applied Psychology.
  - o HDP 1288H Intermediate Statistics and Research Design.
  - o HDP 2252H Individual Reading and Research in Human Development and Applied Psychology: Master's Level.
  - o Additional courses from the MA required courses listed in the Departmental Guidelines menu.
  - o Students who have not had a previous course in human development are required to take HDP 1201H Child and Adolescent Development or an equivalent.
  - o 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.

Normal Program Length – 3 sessions (full-time)

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.
- 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**
  - o HDP 1200H Foundations of Human Development and Education
  - o 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
Full-time PhD
- 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 thesis 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.

Flexible-time PhD
- 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 should demonstrate that they are active professionals engaged in activities relevant to their proposed program of study. See the OISE Bulletin for more information.

Program Requirements
- Degree requirements for full-time and flexible-time PhD 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.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

School and Clinical Child Psychology

The School and Clinical Child Psychology program (SCCP) is a Canadian Psychological Association (CPA) 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 curriculum of the SCCP Program is designed to establish a strong foundation of core knowledge and skills early in the program, with students free to specialize later on. The program reflects a mix of courses and training opportunities.

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

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.
  - HDP 1215H *Psychological Assessment of School-Aged Children*
  - 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. (Note: Students who have a 1.0 FCE in cognitive/affective bases of behaviour at the undergraduate level approved by the program may substitute an elective course for this requirement.)
- o 0.5 elective FCE.
- o A listing of approved cognitive/affective bases of behaviour courses is available on the department Web site 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.

Normal Program Length – 6 sessions (full-time)

Doctor of Philosophy

Minimum Admission Requirements
Full-time PhD
- Normally a four-year bachelor's degree in Psychology or its equivalent and a University of Toronto 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 University of Toronto MA in School and Clinical Child Psychology, the student will be required to take additional courses to receive equivalent training.

Flexible-time PhD
- 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 should demonstrate that they are active professionals engaged in activities relevant to their proposed program of study. See the OISE Bulletin for more information.

Program Requirements
- 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* (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 1 FCE from the Instructional Interventions menu.
- o 0.5 FCE from each of the following menus (for a total of 1.5 FCE): Psychosocial Interventions, Social Bases of Behaviour, and Biological Bases of Behaviour. Note: Students who have a 1.0 FCE in Social Bases of Behaviour at the undergraduate level approved by the program may substitute an elective course for this requirement. Students who have a 1.0 FCE in Biological Bases of Behaviour at the undergraduate level approved by the program may substitute an elective course for this requirement. A listing of courses in these menus is available on the department Web site 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 HDP 3241H 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.

Normal Program Length – 4 years (full-time PhD)

Course List

HDP 1200H Foundations of Human Development and Education
HDP 1201H Child and Adolescent Development
HDP 1209H Research Methods and Thesis Preparation in Human Development and Applied Psychology
HDP 1211H Psychological Foundations of Early Development and Education
HDP 1215H Psychological Assessment of School-Aged Children
HDP 1216H Psychoeducational Assessment
HDP 1217H Foundations of Proactive Behavioural and Cognitive-Behavioural Intervention with Children
HDP 1218H[+] Seminar and Practicum in Assessment
HDP 1219H Ethical Issues in Applied Psychology
HDP 1220H Introduction to School and Clinical Child Psychology
HDP 1234H Foundations of Cognitive Science
HDP 1236H Developmental Psychopathology
HDP 1237H Cognitive Development and Learning
HDP 1238H Special Topics in Human Development and Applied Psychology
HDP 1241H Outcomes of Early Education and Child Care
HDP 1256H Child Abuse: Intervention and Prevention
HDP 1259H Family Relationships with Early Childhood Services and Schools
HDP 1260H Children, Psychology and the Law
HDP 1265H Advanced Topics in Social and Personality Development
HDP 1272H Play and Education
HDP 1279H Preventative Interventions for Children at Risk
HDP 1284H Psychology and Education of Children and Adolescents with Behaviour Disorders
HDP 1285H Psychology and Education of Children with Learning Disabilities
HDP 1287H Introduction to Applied Statistics
HDP 1288H Intermediate Statistics and Research Design
HDP 1289H Multivariate Analysis with Applications
HDP 1290H Causal Inference Methods for Quasi-Experimental Data
HDP 1291H Structural Equation Modeling

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

HDP 1292H Instrument Design and Analysis
HDP 1293H Applied Research Design and Data Analysis
HDP 1299H Language Acquisition and Development
HDP 2200Y Child Study: Observation, Evaluation, Reporting, and Research
HDP 2201H Childhood Education Seminar
HDP 2202H Childhood Education Seminar II: Advanced Teaching
HDP 2210Y Introduction to Curriculum I: Core Areas
HDP 2211H Theory and Curriculum I: Language and Literacy
HDP 2212H Theory and Curriculum II: Mathematics
HDP 2214H Introduction to Curriculum ll: Special Areas
HDP 2220H Teaching Practicum
HDP 2221Y   Advanced Teaching Practicum
HDP 2275H Technology for Adaptive Instruction and Special Education
HDP 2280H Introduction to Special Education and Adaptive Instruction
HDP 2283H Psychology and Education of Gifted Children and Adolescents
HDP 2287H Classroom-Based Counselling Approaches
HDP 2288H Reflective Teaching and Analysis of Instruction
HDP 2292H Assessment for Instruction
HDP 2293H Interpretation of Educational Research
HDP 2296H Reading and Writing Difficulties
HDP 3200H Research Proseminar in Human Development and Applied Psychology
HDP 3201H Qualitative Research Methods in Human Development and Applied Psychology
HDP 3203H Children's Theory of Mind
HDP 3204H Contemporary History and Systems in Human Development and Applied Psychology
HDP 3205H Social and Moral Development
HDP 3208H Adolescence
HDP 3209H Psychology of Language and Literacy
HDP 3221H Cross-Cultural Perspectives on Children's Problems
HDP 3222Y Approaches to Psychotherapy Across the Lifespan
HDP 3224H Advanced Proactive Behavioural and Cognitive-Behavioural Interventions
HDP 3225H Developmental Trajectories and High Risk Environments
HDP 3226H Research Methods and Doctoral Thesis Preparation in Human Development and Applied Psychology
HDP 3227H Multi-Level Modelling in Social Scientific and Educational Research
HDP 3229H Cognition and Emotion in Development
HDP 3230H Understanding Narrative
HDP 3231H Psychodynamic Bases of Therapy
HDP 3238H Special Topics in Human Development and Applied Psychology
HDP 3240H Advanced Social and Emotional Assessment Techniques
HDP 3241H[+] Seminar and Practicum in Assessment and Intervention with Children

HDP 3242Y°	Internship in School and Clinical Child Psychology
HDP 3255H	Systemic Family Therapy
HDP 3282H	The Psychology of Critical Thinking
HDP 3286H	Developmental Neurobiology
HDP 3292H	Advanced Psychoeducational Assessment and Psychodiagnosis
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 5284Y	Assessment and Intervention in Multicultural/Bilingual Contexts
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
Astington, Janet - BSc, BA, MA, PhD
Barrera, Maria - MA, PhD
Biemiller (Jr), Andrew - BA, MS, PhD
Chen, Xi (Becky) - BA, MEd, MA, PhD
Childs, Ruth - BS, MA, PhD
Cohen, Nancy - BSc, MSc, PhD
Corter, Carl - BA, PhD
Cumming, Alister - BA, MA, PhD
Ducharme, Joseph - BA, MPSY, PhD
Ferrari, Michel - BA, MA, PhD
Geva, Esther - BA, MA, PhD *(Chair & Graduate Chair)*
Grusec, Joan - BA, PhD
Helwig, Charles - BA, PhD
Humphries, Thomas - PhD
Jenkins, Jennifer - BA, MA, PhD
Keating, Daniel - BA, MA, PhD
Lee, Kang - BSc, MEd, PhD
Lewis, Marc - BA, MA, PhD
Moore, Chris - BA, PhD

Pelletier, Janette - AB, BE, MEd, PhD
Perlman, Michal - 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
Caspary, Arthur - BSc, MSc, PhD
Eriks-Brophy, Alice - BEd, AB, MSL, PhD
Helms-Park, Rena - 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
McBride, Hazel - BA, BEd, MPsy, PhD
Moran, Greg - BA, MA, PhD
Moss, Joan - BA, MA, PhD
O'Connor, Tom - BA, MA, PhD
Pimm, David - BSc, MSc, MA, PhD
Roncadin, Caroline - BSc, MA, PhD
Toneatto, Anthony - PhD
Wilansky-Traynor, Pamela - PhD
Wu, Helen Xiaoyan - MA, PhD

° Courses which may continue over a program. The course is graded when completed.

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, MSc, 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

Department of Immunology
University of Toronto
Room 5271, Medical Sciences Building
Toronto, Ontario M5S 1A8
Canada

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.

Normal Program Length – 6 sessions (full-time)

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.

- Candidates must submit a thesis and defend it at an oral examination conducted by the School of Graduate Studies.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 1019Hº Master's Seminar Course (Credit/No Credit)
IMM 1020H Recent Advances in Clinical Immunology (Spring)
IMM 1100Hº Doctoral Seminar Course (Credit/No Credit)
IMM 1429H Developmental Immunology (Fall)
IMM 1430H Advanced Immunobiology (Spring)
IMM 2021Hº Special Topics in Immunology I (Credit/No Credit)
IMM 2100Hº Special Topics in Immunology II (Credit/No Credit)
IMM 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
Gommerman, Jennifer - BSc, PhD
Gorczynski, 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)*
Roifman, 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
Shulman, 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

o 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.

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 fulfil a two-year residency requirement that enables their full participation in the activities associated with the program.

Contact and Address
Web: www.chass.utoronto.ca/cir
Fax: (416) 978-5696
Telephone: (416) 978-0551
E-mail: cir.info@chass.utoronto.ca

Centre for Industrial Relations and Human Resources
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 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 must have a mid-B average overall to be recommended for the degree.

- Failure in any course (that is, a grade of less than B-) will require a review of the student's program by the department.

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 (Exclusion: CRI 2020H Applied Statistics in Criminology)
   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
   Plus one of the following law courses:
   IRE 1270H Law of Labour Relations (PR)
   IRE 1338H Law in the Workplace (PR)
   o Courses are chosen from the list of elective courses below to fill the requisite 5.0 FCE in the first year of the program.
   o 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.
   o 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)
   o 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. Students must take 7.0 full-course equivalents (FCE), of which 3.5 FCE are required courses, as follows:
   IRE 1010H Economic Environment of Industrial Relations and Human Resources
   IRE 1126H Labour Market Policy (PR)
   IRE 1611H Sociology of Industrial Relations
   IRE 2001H Foundations and Current Issues in Industrial Relations and Human Resources (PR)
   IRE 2002Y Research Methods in Industrial Relations and Human Resources (PR)
   Plus one of the following law courses:
   IRE 1270H Law of Labour Relations (PR)
   IRE 1338H Law in the Workplace (PR)
   o Courses are chosen from the list of elective courses below to fill the requisite 7.0 FCE in the program.
- Students in the MIRHR program are required to achieve a mid-B average in the first two sessions of the program (or in the first 5.0 FCE) in order to continue into the third session.
- All degree requirements for students in the advanced standing option must be completed within five years from the date of first enrolment in the MIRHR program.

Normal Program Length – 3 sessions (advanced standing MIRHR); 6 sessions (2-year MIRHR)

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 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
  - 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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.

Industrial Relations and Human Resources

IRE 1260H	Seminar on Labour Arbitration (PR)
IRE 1270H	Law of Labour Relations
IRE 1338H	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 1715H	Special Topics in Industrial Relations and Human Resources
IRE 1720H	Managing Organizational Change (PR)
IRE 1725H	Cross Cultural Differences in Organizational Contexts (PR)
IRE 2021H	Financial Information for IR/HR
IRE 2715H	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 3640H	Recruitment and Selection (PR)
IRE 3645H	Training and Development (PR)
IRE 3650H	Human Resource Planning and Strategy (PR)

Adult Education and Counselling Psychology

AEC 1101H	Program Planning in Adult Education
AEC 1148H	An Introduction to Workplace and Organizational Democracy
AEC 1268H	Career Counselling and Development: Transition in Adulthood

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)

(PR) Courses with prerequisites

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)

Political Science

JPJ 2042H	Labour Policy
POL 2307H	The Political Economy of Technology: from the Auto-Industrial to the Information Age

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 6003H	Immigration II
SOC 6012H	Sociology of Work I
SOC 6112H	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, CA
Campolieti, Michele - BSc, MA, 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, MSc, 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
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
Heathcote, Joanna - BA, MA, PhD
Levy, Alan - BA, MA
Radhakrishnan, Phanikiran - DPhil
Rittich, Kerry – BA Music, 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, Concurrent Registration Option (MI/MMSt)
Information Studies – PhD
Museum Studies – MMSt, Concurrent Registration Option (MMSt/MI)

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

For more information, please visit our Web site www.ischool.utoronto.ca.

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. The Faculty of Information also provides a Concurrent Registration Option whereby students may register concurrently in the Master of Information (MI) and Master of Museum Studies (MMSt) programs.

A post-master's **Graduate Diploma of Advanced Study in Information Studies** is also offered.

Contact and Address
Web: www.ischool.utoronto.ca
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:
     o Paper-based TOEFL exam: 600 with 5.5 on the Test of Written English (TWE)
     o 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.
- **Concurrent Registration Option (CRO)**
  o Master of Information/Master of Museum Studies degree programs. Applicants interested in completing the Master of Information and the Master of Museum Studies degree programs concurrently must apply to and be accepted into each program separately and receive approval from the graduate coordinator in each program. Applicants should indicate interest in the concurrent registra-

tion option at the time of application to the second of the two programs.

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:
  o **Course option**: All students must complete 4 core courses (2.0 FCE) plus 6.0 FCE in electives 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.
  o **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 16 half-courses (8.0 FCE) as follows: four core courses (2.0 FCE), a research methods course (0.5 FCE) appropriate to their program of study with a final grade of at least A-, five additional courses (2.5 FCE), and a thesis (3.0 FCE). The five additional courses may include up to four graduate courses (2.0 FCE) taken outside the MI program. Faculty approval is required to enter the thesis option. The thesis option is designed for students who have a clearly defined topic, can find a supervisor, and can meet tight deadlines in order to graduate within the usual time frame envisioned for the degree.
- All requirements must be completed satisfactorily within six 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, MIS or MISt 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.

Normal Program Length – 4 sessions over 2 years (full-time); 8 sessions (part-time)

Concurrent Registration Option (CRO)

- Students who have been accepted into both participating programs, with the permission of each graduate coordinator, may register concurrently in the Master of Information (MI) and Master of Museum Studies (MMSt) programs. The minimum period of registration required to complete both degrees in the concurrent registration option is three years.
- Students in the CRO must complete a total of 13.0 FCE (26 half-courses) as follows:
  - o 2.0 FCE core courses (4.0 half-courses) in the MI program, counted toward the MI degree.
  - o 2.0 FCE required courses (4.0 half-courses) in the MMSt program, counted toward the MMSt degree.
  - o At least 3.0 FCE elective courses in the MI program, to be counted toward the MI degree.
  - o At least 3.0 FCE elective courses in the MMSt program, to be counted toward the MMSt degree.
  - o An additional 3.0 FCE elective courses chosen from the MI program, the MMSt program, or elsewhere (maximum 2.0 FCE) to be counted toward both the MI and the MMSt degree.
  - o Registration in a CRO may affect eligibility for external and internal graduate awards and bursaries.

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 1230H	Management of Information Organizations
INF 1240H	Research Methods
INF 1300H	Foundations in Library and Information Science
INF 1310H	Introduction to Reference
INF 1320H	Introduction to Bibliographic Control
INF 1325H	Online Information Retrieval
INF 1330H	Archives Concepts and Issues
INF 1331H	Archival Arrangement and Description
INF 1332H	Archives Programs and Services
INF 1341H	Analyzing Information Systems
INF 1342H	Designing Information Systems
INF 1343H	Data Modeling and Database Design
INF 2010H	Reading Course
INF 2011H	Reading Course
INF 2020H	Ethnographic Field Methods for Exploratory Research
INF 2040H	Project Management
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 2130H	History of Libraries and Librarianship
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 Libraries
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 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   Architecting Information, Systems, and Organizations
INF 2180H   Archives: Access, Advocacy, and Outreach
INF 2181H   Information Policy
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 2188H   Archival Representation
INF 2195H   Special Topics in Information Studies: Privacy Practice Fundamentals
INF 2196H   Special Topics in Information Studies: New Media and Information Practices of the Young
INF 2198H   Special Topics in Information Studies: Visual Communication and Culture
INF 2221H   Digital Divides and Information Professionals: Developing a Critical Practice
INF 2240H   Political Economy and Cultural Studies of Information
INF 2241H   Critical Making: Information Studies, Social Values, and Physical Computing
INF 2242H   Studying Information and Knowledge Practice
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: Reading: Theories, Practices, and International Perspectives
INF 2331H   The Future of the Book

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 sessions, 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 may be requested.
- 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 the Faculty of Information 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 Faculty of Information Committee on Standing and by SGS.
- In Phase 1, students are required to complete:
  - a major subject (1.0 FCE): INF 3004Y *Advanced Topics in Information Studies*
  - a minor subject (1.0 FCE)
  - INF 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
  - 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. A final oral examination is required.
- Reading knowledge of a language other than English may be required.

Full-time PhD 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 practising 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 fulfil 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.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

Course List

INF 3004Y⁺   Advanced Topics in Information Studies
INF 3005Y   Advanced Seminar in Research Methodologies

+ Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Museum Studies

Master of Museum Studies

Minimum Admission Requirements

- SGS general regulations. Application deadlines are available on the Faculty of Information Web site www.ischool.utoronto.ca.
- 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.
- Applicants are admitted as students for the Master of Museuem Studies (MMSt) under the General Regulations of the School of Graduate Studies.

Concurrent Registration Option (CRO)

- Master of Information (MI)/Master of Museum Studies degree programs. Applicants interested in completing the Master of Information and the Master of Museum Studies degree programs concurrently must apply to and be accepted into each program separately and receive approval of the graduate coordinator in each program. Applicants should indicate interest in the concurrent registration option at the time of application to the second of the two programs.

Program Requirements

- Minimum requirement is 7.0 full-course equivalents (FCE) including 4 required half courses (2.0 FCE) and 10 additional courses (5.0 FCE), of which 3.0 FCE must be internal (Museum Studies) elective courses.
- Thesis option: The thesis option allows students to gain experience in developing and executing a research project from beginning to end. Students gain familiarity with the research process and hone their research skills. Students must complete 4 required half courses (2.0 FCE) and a research methods course (0.5 FCE) appropriate to their program of study with a final grade of at least A-. When the thesis option is selected, the requirement of 14 half-courses (7.0 FCE) for the MMSt program is to be met as follows: 4 required half courses (2.0 FCE), a research methods course (0.5 FCE), 6 additional half courses (3.0 FCE), and a thesis (1.5 FCE). The 6 additional half courses may include up to 4 graduate half courses (2.0 FCE) taken outside the MMSt program. Faculty approval is required to enter the thesis option. The thesis option is designed for students who have a clearly defined topic, can find a supervisor, and can meet tight deadlines in order to graduate within the usual time frame envisioned for the degree.
- 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%.

Normal Program Length – 5 sessions (full-time)

Concurrent Registration Option (CRO)
- Students who have been accepted into both participating programs, with the permission of each graduate coordinator, may register concurrently in the MI and MMSt programs. The minimum period of registration required to complete both degrees in the concurrent registration option is three years.
- Students in the CRO must complete a total of 13.0 FCE (26 half-courses) as follows:
  o 2.0 FCE core courses (4.0 half-courses) in the MI program, counted toward the MI degree
  o 2.0 FCE required courses (4.0 half-courses) in the MMSt program, counted toward the MMSt degree
  o At least 3.0 FCE elective courses in the MI program, counted toward the MI degree
  o At least 3.0 FCE elective courses in the MMSt program, counted toward the MMSt degree
  o An additional 3.0 FCE elective courses chosen from the MI program, the MMSt program, or elsewhere (maximum 2.0 FCE) counted toward both the MI and the MMSt degree
  o Registration in a CRO may affect eligibility for external and internal graduate awards and bursaries.

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 1230H Ethics, Leadership, 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 on the Faculty of Information Web site www.ischool.utoronto.ca.

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
Craig, Barbara - AM, PhD
Fleming, E Patricia - BA, BLS, MLS
Williamson, Nancy - BA, BLS, MLS

Associate Members
Brower, Matthew - PhD
Carter, Jennifer - PhD
Cox, Joseph - BA, MLS
Fantin, Loren - MLIS
Galey, Alan - PhD
Hartel, Jenna - PhD
Hockema, Stephen - PhD
Landon, Richard - BA, BLS
Lyons, Kelly - BSc, MSc, PhD
Meindl, Patricia - BSc, MSc, MLS
Moir, Michael - MA
Newman, Wendy - MLS
Ratto, Matthew - PhD
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, MA, 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

Department of Italian Studies
University of Toronto
Carr Hall, 2nd Floor
100 St. Joseph Street
Toronto, Ontario M5S 1J4
Canada

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, 19th–20th centuries) and an appropriate upper-year 1.0 FCE in language.
- Minimum B+ standing in their University of Toronto 300- and 400-series courses (or in equivalent courses).
- Two letters of recommendation.
- 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.

Normal Program Length – 3 sessions (full-time); 15 sessions (part-time)

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 program. 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

Course List

Not all courses are offered every year. Please consult the department regarding course availability.

ITA 1000H	Methodologies for the Teaching and Study of Italian (Credit/No Credit)
ITA 1001Y	Colloquia and Professional Development (Credit/No Credit)
ITA 1025H	Old Italian
ITA 1026H	Italian Dialectology
ITA 1029H	History of Italian Religious Language
ITA 1165H	Introduction to Italian Philology
ITA 1170H	Textual Criticism and the Editing of Early Italian Texts
ITA 1177H	The Italian Questione della Lingua
ITA 1200H	Dante
ITA 1203H	Boccaccio
ITA 1330H	Petrarch and Petrarchism
ITA 1520H	Renaissance Humanism
ITA 1525H	Renaissance Dialogue
ITA 1530H	Machiavelli
ITA 1535H	Topics in Italian Literature
ITA 1540H	Renaissance Italian Theatre
ITA 1545H	The Sacra Rappresentazione
ITA 1550H	Sixteenth-Century Florence

ITA 1565H	Tasso
ITA 1591H	Baroque Poetics and Poetry
ITA 1592H	Baroque Poetry and Neobaroque Poetics
ITA 1597H	The Commedia dell'Arte
ITA 1601H	Vico
ITA 1605H	Theories of the Stage and Dramatic Criticism
ITA 1610H	Seventeenth- and Eighteenth-Century Theatre
ITA 1645H	Post-Tridentine Religious Drama
ITA 1650H	Neoclassical and Pre-Romantic Literary Culture
ITA 1661H	Topics in Nineteenth-Century Italian Literature
ITA 1705H	Pirandello
ITA 1710H	Aspects of Modern Italian Poetry
ITA 1723H	Trends in the Italian Novel 1900-1960
ITA 1728H	New Trends in the Italian Novel From 1957 to the Present
ITA 1729H	Contemporary Literary Criticism in Italy
ITA 1730Y	Aspects of Semiotic Theory and Practice in Italy
ITA 1735H	Topics in Italian Studies I
ITA 1736H	Topics in Italian Studies II
ITA 1755H	Italian Modernism
ITA 1760H	From Futurism to Novecentismo: The Rise and Fall of the Italian Avant-Garde
ITA 1810H	Studies in Italian Literature and Film
ITA 1815H	Issues in Italian Film Historiography
ITA 2011H	Directed Research in Italian Linguistics
ITA 2041H	Directed Research Topics 1
ITA 2042H	Directed Research Topics 2
ITA 2043H	Directed Research Topics 3
ITA 2044H	Directed Research Topics 4
ITA 2051H	Lecture Series Research 1
ITA 2052H	Lecture Series Research 2
ITA 2053H	Lecture Series Research 3
ITA 2054H	Lecture Series Research 4
ITA 3000H	Italian Canadian Culture
JIC 5000H	Narrativity and Intertextuality in Italian Fiction
JIF 1000H	Romance Philology I
JIF 1001H	Romance Philology II
JMI 1951H	Italian Musical Theatre of the Baroque and Classic Periods
JRL 1100Y	Introduction to Romance Philology
MST 3162H	Boccaccio and Chaucer

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

Members Emeriti
Franceschetti, Antonio - LittD, PhD

Associate Members
Lepschy, Anna Laura - MA
Lepschy, Giulio - PhD
Pierno, 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, MSc, 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

Department of Laboratory Medicine and Pathobiology
University of Toronto
Medical Sciences Building
Room 6243, 1 King's College Circle
Toronto, Ontario M5S 1A8
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:
  - Pathobiology Specialist Program
  - Four-year honours BSc in Life Sciences
  - Professional degree (e.g., MD, DDS, DVM, or equivalent)
- A minimum A- average over the final two years of undergraduate study.
- Two strong letters of recommendation from faculty members familiar with the applicant's academic work. 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.
- Within 12 to 18 months of entry, students will be advised by their committee to do one of the following:
    o write and orally defend a thesis on research completed,
    o transfer to the PhD program, or
    o 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.

Normal Program Length – 5 sessions (full-time)

Doctor of Philosophy

Minimum Admission Requirements

- Two routes of entry are available:
    o **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.
    o **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:
    o the Graduate Coordinator (or a representative from the graduate faculty of the Department) who chairs the examination committee,
    o the student's advisory committee, and
    o 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.
- 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 present at least once in LMP 1001Y prior to defending their thesis. Students are required to attend the departmental guest lecture series, Seminars in Molecular Pathobiology, that immediately follows the student seminar course LMP 1001Y.
- 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.

- In addition to this, students are required to take three half-course equivalents, of which at least one half-course is from Laboratory Medicine and Pathobiology. Exception: students having completed the undergraduate Pathobiology Specialist Program (or equivalent) are required to take only two additional half courses. 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.
- 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.

Normal Program Length – 4 years (post-master's PhD); 5 years (direct-entry PhD)

Course List

Not all courses are offered every year. Please check the departmental Web site, www.lmp.facmed.utoronto.ca, for course availability.

LMP 1001Y 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)

LMP 1005Y General and Special Pathology (For Oral Pathology Residents only)

LMP 1013H Neoplasia

LMP 1015H Vascular Pathobiology

LMP 1016H The Pathology of Connective Tissue

LMP 1018H Molecular Biology and Applications to Human Disease

LMP 1019H Research Techniques in Molecular Biology and Pathobiology

LMP 1020H Inflammation, Immunity, and Immunopathology

LMP 1401Y Clinical Biochemistry (For Residents and Diploma students only)

LMP 1404H Molecular and Cellular Mechanisms of Disease (Mandatory for all MSc and PhD students in the Department of Laboratory Medicine and Pathobiology)

LMP 1407H Introductory Biostatistics and Clinical Investigation

LMP 1503H Signal Transduction Pathways in Normal and Diseased Tissues

LMP 1504H Cell and Molecular Biology of Cardiovascular Diseases

LMP 1505H Analytical Clinical Biochemistry: Basic Principles

LMP 1510H Molecular Biology Techniques

LMP 1515H Cell Death in Development and Disease

LMP 1520H Translational Research in Pathobiology

LMP 2115H Selected Topics in Medical Microbiology

RST 9999Y Research Project

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
Bendeck, Michelle - BSc, PhD
Bergeron, Catherine - MD
Boggs, Joan - MSc, PhD
Bognar, Andrew - BSc, PhD
Branch, Donald - BA, BSc, PhD
Bremner, Roderick Angus - 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
Dennis, James - PhD
Denomme, 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
Elsholtz, 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
Hamel, Paul - BSc, PhD
Harrison, Rene - BS, MS, PhD
Hawkins, Cynthia - MD, PhD
Hedley, David - MD
Hegele, Richard - MD *(Chair & Graduate Chair)*
Hinek, Aleksander - MD, PhD
Hough, Margaret - BSc, PhD
Hu, Jim - BSc, PhD
Husain, Mansoor - MB, MD
Irwin, David - BSc, PhD
Irwin, Meredith - MD
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
Lazarus, Alan - PhD
Levy, Gary - BSc, MD
Lingwood, Clifford - BSc, PhD
Low, Donald - BSc, MD
Lukacs, Gergely - MD, PhD
Mahuran, Don - BA, PhD
Marsden, Philip - MD
Mazzulli, Tony - MD
McKerlie, Colin - DVSM, DVM
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
Ohh, Michael - BSc, PhD
Opas, Michal - MSc, PhD
Ostrowski, Mario - MD
Ozcelik, Hilmi - BSc, MSc, PhD
Palaniyar, Nades - MSc, PhD
Post, Martin - PhD
Pritzker, Kenneth - BSc, MD
Prud'homme, Gerald - MD
Rand, Margaret - BSc, PhD
Reis, Marciano - MD
Richardson, Susan - BSc, MDCM
Robertson, Janice - BSc, PhD
Rosenblum, Norman - MD
Rowe-Magnus, Dean - BSc, MSc, PhD
Rozakis-Adcock, Maria - BSc, PhD
Rutka, James - BSc, LMCC, MD, PhD
Schmitt-Ulms, Gerold - BSc, MSc, DrRerNat
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 - MDCH
Strauss, Bradley - MD
Swallow, Carol - BA, MD, PhD
Taylor, Michael - BSc, DrMed, PhD
Templeton, Douglas - BSc, MD, PhD
Tenenbaum, Howard - DDS, PhD
Thorner, Paul - MD, DPhil
Tsao, Ming-Sound - BSc, MD
van der Kwast, Theodorus - MD, PhD
Vieth, Reinhold - BSc, MSc, PhD
Wang, Chen - MD, PhD
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
Zacksenhaus, Eldad - PhD
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
Croul, Sidney - MD
Crowcroft, Natasha - BA, MA, MSc, MBBS, PhD
Drews, Steven - BA, BSc, MSc, PhD
Fernandes, Bernard - MBChB
Guyard, Cyril - MSc, PhD
Huang, Annie - MD
Hwang, David - BSc, MD, PhD
Keating, Sarah - MSc, MD
Kingdom, John - DCH, MB, MD
Leytin, Valery - MSc, PhD, DSc
Li, Ren-Ke - MHSc, MSc, MD, PhD
Mekhail, Karim - BSc, PhD
Melano, Roberto - MSc, PhD
Ng, Dominic - MD
Pillai, Dylan - BSc, MD, PhD
Pollanen, Michael - BSc, MD, PhD
Riddell, Robert - LMCC, LRCP, MBBS
Romaschin, Alexander - DipChem, BSc, PhD
Somers, Gino - MBBS, BMedSc, 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

Faculty of Law
University of Toronto
78 Queen's Park
Toronto, Ontario M5S 2C5
Canada

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:
  - paper-based TOEFL: 600 and 5 on the TWE
  - 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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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:
  - o paper-based TOEFL: 600 and 5 on the TWE
  - 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
- 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.

Normal Program Length – 3 sessions (full-time)

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:
  - o paper-based TOEFL: 600 and 5 on the TWE
  - 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

SJD
- 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 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, 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.

Normal Program Length – 3 years (full-time SJD)

Course List
LAW 245Y   Alternative Approaches to Legal Scholarship

Graduate Faculty

Full Members
Benson, Peter - LLB, LLM, PhD
Brudner, Alan S - BA, MA, PhD
Brunnee, Jutta - LLM, SJD **(Associate Dean, Graduate Studies)**
Chapman, Bruce - BA, LLB, PhD
Choudhry, Sujit - LLB, LLM
Cook, Rebecca - BA, LLM, MA, MPA, JD, SJD
Cossman, Brenda - LLB, LLM
Dawood, Yasmin - BA, MA, JD, PhD
Dewees, Donald - LLB, BScEE, PhD
Dubber, Markus - AB, JD
Duggan, Anthony - BA, LLB, LLM, LLD
Dyzenhaus, David - BA, LLB, PhD
Emon, Anver - LLB, BA, LLM, MA, PhD, SJD
Fadel, Mohammad - BA, JD, PhD
Flood, Colleen - LLB, LLM, SJD
Iacobucci, Edward - LLB, MPH
Katz, Ariel - LLB, LLM, SJD
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)**
Moreau, Stephanie Sophia - BPhil, BA, JD, PhD
Morgan, Edward - LLB, BA, LLM
Nedelsky, Jennifer R - BA, MA, PhD
Phillips, James - LLB, MA, PhD
Prado, Mariana - LLB, LLM, SJD
Reaume, Denise - BA, LLB, BCL
Ripstein, Arthur S - BA, PHM, LLM, PhD
Rittich, Kerry - BAMusic, LLB, SJD
Roach, Kent - BA, LLB, LLM
Rogerson, Carol - BA, LLB, 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
Stewart, Hamish - BA, LLB, MA, PhD
Trebilcock, Michael - LLB, LLM
Valcke, Catherine - BCL, LLB, LLM, SJD
Valverde, Mariana - BA, MA, PhD, Fell Royal Society Canada
Waddams, Stephen - BA, LLB, BA, LLM, PhD, SJD
Weinrib, Ernest - BA, LLB, PhD
Weinrib, Lorraine - BA, LLB, LLM
Yoon, Albert - BA, LLB, MA, PhD

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
Fernandez, Angela - LLB, BA, BCL, LLM, MA, SJD
Green, Andrew - LLB, BA, LLM, MA, PhD
Hirschl, Ran - BA, LLB, MA, MPH, PhD, Canada
 Research Chair
Lee, Ian - LLB, BCom, LLM
Regehr, Cheryl - AB, MA, PhD
Sanderson, Douglas - BA, LLM, JD
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.linguistics.utoronto.ca/
E-mail: lingdept@chass.utoronto.ca
Telephone: (416) 978-4029
Fax: (416) 971-2688

Department of Linguistics
University of Toronto
Fourth Floor, Sidney Smith Hall
Toronto, Ontario M5S 3G3
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.
- The **two-year MA** program normally requires 8.0 FCE including courses LIN1121H, LIN 1131H, LIN 1181H, LIN 1290Y, and JAL 1145H, or their equivalents, if not already taken, plus other requirements as determined by the Department. LIN1121H, LIN 1131H, and LIN 1181H are normally taken in the first year. LIN 1290Y is taken in the final year of the program.
- All students must demonstrate an ability to read professionally in one language other than English. The choice of language must be approved by the graduate coordinator, having regard to the student's field of research. In some circumstances, demonstrated competence in computer programming may satisfy the requirement.

Normal Program Length – 3 sessions (one-year MA); 6 sessions (two-year MA)

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.

Normal Program Length – 4 years (full-time PhD)

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
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	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
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	Advanced Language Variation I
LIN 1256H	Advanced Language Variation II
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
Brousseau, Anne-Marie - PhD
Chambers, Craig - BA, MA, MA, PhD
Colantoni, Laura - MA, PhD
Cowper, Elizabeth - BA, AM, PhD
Dresher, B 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
Massam, Diane - BA, MA, PhD
Nagy, Naomi - BA, PhD
Paz, Alejandro - BA, MPA, MA
Perez-Leroux, Ana Teresa - MA, PhD
Rice, Keren - BA, MA, PhD
Roberge, Yves - BA, MA, PhD
Schallert, Joseph - PhD
Sidnell, Jack - BA, MA, PhD
Smyth, Ronald - BA, MSc, PhD
Tagliamonte, Sali - BA, MA, DPhil *(Coordinator of Graduate Studies)*

Members Emeriti
Chambers, J - DipEd, BA, MA, PhD
Reich, Peter - BS, MS, PhD

Associate Members
Cuervo, Maria Cristina - PhD
Hachimi, Atiqa - BA, MA, PhD
Heller, Daphna - PhD
Helms-Park, Rena - BA, MA, AM, DPhil
Narayan, Chandan - BA, 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 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

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

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.
- Applicants must obtain a satisfactory score on the Graduate Management Admissions Test (GMAT) www.mba.com or the Graduate Records Examinations (General). 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.

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.
- Applicants must obtain a satisfactory score on the Graduate Management Admissions Test (GMAT) www.mba.com or the Graduate Record Examinations (General) . 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.

Normal Program Length – 6 sessions (full-time 2-year MBA); 9 sessions (3-year MBA)

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 on the Law School Admission Test (LSAT) and the Graduate Management Admission Test (GMAT) [www.mba.com] or the Graduate Record Examinations (General). Test results are valid for five years.
- 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 apply.

Program Requirements
- Within this combined six-year and eight month program, students in:

o **Years 1-4**: complete engineering studies before entering MBA studies; participate in the Professional Experience Year (PEY) placement.

o **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).

o **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:

Second Digit Course Weight
0 CR/NCR (Credit/No Credit)
1 one credit hour
2 two credit hours
3 three credit hours

The Department should be consulted each session as to course offerings.

1000 Level
RSM 1103H Business Ethics
RSM 1210H Managerial Economics
RSM 1211H Economic Environment of Business
RSM 1212H Global Managerial Perspective
RSM 1222H Managerial Accounting
RSM 1241H Operations Management
RSM 1261H Managerial Negotiations
RSM 1262H Leadership
RSM 1263H Managing People in Organizations
RSM 1291H Foundations of Integrative Thinking
RSM 1292H Integrative Thinking Practicum
RSM 1301H Fundamentals of Strategic Management
RSM 1320H Financial Accounting
RSM 1330H Business Finance
RSM 1350H Managing Customer Value
RSM 1382H Statistics for Management

2000 Level
RSM 2002Y Research Project
RSM 2003H Research Project
RSM 2010H Business-Government Relations
RSM 2011H International Business
RSM 2012H Entrepreneurship
RSM 2015H Special Topics in Strategic Management
RSM 2016H Special Topics in Strategic Management
RSM 2017H Special Topics in Strategic Management
RSM 2018H Special Topics in Strategic Management
RSM 2019H Special Topics in Strategic Management
RSM 2020H Health Sector Strategy & Organizations
RSM 2021H Corporate Strategy
RSM 2022H Competition and Strategy in Creative Industries
RSM 2023H Strategic Change and Implementation
RSM 2024H Outsourcing
RSM 2025H Business Law
RSM 2027H Non-profit Consulting
RSM 2030H Using History to Make Strategic Choices
RSM 2050H Technology/Management Interface
RSM 2052H Management Consulting
RSM 2053H Organizational Strategy
RSM 2054H Technology Strategy
RSM 2055H Cooperative Strategy
RSM 2056H Game Theory and Competitive Strategy
RSM 2057H Venture Capital
RSM 2058H Case Analysis and Presentation
RSM 2080H Special Topics in Strategic Management
RSM 2081H Special Topics in Strategic Management
RSM 2082H Special Topics in Strategic Management
RSM 2083H Special Topics in Strategic Management
RSM 2084H Special Topics in Strategic Management
RSM 2087H Corporate Citizenship Strategy
RSM 2115H Special Topics in Business Economics
RSM 2116H Special Topics in Business Economics
RSM 2117H Special Topics in Business Economics
RSM 2118H Special Topics in Business Economics
RSM 2119H Special Topics in Business Economics
RSM 2120H Health Policy and Health Care Markets
RSM 2122H Business and the Regulatory Environment
RSM 2123H International Business in the World Economy
RSM 2125H Game Theory and Applications for Management
RSM 2126H Real Estate Development
RSM 2127H Economic Environment of International Business
RSM 2128H Real Estate Economics
RSM 2129H Forecasting Models and Econometric Methods
RSM 2130H Real Estate Investment
RSM 2140H Special Topics in Business Economics
RSM 2141H Special Topics in Business Economics
RSM 2142H Special Topics in Business Economics
RSM 2202H Planning and Control Systems
RSM 2203H Current Issues in Financial Reporting and Disclosure
RSM 2204H Taxation & Decision Making
RSM 2209H Financial Statement Analysis

RSM 2210H Corporate Bankruptcy and Insolvency
RSM 2215H Special Topics in Accounting
RSM 2216H Special Topics in Accounting
RSM 2300H Corporate Financing
RSM 2301H Financial Management
RSM 2302H Security Analysis and Portfolio
          Management
RSM 2303H Risk Modelling and Financial Trading
          Strategies
RSM 2304H Financial Institutions and Capital Markets
RSM 2305H International Financial Management
RSM 2306H Options and Futures Markets
RSM 2307H Advanced Derivatives
RSM 2308H Financial Risk Management
RSM 2309H Mergers and Acquisitions
RSM 2310H Analysis and Management of Fixed Income
          Securities
RSM 2311H Applied Portfolio Management
RSM 2312H Value Investing
RSM 2315H Special Topics in Finance
RSM 2316H Special Topics in Finance
RSM 2317H Special Topics in Finance
RSM 2405H Supply Chain Management
RSM 2406H Operations Management Strategy
RSM 2407H Service Operations Management
RSM 2415H Special Topics in Management Science
RSM 2500H Marketing Strategy
RSM 2501H Global Marketing
RSM 2504H Consumer Behaviour
RSM 2505H Integrated Marketing Communication
RSM 2506H Marketing Research
RSM 2507H Marketing Analysis and Decision Making
RSM 2510H Distribution Channel Strategy
RSM 2511H Marketing Financial Services
RSM 2512H Branding
RSM 2513H Pricing
RSM 2514H Healthcare Marketing
RSM 2515H Special Topics in Marketing
RSM 2516H Special Topics in Marketing
RSM 2518H Special Topics in Marketing
RSM 2519H Special Topics in Marketing
RSM 2520H Special Topics in Marketing
RSM 2524H Design Practicum
RSM 2601H Organization Design
RSM 2602H Emotionally Intelligent Leadership
RSM 2603H Advanced Negotiations and Conflict
          Management
RSM 2605H International Organizational Behaviour
RSM 2606H Designing New Work Organizations
RSM 2607H Managerial Negotiations
RSM 2609H Management of Human Resources
RSM 2610H Industrial Relations
RSM 2612H Managing Talent for Global Operations
RSM 2615H Special Topics in Organizational Behaviour
RSM 2616H Special Topics in Organizational Behaviour
RSM 2618H Special Topics in Organizational Behaviour
RSM 2619H Power and Influence in Organizations
RSM 2704H Information Technology Management
RSM 2800H Management Science
RSM 2910H Learning How to Learn
RSM 2913H Getting It Done

RSM 2915H Multidisciplinary Special Topics
RSM 2916H Multidisciplinary Special Topics
RSM 2917H Multidisciplinary Special Topics
RSM 2918H Multidisciplinary Special Topics
RSM 2920H Top Manager's Perspective
RSM 2922H The Opposable Mind

Executive Master of Business Administration

Minimum Admission Requirements
- Applicants are considered under the general regulations of the School of Graduate Studies.
- Admission is restricted to applicants with significant professional work or managerial experience.
- Applicants must obtain either a satisfactory score for the Executive MBA Diagnostic Tool (EDT), the Graduate Management Admission Test (GMAT) [www.mba.com] or the Graduate Record Examination (GRE) (General). Test results are valid for five years. 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 18-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.
  - With the permission of the Associate Dean and EMBA Program Director, students may participate in a School-approved international exchange program for one course.

Normal Program Length – 18 months

Courses for the EMBA

First Session
RSM 5001H Strategy 1
RSM 5003H Personal Leadership 1
RSM 5005H The Business Environment 1
RSM 5012H Special Topics in Strategic Management
RSM 5101H Economics 1
RSM 5201H Accounting 1
RSM 5301H Finance 1
RSM 5401H Business Operations
RSM 5501H Marketing 1
RSM 5601H Organizational Leadership 1
RSM 5801H Quantitative Reasoning for Management

Second Session
RSM 5002H Strategy 2
RSM 5004H Personal Leadership 2

RSM 5006H   The Business Environment 2
RSM 5007H   International Business
RSM 5009H   Topics in Strategic Management
RSM 5011H   Capstone Project - The Responsible
                      Leader
RSM 5102H   Economics 2
RSM 5202H   Accounting 2
RSM 5302H   Finance 2
RSM 5502H   Marketing 2
RSM 5602H   Organizational Leadership 2

Global Executive Master of Business Administration (Omnium)

Minimum Admission Requirements
- Applicants are considered under the general regulations of the School of Graduate Studies.
- Admission is restricted to applicants with significant professional work or managerial experience.
- Applicants must obtain either a satisfactory score for the Executive MBA Diagnostic Tool (EDT), the Graduate Management Admission Test (GMAT) [www.mba.com] or the Graduate Record Examination (GRE) (General). Test results are valid for five years. 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 18-month program:
  - Students complete 23 courses with an accumulated credit weighting of 11.25
  - Students complete several international modules, each module varying in length from two to three weeks at various international locations which are subject to change. For further details, please refer to the Web site or contact the program.
  - The curriculum is closely aligned with courses offered in the Executive MBA program. Between modules, participants continue their academic work by utilizing our electronic learning tools.
  - After successfully completing all modules, participants receive the MBA degree from the University of Toronto.

Normal Program Length – 18 months

Courses for the GEMBA
RSM 5001H   Strategy 1
RSM 5002H   Strategy 2
RSM 5004H   Personal Leadership
RSM 5005H   The Business Environment 1
RSM 5006H   The Business Environment 2
RSM 5007H   International Business
RSM 5009H   Topics in Strategic Management
RSM 5010H   Industry Analysis Project:

RSM 5011H   Capstone Project - The Responsible
                      Leader: Growth Project
RSM 5012H   Special Topics in Strategic Management
RSM 5101H   Economics 1
RSM 5102H   Economics 2
RSM 5201H   Accounting 1
RSM 5202H   Accounting 2
RSM 5301H   Finance 1
RSM 5302H   Finance 2
RSM 5401H   Business Operations
RSM 5501H   Marketing 1
RSM 5502H   Marketing 2
RSM 5601H   Organizational Leadership 1
RSM 5602H   Organizational Leadership 2
RSM 5801H   Quantitative Reasoning for Management
RSM 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.
- o may be required to do some pre-program studies during the summer prior to the start of the program, depending on background preparation.
- o All degree requirements must be completed within six years of first enrolment in the Master of Finance program.

Normal Program Length – 4 sessions over 2 years (full-time)

Courses for the MF

RSM 4310H Foundations of Finance
RSM 4311H Corporate Finance and Valuation
RSM 4312H Derivatives
RSM 4313H Firms, Deals and the Economy
RSM 4314H Risk Management and Financial
          Institutions
RSM 4315H Investment Banking
RSM 4316H Financial Reporting and Financial
          Statement Analysis
RSM 4317H Analysis of Fixed Income Markets
RSM 4318H Finance Theory
RSM 4319H Portfolio Management and Trading Risks
RSM 4320H Advanced Accounting Topics for Finance
RSM 4321H Leadership and Decision Making in
          Finance
RSM 4322H Applications of Derivatives Products
RSM 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:
  - o Transcripts from each post secondary institution attended.
  - o A letter of intent for applying to the PhD Program.
  - o An updated Curriculum Vitae (CV).
  - o Two reference letters.
  - o A valid GMAT or GRE score.
  - o 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:
  - o Complete a minimum of 4.0 full-course equivalents (FCE) to satisfy requirements for one major field and two minor fields of study.
  - o 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.
  - o The two minor fields are usually taken in cognate departments. Each minor field comprises at least 1.0 FCE.
  - o Successful completion of the required course MGT 3080H *Research Methods in Business*.
  - o 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.
  - o Upon completion of the courses in the major and minor fields, the student is expected to pass comprehensive examinations in the major field.
  - o 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.

Normal Program Length – 4 years (full-time PhD); students requiring additional courses may take an additional year

Courses for the PhD
The Department should be consulted each session as to course offerings.

Courses normally restricted to PhD students
RSM 3001H Research Methods in Strategic
          Management
RSM 3002H Advanced Topics in Strategy and
          Organization
RSM 3003H Advanced Topics in Strategy and
          Economics
RSM 3004H Advanced Topics in International Strategy
RSM 3005H Strategic Management Workshop
RSM 3020H Financial Accounting: Theory and Empirical
          Research
RSM 3021H Managerial Accounting Research Methods
RSM 3022H Auditing Seminar
RSM 3023H Topics in Accounting Research
RSM 3025H Workshop in Accounting
RSM 3030H Financial Theory I
RSM 3031H Financial Theory II
RSM 3032H Empirical Methods in Finance
RSM 3033H Current Topics in Finance
RSM 3034H Capital Markets Workshop
RSM 3041H Seminar in Operations Management

RSM 3045H Advanced Topics in Operations
                    Management I
RSM 3046H Advanced Topics in Operations
                    Management II
RSM 3051H Marketing Theory I: Consumer Behaviour
RSM 3052H Marketing Theory II: Strategy
RSM 3053H Behavioural Research Methods in
                    Marketing
RSM 3054H Current Topics in Consumer Behaviour
RSM 3055H Econometric Methods in Marketing
RSM 3056H Current Topics in Marketing Strategy
RSM 3057H Workshop in Marketing (Credit/No Credit)
RSM 3058H The Psychology of Judgement and
                    Decision Making
RSM 3060H Advances in Human Resource
                    Management
RSM 3062H Methods and Research in Organizational
                    Behaviour and Industrial Relations
RSM 3063H Advanced Topics in Organization Theory
RSM 3064H Advanced Topics in Organizational
                    Behaviour
RSM 3065H New Directions in Organizational Research
RSM 3080H Resarch Methods in Business
RSM 3090H Reading Course in Approved Field
RSM 3091H Reading Course in Approved Field

Graduate Faculty

Full Members
Aggarwal, Pankaj - BEC, MBA, MBA, PhD
Aivazian, Varouj - BS, MA, PhD
Amburgey, Terry - MA, PhD
Amernic, Joel - BSc, MBA, CA
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, CA
Callen, Jeffrey - BM, MBA, DPhil
Corts, Kenneth - BA, MA, PhD
Cote, Stephane - PhD
D'Cruz, Joseph - BA, MBA, PhD
Doidge, Craig Andrew - BComm, MSc, PhD
Dyck, Alexander - BA, PhD
Elitzur, Ramy - BA, MBA, PHM, PhD
Florida, Richard - BA, PhD
Frazer, Garth - BE, BM, MPH, MA, PhD
Golden, Brian - BS, MS, PhD
Goldfarb, Avi - BA, MA, PhD
Goldreich, David - BS, MS, MBA, PhD
Gunz, Hugh - DPhil, 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
Kaplan, Sarah - PhD
Kirzner, Eric - BA, MBA
Kramer, Lisa - BBA, PhD
Krass, Dmitry - MEng, PhD
Latham, Gary - BA, MS, PhD
Li, Yue - BSc, MBA, PhD
Mahrt-Smith, Jan - BSc, PhD
Martin, Roger - AB, MBA *(Dean)*
McCurdy, Thomas - AB, MEC, DPhil
McEvily, William - BS, PhD
McGahan, Anita - BA, MA, MBA, PhD
Mehta, Nitin - BTech, MS, PhD
Menzefricke, 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, CA
Rindisbacher, Marcel - BA, MSc, PhD
Rotenberg, Wendy - PhD
Rotundo, Maria - BA, MA, DBA
Rowley, Timothy - BA, MBA, PhD
Saks, Alan - BA, MSc, PhD
Shi, Mengze - BS, MS, MBA, PhD
Silverman, Brian - AB, MA, DBA
Smieliauskas, Waldemar - BS, MS, PhD
Soberman, David - BScHE, MBA, PhD
Soman, Dilip - BE, MBA, 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
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
Borkovsky, Ron - BSc, MA, PhD
Bova, Francesco - MPH, MBA, PhD
Buti, Sabrina - BEC, MEC, PhD
Casciaro, Tiziana - BA, MS, PhD
Cen, Ling - BEC, MEC, PhD
Chen, Feng - PhD
Ching, Andrew Tat Tin - BEC, MA, PhD
Christianson, Marlys - MD
Davydenko, Sergei - MA, MSc, PhD
De Franco, Gus - BA, MBA, PhD
De Voe, Sanford - BA, PhD
Eiling, Esther - BA, MS, PhD
Fleischer, Anne - BA, MBA, PhD
Franco, April - BPhil, MEC, PhD
Galasso, Alberto - PhD
Han, Lu - BA, MA, PhD
Hossain, Tanjim - PhD
Hu, Ming - MS, PhD
Kim, Kyeongheui - BA, MBA, 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
Toh, Soo Min - BBA, PhD
Trougakos, John Peter - BS, MBA, PhD
Tsai, I-Wen (Claire) - BBA, MBA, PhD
Weber, Mark - AB, MBA, AM, PhD
Xin, Baohua - PhD
Yang, Liyan - PhD
Ye, Minlei - 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 – MASc, 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, MASc, PhD
2. **Environmental Engineering**
   - Materials Science and Engineering, MASc, 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, life cycle analysis of materials, 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, polymeric, and nanomaterials in such fields as plastic deformation, surface chemistry, sustainable development, 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: materials.engineering@utoronto.ca
Telephone: (416) 978-3012
Fax: (416) 978-4155

Department of Materials Science and Engineering
University of Toronto
Room 140, Wallberg Building
Toronto, Ontario M5S 3E4
Canada

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. 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 FCE (four half-courses), including the weekly MASc Graduate Research Seminar, the Graduate Ethics Seminar, and a thesis. Normally, the course work selected includes the MASc Graduate Research 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.

Normal Program Length – 6 sessions

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. 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 FCE (10 half-courses). A project may be substituted for 1.5 FCE (three half-courses). The project must be presented at an oral examination.

Normal Program Length – 4 sessions over 2 years (full-time); 6 sessions (part-time)

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 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. 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 FCE (four half-courses), including the weekly PhD Graduate Research Seminar, and a thesis. Normally, the course work selected includes the PhD Graduate Research Seminar, which is a half-year course, and three half-courses, at least one of which must be taken inside the department. In the PhD program, the departmental seminar comprises a minimum of two seminars presented to the academic staff/students of MSE.
- 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.

Normal Program Length – 4 years (full-time PhD)

Course List
A schedule is available on the MSE Web site at the beginning of the fall session, listing the time and room location for each course offered in MSE.

Not all courses are offered every year. Please consult the department for a listing of courses being offered this year.

All students wishing to undertake graduate research in the Department of Materials Science and Engineering must successfully complete a two-day intensive occupational health and safety training program which will normally take place during the week immediately preceding the commencement of graduate courses. More details concerning this course will be provided by the Coordinator of Graduate Studies once admission to a graduate program has been confirmed.

After the initial safety training, all students are required to pass refresher safety training annually.

Materials Science
MSE 550H	Advanced Physical Properties of Structural Nanomaterials
MSE 558H	Nanotechnology in Alternate Energy Systems
MSE 561H	Engineered Ceramics
MSE 1000H°	Graduate Research Seminar MASc
MSE 1013H	Growth and Characterization of Semiconductors
MSE 1015H	Mechanical Properties of Solids I
MSE 1016H	Mechanical Properties of Solids II
MSE 1022H	Special Topics in Materials Science I
MSE 1023H	Special Topics in Materials Science II
MSE 1024H	Interface and Nanophase Engineering
MSE 1025H	Non-Crystalline Solids
MSE 1026H	Analytical Electron Microscopy
MSE 1028H	Advanced Materials Science
MSE 1029H	Electrochemical Synthesis of Nanomaterials
MSE 2000H°	Graduate Research Seminar PhD
JMZ 1704H	Polymer Process Engineering
JTC 1020H	Ceramics
JTC 1135H	Applied Surface Chemistry

Metallurgy
MSE 504H	Extractive Metallurgy
MSE 1000H°	Graduate Research Seminar MASc
MSE 2000H°	Graduate Research Seminar PhD
MSE 3000Y	MEng Project

Graduate Faculty

Full Members
Argyropoulos, Stavros - MEng, PhD
Coyle, Thomas - BS, BA, ScD
Erb, Uwe - MSc, PhD
Grynpas, Marc - MSc, PhD
Kherani, Nazir - BASc, MASc, PhD
Lian, Keryn - BE, MASc, MSc, PhD
Lu, Zheng-Hong - BSc, MSc, PhD
Naguib, Hani - BSc, ME, PhD, Reg Professional Engineer
Nogami, Jun - BASc, MASc, PhD *(Chair and Graduate Chair)*
North, Thomas - BSc, MSc, PhD
Perovic, Doug - BASc, MASc, PhD
Ruda, Harry - BSc, PhD

° Courses which may continue over a program. The course is graded when completed.

Sone, Eli - BSc, MS, PhD
Thorpe, Steven - BASc, MASc, PhD *(Associate Chair, 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, Assoc Royal Coll of Sci

Associate Members

Ramsay, Scott - BASc, MASc, 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:
  - Paper-based TOEFL exam: 580 and 5 on the Test of Written English (TWE)
  - Internet-based TOEFL exam: 93/120 and 22/30 on the writing and speaking sections
- Applicants must also show evidence of strong mathematical ability. Appropriate workplace experience will be considered in lieu of formal education.
- Admission to the program is competitive. Those accepted into the program will normally have achieved a standing considerably higher than the minimum mid-B standing or have demonstrated exceptional ability through appropriate workplace experience.
- Applicants must satisfy the admissions committee of their ability to do rigorous quantitative analysis at an advanced level. The broad background required for this program makes it likely that many strong applicants will not possess all the background requirements. It is expected that applicants will have extra depth in certain areas and need to do additional work in others. Admission may be conditional upon the applicant's satisfactory completion of the required background material.
- Applicants should submit a written statement of approximately 300 words outlining their objectives for entering the program. Applicants should also explain how their background is appropriate. An interview may be required.
- Inquiries about part-time options for the program should be addressed to the Program Director.

Program Requirements
- The program of study begins in mid-August and includes a four-month internship during the second session. Students will be responsible for obtaining their own internship. In cases where the student is taking a leave of absence from an appropriate job, it is expected that the student will return to this job for the internship. In all cases, the Director must approve the placement.
- Students will proceed through the program as a group, following a common course of study. The course of study will be fully integrated and computer-laboratory intensive. Course projects and assignments will be designed to integrate the material learned from a variety of the courses and to utilize it in a practical context. Excellent communication and presentation skills will be emphasized in both the oral and written components of the projects.
- Students must complete all courses listed on next page.

Normal Program Length – 3 sessions (full-time)

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 1928H Pricing Theory 1
MMF 1929H Pricing Theory 2
MMF 1941H Stochastic Analysis
MMF 1943Y° Communication
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
Rosen, Dan - BASc, MASc, PhD
Rubisov, Dmitri - ME, PhD
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.

Normal Program Length – 3 sessions (full-time 1-year MSc); 4 sessions (full-time 16-month MSc); 6 sessions (full-time 2-year MSc); 6 sessions (part-time)

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
- 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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.

PhD students are expected to attend and contribute to seminars in the research areas.

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
MAT 1507H   Asymptotic and Perturbation Methods
MAT 1508H   Techniques of Applied Mathematics
MAT 1520H   Wave Propagation
MAT 1525Y   Inverse Problems of X-Ray and Radar Imaging
MAT 1638H   Fluid Mechanics
MAT 1639Y   Topics in Fluid Mechanics
MAT 1700H   General Relativity
MAT 1705H   Foundations of Classical Mechanics
MAT 1710H   Group Theory and Quantum Mechanics
MAT 1711H   Topics in Quantum Mechanics
MAT 1722H   C* Algebras and Quantum Mechanics
MAT 1723H   Foundations of Quantum Mechanics
MAT 1724H   Functional Analysis in Quantum Mechanics
MAT 1725Y   Scattering Theory
MAT 1739H   Topics in Mathematical Physics
MAT 1750H   Computational Mathematics
MAT 1751H   Topics in Computational Mathematics
MAT 1760H   Computer Algebra
MAT 1761H   Algorithms in Algebraic Geometry
MAT 1839H   Optimization and Control
MAT 1840H   Control Theory
MAT 1843H   Mathematics of Pattern Recognition
MAT 1844H   Nonlinear Dynamical Systems
MAT 1845H   Dynamical Systems
MAT 1846H   Topics in Dynamical Systems
MAT 1847H   Holomorphic Dynamics
MAT 1855H   Mathematical Economics
MAT 1856H   Mathematical Finance
MAT 1880H   Case Studies in Applied Mathematics

Individual Reading Courses

MAT 1900Y   Readings in Pure Mathematics
MAT 1901H   Readings in Pure Mathematics
MAT 1902H   Readings in Pure Mathematics
MAT 1950Y   Readings in Applied Mathematics
MAT 1951H   Readings in Applied Mathematics
MAT 1952H   Readings in Applied Mathematics
MAT 2000Y   Readings in Theoretical Mathematics
MAT 2001H   Readings in Theoretical Mathematics I
MAT 2002H   Readings in Theoretical Mathematics II

MSc Project

MAT 4000Y[+]   Supervised Research Project

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Graduate Faculty

Full Members

Alexakis, Spyridon - BA, PhD
Angel, Omer - PhD
Arkhipov, Sergey - PhD
Arthur, James - BSc, MSc, PhD
Bar-Natan, Dror - BSc, PhD *(Coordinator of Graduate Studies)*
Bierstone, Edward - BSc, MA, PhD
Binder, Ilia - PhD
Bland, John - BSc, MSc, PhD
Blomer, Valentin - PhD
Bloom, Thomas - BSc, MA, PhD
Buchweitz, Ragnar-Olaf - ScD, DRHAB
Burchard, Almut - MS, PhD
Choi, Man-Duen - BSc, MSc, PhD
Colliander, James - BA, MS, PhD
Cook, Stephen - BS, AM, PhD
Del Junco, Andres - BSc, MSc, PhD
Derzko, Nicholas - BSc, PhD
Elliott, George - BSc, MSc, PhD
Friedlander, John - BSc, BS, MA, PhD
Goldstein, Michael - BA, MMath, ScD, PhD
Graham, Ian - BSc, ScD
Gualtieri, Marco - BSc, DPhil
Guth, Lawrence - BS, PhD
Ivrii, Victor - MA, PhD, DSc
Jeffrey, Lisa - BA, MA, PhD
Jerrard, Robert - AB, PhD
Kamnitzer, Joel - BMath, PhD
Kapovitch, Vitali - BS, PhD
Karshon, Yael - PhD
Khanin, Konstantin - PhD
Khesin, Boris - MS, PhD
Khovanskii, Askold - PhD, DSc
Kim, Henry - BSc, PhD
Kudla, Stephen - BA, MA, PhD
Lorimer, Joseph - BSc, MSc, PhD
McCann, Robert - BS, PhD
Meinrenken, Eckhard - PhD
Mendelsohn, Eric - BSc, MSc, PhD
Milman, Pierre - MA, PhD
Murnaghan, Fiona - BSc, MSc, PhD
Murty, Vijayakumar - BSc, PhD *(Chair & Graduate Chair)*
Nabutovsky, Alexander - MSc, PhD
Nachman, Adrian - BSc, MA, PhD
Pugh, Charles - PhD
Pugh, Mary - BA, MS, PhD
Quastel, Jeremy - BSc, MS, PhD
Repka, Joseph - BSc, PhD
Rosenthal, Jeffrey - PhD
Rosenthal, Peter - BS, MA, PhD
Rotman, Regina - BA, PhD
Scherk, John - BSc, MSc, DPhil
Seco, Luis - PhD
Selick, Paul - BSc, MSc, PhD
Shub, Michael - AB, MA, PhD
Sigal, Israel Michael - BA, PhD
Sulem, Catherine - MMath, PhD

Szegedy, Balazs - MS, PhD
Tall, Franklin - AB, PhD
Tanny, Stephen - BSc, PhD
Todorcevic, Stevo - PhD
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, Fell Royal Society
 Canada
Greiner, Peter - BSc, MA, PhD
Halperin, J Stephen - BSc, MSc, PhD, Fell Royal Society
 Canada
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

Associate Members
Pete, Gabor Zoltan - 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. **Health Care, Technology, and Place**
   - Mechanical and Industrial Engineering, PhD
4. **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/contact/grad.php
E-mail: grad.admission@mie.utoronto.ca
Telephone: (416) 978-8823
Fax: (416) 978-3453

Department of Mechanical and Industrial Engineering
University of Toronto
Mechanical Engineering Building
5 King's College Road
Toronto, Ontario M5S 3G8
Canada

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.

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.
- MASc students, in their first year of study, are required to attend at least 70% of seminars that are part of the MIE Seminar Series. MASc students who complete the requirement will receive credit for SRM 3333Y *Master's Seminar Series*.

Normal Program Length – 6 sessions (full-time)

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.

Program Requirements

- 5.0 full-course equivalents (FCE) or 3.5 FCE plus a supervised project. A majority of the courses must be taught by the Department of Mechanical and Industrial Engineering.
- The program may be taken on a full-time or part-time basis.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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:
  - **Master's degree.** Appropriate University of Toronto master's degree, or its equivalent from a recognized university, with a minimum B+ average.
  - **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.

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:
  - students with a **master's degree** normally are required to complete 2.5 full-course equivalents (FCE) and a thesis.
  - **Direct-entry** students admitted with a bachelor's degree are required to complete 4.0 FCE plus a thesis.
  - **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.
- PhD students in their first and second years of study are required to attend at least 70% of seminars that are part of the MIE Seminar Series. PhD students who complete the requirement will receive credit for SRD 4444Y *Doctoral Seminar Series*.
- Each PhD student must pass a qualifying examination, a seminar presentation, additional annual progress meetings, 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.

Normal Program Length – 4 years (full-time PhD); 5 years (transfer or direct-entry)

Course List

See the departmental Web site for a schedule of available courses.

Robotics, Dynamic Systems and Controls

MIE 1001H	Dynamics II
MIE 1005H	Theory of Vibrations I
MIE 1009H	Applied Acoustics
MIE 1062H	Robot Kinematics and Dynamics
MIE 1064H	Control Analysis Methods with Applications to Robotics
MIE 1067H	Automation System Design and Integration
MIE 1068H	Applied Nonlinear Control
MIE 506H	MEMS Design and Microfabrication

Thermal Sciences

MIE 1101H	Thermodynamics II
MIE 1107H	Statistical Thermodynamics
MIE 1110H	Nonequilibrium Thermodynamics
MIE 1111H	Conduction Heat Transfer
MIE 1115H	Heat Transfer with Phase Change
MIE 1118H	Partially Ionized Gases
MIE 1122H	Combustion Engine Processes
MIE 1123H	Fundamentals of Combustion
MIE 1126H	Diffusion-Wave Fields: Mathematical Methods and Analytical Case Studies in the Thermal, Electronic and Biomedical Sciences
MIE 1127H	Engineering Applications of Sound, Electromagnetic, Thermal and Photonic Waves
MIE 1128H	Materials for Clean Energy Technologies
MIE 515H	Alternative Energy Systems
MIE 516H	Combustion and Fuels
MIE 517H	Fuel Cell System

Fluid Mechanics

MIE 1201H	Fluid Mechanics III
MIE 1202H	Fluid Mechanics IV
MIE 1206H	Non-Newtonian Fluid Mechanics
MIE 1207H	Structure of Turbulent Flows
MIE 1210H	Computational Fluid Mechanics and Heat Transfer
MIE 1212H	Convective Heat and Mass Transfer
MIE 1220H	Environmental Fluid Dynamics
MIE 1222H	Multiphase Flows
MIE 1232H	Microfluidics and Laboratory-on-a-Chip Systems

Applied Mechanics

MIE 1301   Solid Mechanics
MIE 1303   Fracture Mechanics
MIE 1355H   Ultrasonic Non-Destructive Testing
MIE 1357H   Laser Biomedical Photoacoustics, Biothermophotonics and Imaging
MIE 1359H   Engineering Cell Biology and Micro-Nanoengineered Platforms
MIE 518H   Fundamentals of Aircraft Design
MIE 539H   Biomechanics II

Human Factors/Ergonomics

MIE 1402H   Experimental Methods in Human Factors Research
MIE 1403H   Analytical Methods in Human Factors Research
MIE 1406H   Cognitive Work Analysis
MIE 1407H   Engineering Psychology and Human Performance
MIE 1409H   Design of Ecological Interfaces
MIE 1411H   Design of Work Places
MIE 1412H   Human-Automation Interaction

Information Systems

MIE 1501H   Information Systems I: Data and Knowledge Modelling
MIE 1505H   Enterprise Modelling
MIE 1509H   Seminar on Approximate Reasoning and Knowledge-Based Systems
MIE 1510H   Formal Techniques in Ontology Engineering
MIE 1512H   Research Topics in XML Retrieval

Operations Research

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 1609H   Multiple Criteria Decision Making
MIE 1613H   Discrete Event Simulation
MIE 1615H   Stochastic Dynamic Programming
MIE 1616H   Healthcare Management
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

MIE 1706H   Manufacturing of Cellular and Microcellular Polymers
MIE 1713H   Analysis and Design of Joints in Manufactured Products
MIE 1716H   Design and Computer-Aided Engineering
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 1727H   Quality Assurance I
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 1754H   Laser Applications in Manufacturing
MIE 1755H   CAE Technologies in Automotive Engineering
MIE 1756H   Materials in Automotive Design
MIE 540H   Product Design

Mathematical Modelling and Analysis

MIE 1801H   Engineering Analysis III
MIE 1804H   The Finite Element Method in Mechanical Engineering
MIE 1805H   Analysis of Engineering Data
MIE 1807H   Principles of Measurements
MIE 1809H   Advanced Mechatronics

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

APS 1001H   Project Management
APS 1002H   Financial Engineering
APS 1003H   Professional Education
APS 1004H   Human Resources Management
APS 1005H   Operations Research for Engineering Management
APS 1088H   Entrepreneurship and Business for Engineers
APS 1012H   Management of Innovation in Engineering
APS 1201H   Topics in Engineering and Public Policy
APS 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)
MIE 7001H   Departmental Seminar in Mechanical and Industrial Engineering

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
Balcioglu, Ahmet Baris - BS, MS, PhD
Bazylak, Aimy - PhD
Beck, J. Christopher - BSc, MSc, PhD
Ben Amara, Foued - 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
Chan, Timothy - BSc, PhD
Chandra, Sanjeev - PhD
Chignell, Mark - BSc, PhD
Cleghorn, William - BASc, MASc, PhD
Consens, Mariano - BEng, MSc, PhD
Donmez, Birsen - BS, MS, PhD
Ethier, C Ross - BSc, MMath, SM, PhD
Fox, Mark - BSc, PhD
Goldenberg, Andrei - BSc, MSc, PhD
Gruninger, Michael - BSc, MS, PhD
Guenther, Axel - DipIng, 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
Makis, 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
Mostaghimi, Javad - PhD
Naguib, Hani - BSc, ME, PhD, Reg Professional Engineer
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, BME, MEng, 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
Kolodny, 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
Acosta, Edgar Joel - BS, MS, PhD
Borairi, Ma - PhD
Chau, Tom - PhD
Croft, Elizabeth - BASc, MASc, PhD
Dincer, Ibrahim - BSc, MSc, PhD
Drory, Asher - BA, MBA, MA
Farkas, Kornel - PhD
Frances, Daniel - BASc, MASc, PhD, Reg Professional Engineer
Maev, Roman - PhD
Metcalfe, Murray - MS, PhD
Moles, Michael - BA, MBA, PhD
Moreau, Christian - PhD
Prasad, Eswar - PhD
Rizvi, Ghaus - PhD
Rogers, John - BSc, MS, PhD
Sefiane, Khellil - DPhil
Topaloglou, Thodoros - BSc, 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 fields – Cellular 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, NMR spectroscopy and electron microscopy, 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

Department of Medical Biophysics
Ontario Cancer Institute
University of Toronto
Room 7-413
610 University Avenue
Toronto, Ontario M5G 2M9
Canada

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.

Normal Program Length – 6 sessions (full-time)

Doctor of Philosophy

Minimum Admission Requirements
- Applicants are admitted via one of two routes
  - Reclassification from the MSc program.
  - 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.

Normal Program Length – 4 years (full-time PhD); 5 years (transfer from MSc)

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 1015Yº	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

ºCourses which may continue over a program. The course is graded when completed.

Graduate Faculty

Full Members

Adamson, Susan - BSc, MSc, MD, PhD
Archer, Michael - MA, MSc, PhD, DSc, Earle W McHenry Chair in Nutritional Sciences
Arrowsmith, Cheryl - BSc, PhD
Attisano, Liliana - BSc, PhD
Aubin, Jane - BSc, PhD
Barber, Dwayne - BSc, PhD *(Vice-Chair & Graduate Vice-Chair)*
Benchimol, Samuel - BSc, PhD
Ben-David, Yacov - BSc, MSc, PhD
Berinstein, Neil - MD
Bernstein, Alan - MD
Bjerknes, Matthew - BSc, MSc, PhD
Boyd, Norman - MD
Bristow, Robert Glen - MD, PhD
Brock, Kristy - PhD
Bronskill, Michael - BSc, MSc, PhD
Burns, Peter - BSc, BSc, MSc, PhD *(Chair & Graduate Chair)*
Chakrabartty, Avijit - BSc, MSc, PhD *(Coordinator of Graduate Studies - Biology)*
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
Hynynen, Kullervo - BSc, MS, PhD
Ikura, Mitsuhiko - BSc, PhD
Iscove, Norman - MD, PhD
Jaffray, David - BSc, PhD
Julius, Michael - BSc, PhD
Jurisica, Igor - PhD
Kamel-Reid, Suzanne - BA, MA, PhD
Keller, Gordon - BSc, PhD
Kerbel, Robert - BSc, PhD
Khokha, Rama - BSc, MSc, PhD
Koch, Christine - BSc, MD, PhD
Kolios, Michael - BSc, MSc, PhD
Letarte, Michelle - BSc, PhD
Lilge, Lothar - DIPPHY, PhD *(Coordinator of Graduate Studies - Physics)*
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
Moghal, Nadeem - 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
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
Richardson, Christopher - BSc, MSc, PhD
Rose, David - BA
Ross, Bernard - DipIng, 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, MASc, 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
Wouters, Bradly - MSc, PhD
Wright, Graham - BSc, MSc, PhD
Yaffe, Martin - BSc, MSc, PhD
Zacksenhaus, 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
Till, James - BA, MA, PhD
Whitmore, Gordon - PhD

Associate Members
Ailles, Laurie - PhD
Caldwell, Curtis - BSc, MSc, PhD
Chen, Josette - BSc, MA, PhD
Cheng, Hai-Ling - BSc, MS, PhD
Chopra, Rajiv - PhD
Cunningham, Charles - BSc, MSc, PhD
Gauthier, Mona L. - BSc, MS, PhD
Goertz, David - MSc, PhD
Kabani, Noor - BSc, MS, MSc, PhD
Kislinger, Thomas - PhD
Lerch, Jason - BA, PhD
Macgowan, Christopher - BSc, MSc, PhD
Martin, Lisa - BSc, MSc, DPhil
Michaels, Howard - PhD
Okada, Hitoshi - MD, PhD
Pang, Geordi - PhD
Pugachev, Andrei - MSc, PhD
Reedijk, Michael - BSc, MSc, MD, PhD
Stefanovic, Bojana - BASc, PhD
Trudel, Suzanne - MSc, MD
Vaziri, Homayoun - BSc, PhD
Woo, Minna Nancy - MD

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. **Dynamics of Global Change**
   - Medical Science, MSc, PhD
9. **Environment and Health**
   - Medical Science, MSc, PhD
10. **Genome Biology and Bioinformatics**
    - Medical Science, PhD
11. **Health Care, Technology and Place**
    - Medical Science, PhD
12. **Health Services and Policy Research**
    - Medical Science, MSc, PhD
13. **Knowledge Media Design**
    - Medical Science, MSc, PhD
14. **Neuroscience**
    - Medical Science, MSc, PhD
15. **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.jointcentreforbioethics.ca/education/mhsc.shtml
E-mail: carmen.alfred@utoronto.ca
Telephone: (416) 978-0871
Fax: (416) 978-1911

Joint Centre for Bioethics (JCB)
University of Toronto
155 College Street, Suite 754
Toronto, Ontario M5T 1P8
Canada

Biomedical Communications Program
Web: www.bmc.med.utoronto.ca/BMC/
E-mail: bmc.info@utoronto.ca
Telephone: (905) 569-4849
Fax: (905) 569-4847

Institute of Medical Science
Faculty of Medicine
CCT Room 3073b
3359 Mississauga Road North
Toronto, Ontario L5L 1C6
Canada

Medical Radiation Sciences
Web: www.dro.facmed.utoronto.ca/infor/prospective/
mhsmrs.htm
E-mail: pamela.catton@rmp.uhn.ca
Telephone: (416) 978-6172
Fax: (416) 971-2110

Medical Radiation Sciences Graduate Program
Department of Radiation Oncology
University of Toronto
105-150 College Street
Toronto, Ontario M5S 3E2
Canada

Medical Science Program
Web: www.ims.utoronto.ca
E-mail: dir.medscience@utoronto.ca
Telephone: (416) 978-5012
Fax: (416) 971-2253

Institute of Medical Science
Room 7213, Medical Sciences Building
1 King's College Circle
University of Toronto
Toronto, Ontario M5S 1A8
Canada

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:
  o A current curriculum vitae;
  o Original university academic transcripts;
  o A letter of intent or statement of professional goals;
  o Three letters of reference;
  o 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.

Normal Program Length – 6 sessions (full-time)

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

Normal Program Length – 6 sessions (full-time)

Course List
Consult Faculty each session regarding course offerings.

Required Courses
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
MSC 2009H   Ethics and Professionalism in Biomedical Communications
MSC 2012H   Neuroanatomy for Visual Communication
MSC 2013Y   Master's Research Project and Paper
MSC 2018H   Visual Representation of Processes in Human Pathology

Elective Courses
Students are encouraged to take at least one of their electives in a graduate program other than Biomedical Communications.

MSC 2015H   Interpretive Visualization: Cinematic Design and Preproduction
MSC 2016H   Visualization Methods
MSC 2017H   Visualization Technology
MSC 2006H   Advanced Media Design Technologies
MSC 2007H   Visual Synthesis of Medical/Scientific Process
MSC 2008H   Community-Centred Design Research
MSC 2011H   Special Topics in Biomedical Communications

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 completed a recognized 4-year bachelor's degree in Medical Radiation Sciences or its equivalent
- 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:
  o three letters from professional referees (academic, professional or specific - see below)
  o a letter of intent
  o updated CV
  o 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:
  o **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 of 93 on the internet-based test and 22 on the writing/speaking sections.

° Courses which may continue over a program. The course is graded when completed.

- o **Michigan English Language Assessment Battery (MELAB)**: minimum score of 85.
- o **International English Language Testing System (IELTS)**: minimum score of 7.0.
- o **Certificate of Proficiency in English (COPE)**: minimum score of 76.
- o **Academic Preparation Course**, International ESL Program, School of Graduate Studies: minimum final grade of B in Level 60.

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

Normal Program Length – 6 sessions (full-time)

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

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

o Courses which may continue over a program. The course is graded when completed.

take undergraduate or graduate courses considered necessary to provide a proper basis for their research.
- A- average in final year of undergraduate study and an A- cumulative average over three of the four total years of study.
- Applicants whose primary language is not English, and who graduated from a university where the language of instruction was not English, must demonstrate facility in the **English language** through the successful completion of one of the following English language proficiency tests:
  - o **Test of English as a Foreign Language (TOEFL)**: a minimum score of 600 on the paper-based test and 5 on the Test of Written English (TWE); or a minimum score of 93/120 on the internet-based test and 22/30 on the writing and speaking sections.
  - 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

- course work and research
- 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

Normal Program Length – 6 sessions (full-time)

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:
  - o **Test of English as a Foreign Language (TOEFL)**: a minimum score of 600 on the paper-based test and 5 on the Test of Written English (TWE); or a minimum score of 93/120 on the internet-based test and 22/30 on the writing and speaking sections.
  - 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.
- students are accepted via one of three routes:
  - o after **completing** MSc degree (with a MSc thesis)

with at least A- standing from a recognized university.

- o **transfer from the IMS MSc** program. Outstanding students may be considered for reclassification into the PhD program without writing a MSc thesis.
- o **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:
  - o **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*.
  - o **Transfer students from the IMS MSc** must complete 1.0 graduate FCE with a minimum A- average, plus MSC 1010Y° *MSc Student Seminars*. If recommended by the Program Advisory Committee, the student will be evaluated in an oral transfer examination within 18-21 months of initial graduate registration. Successful applicant will enter the PhD program and complete a minimum of 2.0 graduate FCE (including those already completed in the MSc), plus MSC 1011Y° *PhD Student Seminars*. Alternatively, the Exam Committee may decide that the student must complete the MSc degree before being considered for admission to the PhD program.
  - o **Direct-entry** students must pass a qualifying examination within 18-21 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.
- at the end of year three (year four for direct-entry PhD students), students must have completed all program requirements exclusive of the thesis research to achieve candidacy.
- students are expected to be on campus and participating full time until all program requirements are completed.

Normal Program Length – 4 years (full-time PhD); 5 years (transfer from MSc and direct-entry)

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 in Translational Research (Credit/No Credit)
MSC 1011Y° PhD Student Seminars in Translational Research (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 1086H Integrative Perspectives in Consciousness and Self-Awareness
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
Agur, 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
Bagby, Michael - PhD
Bagli, Darius - BS, MD
Baker, Andrew - MD, MD
Baker, G. Ross - AB, MA, PhD
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
Belsham, Denise - PhD
Bendeck, Michelle - BSc, PhD
Bhavnani, Bhagu - BSc
Bierman, Arlene - MS, MD
Black, Sandra - BSc, MD
Blanchard, Ray - MA, PhD
Bocking, Alan - MD
Bogoch, Earl - BA, MSc, MD
Bombardier, Claire - MA, MD
Boydell, Katherine Mary - BA, MHSc, PhD
Boyle, Joseph - BA, PhD
Bradley, T. Douglas - BA, MD
Branch, Donald - BA, BSc, PhD
Bremner, Roderick Angus - BSc, PhD
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
Cattral, Mark - MSc, BScMed, MD
Cattran, Daniel - MD
Chan, Helen - MBBS

Chapman, Kenneth - MSc, MD
Chen, Robert - MB
Cheung, Angela - BA, MD, PhD
Cheyne, Douglas - BSc, MA, PhD
Chiarelli, Anna Maria - BSc, MHSc, DPhil
Chow, Chung-Wai - MD, PhD
Christensen, Bruce - BA, PhD
Clarke, David - PhD
Cohen, Zane - BA, MD
Cole, Donald - MSc, 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, PhD
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, MDCH
Downey, Gregory - BSc, MD
Drake, James - BSE, MSc, MBChB
Drucker, Daniel - MD
Dubrowski, Adam - BSc, MSc, PhD
Duchen, Suzanne - MBChB
Dunn, James - AB, AM, PhD
Einstein, Gillian - AB, PhD
Etchells, 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
Fleshner, Neil - MPH, LRCP, MD
Flint, Alastair - CHB
Floras, John - MD, DPhil
Forrest, Christopher - BSc, MSc, MD
Frank, John - BSc, MSc, MD
Frankland, Paul - MA, PhD
Freedman, Morris - BSc, MD
Fremes, Stephen - BA, MSc, MD
Gaisano, Herbert - BS, MD
Gallinger, Steven - MSc, MD
Garfinkel, Paul - MSc, MD
George, Tony - BSc, MD

Giacca, Adria - MD
Gilbert, Richard - MBBS, PhD
Gladman, Dafna - MD
Glazier, Richard - MPH, 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
Gross, Gil - MD
Guha, Abhijit - BSc, MSc, MD
Gupta, Neeru - BM
Hannah, Mary - BSc, MDCM, MS
Harrison, Robert - PhD, DSc
Heathcote, Elizabeth Jenny - MBBS, MD, PhD
Hebert, Philip - BA, MA, MD, PhD
Hedley, David - MD
Heon, Elise - LMCC, MD
Herridge, Margaret - MD
Herrmann, Nathan - MD
Heslegrave, Ronald - PhD
Hinek, Aleksander - MD, PhD
Hogg, David - BSc, MD
Holness, D Linn - MHSc, MD
Horner, Richard - BSc, PhD
Hough, Margaret - BSc, PhD
Hu, Jim - BSc, PhD
Hudson, Christopher - BSc, PhD
Husain, Mansoor - MB, MD
Hutchison, William - BSc, MSc, PhD
Hwang, Paul Als - BSc, MSc, MD
Inman, Robert - BA, MD
Irwin, Meredith - MD
Jadad, Alejandro - MD, DPhil
Jaffray, David - BSc, PhD
Jarvi, Keith - MD
Jenkins, David JA - BA, MA, MD, MB, BS, PhD, Canada
  Research Chair
Jewett, Michael - LMCC, MD
Jha, Prabhat - DrMed, PhD
Jin, Tianru - PhD
Jones, Nicola - MD
Josselyn, Sheena - MA, PhD
Kain, Kevin - MD
Kamel-Reid, Suzanne - BA, MA, PhD
Kaplan, Allan - AA, BA, MSc, MD
Kaplan, David - BA, PhD
Kapur, Shitij - DPsych, MBBS, PhD
Kapus, Andras - MD, PhD
Katz, Joel - PhD
Kaul, Rupert - MD, PhD
Kavanagh, Brian - BSc, BSc, MBChB, MBChB
Keating, Armand - BSc, MD
Kelvin, David - MASc, PhD
Kennedy, James - MD
Kennedy, Sidney - DPsych, MBChB, BAO
Keshavjee, Shafique - BA, MSc, LMCC, MD
Kim, Peter - MDCM, PhD
Kish, Stephen John - BSc, MSc, PhD

Klip, Amira - ScD
Klotz, Laurence - LMCC, MD
Koren, Gideon - MD
Kucharczyk, Walter - MD
Kuebler, Wolfgang - DrMed, PhD
Laupacis, Andreas - MD
Lavery, James - BA, BS, PhD
Lazarus, Alan - PhD
LeBlanc, Vicki - PhD
Levine, Brian - BA, MA, PhD
Levinson, Wendy - BSc, MD
Levitan, Robert - MSc, MDCM
Levitt, Anthony - MBBS, DGO, MB
Levy, Gary - BSc, MD
Lewis, Gary - BCH, MBChB
Li, Ren-Ke - MHSc, MSc, MD, PhD
Liles, W. Conrad - MD, PhD
Lindsay, Thomas - BSc, MSc, MDCM
Lingard, Lorelei - PhD
Links, Paul - MD
Liu, Fei-Fei - MD
Liu, Mingyao - MSc, MD
Liu, Peter - MD
Locker, David - BDS, PhD
Logan, Alexander - MD
Lovett, Maureen - BSc, MSc, PhD
Lozano, Andres - BSc, LMCC, MD, BScMed, PhD
Lu, Wei Yang - MSc, MD, PhD
Lumsden, Charles - BSc, MSc, PhD
Lye, Stephen - BSc, PhD
MacDonald, Kelly - MD
Macdonald, Robert - MD, PhD
MacDonald, Russell - MD
Mak, Tak - BSc, MSc, PhD
Maki, Brian - BASc, MASc, PhD, Reg Professional
  Engineer
Malkin, David - MD
Marrett, Loraine - BMath, PhD
Marsden, Philip - MD
Marshall, John - MD
Martin, Douglas - BSc, PhD
McCrindle, Brian - MD
McDonald, Lynn - PhD
McIntosh, Anthony Randal - BSc, MSc, PhD
McIsaac, Warren - MSc, MD
McKee, Nancy - MD
McKeever, Patricia - BN, MSA, DPhil, RN
McKneally, Martin - MD, PhD
Mclaughlin, Peter - MD
McNamara, Patrick - MB
Messner, Hans - MD, PhD
Meyer, Jeffrey - MD
Meyn, Michael - MD
Mikulis, David - BS, MD
Milgram, Norton - BSc, MSc, PhD
Miller, Freda - BSc, PhD
Miller, Judith - MD
Millson, Margaret - BSc, MHSc, MD
Minassian, Berge - MDCM
Minden, Mark - MD, PhD
Moe, Gordon - MD

Moody, Alan - BA, MA, MBBS
Morrison, Laurie - BSc
Morshead, Cindi Marie - BS, PhD
Mount, Howard - BSc, PhD *(Coordinator of Graduate Studies)*
Mulsant, Benoit - MD
Naglie, I. Gary - BSc, MDCM
Narod, Steven - BSc, MD
Noh, Samuel - BA, MA, PhD
Olivieri, Nancy - MD
Olmsted, Marion - BSc(CD), MA, PhD, PhD
Opas, Michal - MSc, PhD
Orser, Beverley - MD
Osborne, Lucy - PhD
Palaniyar, Nades - MSc, PhD
Palmert, Mark - MD
Pang, Cho - BSc, MSc, PhD
Parker, John - BA, MD
Parker, Thomas - MD
Parkin, Patricia - BSc, MD, MD
Paterson, Andrew - MBChB
Paus, Tomas - PhD
Pawson, Anthony - PhD
Pei, York Po-Chee - MD
Pennefather, Peter - BSc, PhD
Petronis, Arturas - MD
Pignol, 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, Leticia - BSc, MSc, PhD
Rao, Vivek - LMCC, MD, PhD
Ravindran, Arun - PhD
Read, Stanley - MSc, MD, PhD
Redelmeier, Donald - MS, MD
Reeves, Scott - BSc, MSc
Regehr, Cheryl - AB, MA, PhD
Regehr, Glenn - BA, PhD
Reid, Denise - BSc(OT), MEd, PhD
Reithmeier, Reinhart - BSc, PhD
Remington, Gary - MD, PhD
Renwick, Rebecca - DIPOT, BA, PhD
Reznick, Richard - MEd, MD
Richards, Robin - BA, MD
Roder, John - PhD
Rodin, Gary - BSc, MD
Romans, Sarah - MD
Rootman, David - BA, MD
Rosenblum, Norman - MD
Ross, Bernard - DipIng, PhD
Ross, Heather - BSc, MD
Rotin, Daniela - 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
Salit, Irving - BSc, MDCH
Salter, Michael - MD, PhD
Schachar, Russell James - MD
Schemitsch, Emil - MD
Scherer, Stephen - PhD
Schimmer, Aaron - MD, PhD
Scholey, James - MD
Schuh, Andre - MD
Semple, John - BSc, MSc, MD
Semple, John Wesley - PhD
Shapiro, Colin - BSc, PhD
Sharpe, James - MD
Sherman, Philip - MD
Shoichet, Molly - PhD
Shojania, Kaveh - BSc, MD
Silver, Ivan - BSc, MD
Silverberg, Mark - MD
Silverman, Earl - MD
Silverman, Frances - PhD
Silverman, Melvin - BSc, MDCH
Siminovitch, Katherine - MD
Singer, Peter - MPH, MD
Slutsky, Arthur - BASc, MASc, MD
Snead III, Carter - BS, MD, MD
Stanford, William - BA, PhD
Steiner, Meir - MD, PhD
Stevens, Bonnie - BSc, MSN, DPhil
Stewart, Donna - DPsych, MD
Stewart, Duncan - MDCH
Strafella, Antonio - MD, PhD
Strauss, Bradley - MD
Streiner, David - PhD
Strother, Stephen - BSc, MS, PhD
Swallow, Carol - BA, MD, PhD
Sweezey, Neil - BSc, MD, MD
Tannock, Rosemary - BSc, MA, PhD
Tanswell, Alan - BS, MBBS, MBBS
Tarlo, Susan - MBBS
Tator, Charles - MA, MD, PhD
Taylor, Ian - MD, MBChB
Taylor, Margot - BA, MA, PhD
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 - BA, MD, 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, MHSc
Vitkin, Alex - BASc, MASc, PhD
Waddell, Thomas - MSc, CSPO, LMCC, MD, PhD
Wald, Robert - BSc, MD

Warde, Padraig - MB
Warsh, Jerry - 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
Wong, Chong Shun - MD
Wong, Ming F Agnes - DOMS, MD, PhD
Woo, Minna Nancy - MD
Woodside, Blake - BSc, MSc, MD
Wright, James - BA, LMCC, CSPO, MPH, MD
Wunder, Jay - BA, MSc, LMCC, MD
Yang, Burton - BSc, MSc, PhD
Yau, Terrence - BA, MSc, MDCM, MDCM
Yee, Albert - MSc, LMCC, MD
Yeger, Herman - BSc, MScPhm, PhD
Yeo, Erik - MD
Yeung, Rae - DrMed, MD
Yoshida, Karen - BSc, BPHE, MSc, PhD
Young, Kue - DrMed, PhD
Yucel, Yeni - MD
Zhang, Haibo - MSc, PhD
Zhang, Li - MSc, MD, PhD
Zhang, Liang - PhD
Zhen, Mei - PhD
Zipursky, Robert - MD
Zwarenstein, Merrick - MPH, MMEd, MBChB

Members Emeriti
Badgley, Robin - BA, MA, PhD
Boyd, Norman - MD
Burnham, Willets - PhD
Clarke, Joe - MD
Friedland, Judith - BA, MA, PhD
Halperin, Mitchell - BSc, MD
Harvey, William - PhD
Mcculloch, Ernest - MD
Moldofsky, Harvey - MD
Salter, Robert - MDCH
Seeman, Mary - BA, MDCH, MD *(Coordinator of Graduate Studies)*
Siminovitch, Louis - BSc, BSc, PhD
Walfish, Paul - LMCC, MD

Associate Members
Advani, Andrew - MBChB, PhD
Al-Hesayen, Abdul - MD
Alibhai, Shabbir - MD
Alter, David - MD
Anastakis, Dimitrios - BSc, MEd, MD
Arnold, Paul - BSc, MD
Atri, Mostafa - MD

Aviv, Richard - MBChB
Backstein, David - MEd, MD
Bandiera, Glen - MD
Barker, Ruth - BSc
Barrera, Maria - MA, PhD
Batt, Jane - MD, PhD
Bayley, Mark - MD
Bezjak, Andrea - MS, MDCM
Blanchette, Victor - MBChB
Boileau, Isabelle - PhD
Bolderston, Amanda - MSc
Borschel, Gregory - BSc, DrMed
Bowman, Kerry - BA, BSW, MSW, PhD
Brent, Michael - MB
Bril, Vera - BSc, MD
Brock, Kristy - PhD
Cairney, John - PhD
Carter, Jacqueline - BA, MA, DPhil
Catton, Charles - MD
Chauhan, Vijay - MD
Cherney, David - MD, PhD
Crawley, Adrian - BA, PhD
Di Prospero, Lisa - MSc
Dick, Alexander - MD
Dror, Yigal - MD
Easterbrook, William - MD
Farhat, Walid - BSc, DrMed
Feld, Jordan - MPH, MD
Fortin, Paul - MPH, MD
Fyles, Anthony - MD
Gagliese, Lucia - BSc, PhD
Gillies, Carol - MSc
Ginsburg, Shiphra - MEd, MD
Godkin, Dianne - BScN, MN, PhD
Goltz, Herbert - BA, MA, PhD
Gordon, Karen - DPhil
Grantcharov, Teodor - DrMed, PhD
Grigoriadis, Sophie - MD, PhD
Haider, Masoom - BM, MD
Hamani, Clement - DrMed, PhD
Hare, Gregory - MD, PhD
Harnett, Nicole - BSc
Harrison, Christine - BA, MA, PhD
Harvey, Paula - BMedSc, PhD
Hassouna, Magdy - MSc, LMCC, LMCC, MBChB, PhD
Hellmann, Jonathan - DCH, MBChB, MBChB
Hitzler, Johann - MD, MD
Hodges, Brian - BA, MEd, MD
Hodgson, David - MD
Hofer, Stefan - MD, PhD
Howard, Andrew - BA, CSPO, MSc, LMCC, MD
Hutchison, Jamie - MD
Irish, Jonathan - MSc, MD
Jain, Umesh - MD
Jankov, Robert - MB
Jassal, Sarbjit Vanita - MD
Jenkinson, Jodie - BA, MSc
Kapral, Moira - MD
Karkouti, Keyvan - MD
Kassner, Andrea - MSc, PhD
Kertes, Peter - MD

Kingdom, John - DCH, MB, MD
Koeberle, Paulo - BS, PhD
Kulkarni, Abhaya - BSc, MD, PhD
Lang, Anthony - MD
Lax, Leila - BA, BSc, MEd
Lazar, Neil - BSc, MD
Le Foll, Bernard - DrMed
Lee, Warren - MD, PhD
Lemmens, Trudo - LLM, DCL
Leong-Poi, Howard - MD
Liu, Fang - PhD
MacRae, Helen - BSc, MA, MD
Mazierski, David - BSc
McCart, Judith Andrea - MSc, MD
McCartney, Colin - MBChB
Menard, Cynthia - BSc, MD
Milosevic, Michael - MD
Mizrahi, Romina - MD, PhD
Moller, Henry - BSc, MD
Monks, Ashley - BSc, MA, PhD
Nancekivell, Sharon - BA, BE, MA
Nanthakumar, Kumaraswamy - MD
Nathens, Avery - MPH, MD, PhD
Newton, Gary Evan - MD
Nolan, Robert - PhD
Nyhof-Young, Joyce - PhD
O'Connor, Paul - MD
Ostrowski, Mario - MD
O'Sullivan, Brian - MBChB
Ouellet, Doreen - BA, AB, MHSc
Pang, Elizabeth - PhD
Papsin, Blake Croll - BSc, MSc, MD
Rector, Neil - MA, MA
Reich, Heather - MDCM, PhD
Retnakaran, Ravi - MSc, MD
Richter, Peggy - MD
Rizoli, Sandro - LRCP, MD, PhD
Rosen, Cheryl - BSc, MD
Ross, Lori - PhD
Rotzinger, Susan - PhD
Saposnik, Gustavo - MSc, MD
Schuh, Suzanne - MD
Schwartz, Michael - MSc, MD
Scott, Jeremy - PhD
Secker, Barbara - BA, AM, PhD
Siewerdsen, Jeffrey - BA, MS, PhD
Silver, Frank - MD
Silversides, Candice - MSc, MD
Singer, Lianne - MD
Sixel, Katharina - PhD
Stergiopoulos, Vicky - MD
Strauss, John - MD
Strike, Carol - PhD, PhD
Strug, Lisa - BS, BA, SM, PhD
Szaszi, Katalin - MD, PhD
Tackett, Jennifer - BA, MA, PhD
Tandon, Anu - BSc, MD, BScMed
Tandon, Anurag - BSc, PhD
Thorsteinsdottir, Halla - PhD
Tobe, Sheldon - BSc, MD
Trudeau, Maureen - BSc, MA, MD

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
Witterick, Ian - DrMed
Wong, Rebecca - MBChB
Woolridge, Nicholas - BFA, BSc, BFA, MSc
Zadeh, Gelareh - BSc, DrMed, BScMed, DPhil

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 interdepartmental programs in the medieval period. Students are expected to cross the limits of traditional subjects, and research is especially encouraged in often-neglected boundary areas between traditional departments.

The Centre offers its students training in basic skills and tools in order to read the materials remaining from the medieval past and to explore them with learning and imagination. All students entering the Centre are asked to improve their proficiency in Latin before registration, since there are Medieval Latin requirements for all degrees. Examinations in Medieval Latin are set at the beginning of the fall session 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: http://medieval.utoronto.ca
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 a 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 enrolment 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.

Normal Program Length – 3 sessions (full-time, 1-year MA); 6 sessions (full-time, 2-year MA); 6 sessions (part-time)

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.

Normal Program Length – 4 years (full-time PhD)

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 1123H	The Art of the Medieval Book
FAH 1124H	Byzantine Church Decoration
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 1171H	Beginning of Modernism: From Images to Pictures
FAH 1200H	Crusader Art

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 5021H	Body and Text
COL 5086H	Literature, Culture and Contact in Medieval Iberia

East Asian Studies

EAS 1143Y	Civilization in Medieval China

English

ENG 1001H	Old English I
ENG 1002H	Old English II
ENG 1009H	Writing the Nation: Pre-Modern Histographies
ENG 1551H	The Canterbury Tales
ENG 2485	London Drama 1190-1590

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 1283H	Crusades, Conversion and Colonialization in the Medieval Baltic (joint graduate/undergraduate)
HIS 1293Y	Kievan 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 1029H	History of Italian Religious Language
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

JIF 1000H	Romance Philology I
JIF 1001H	Romance Philology II
JMT 1001H	Topics in the Ancient Philosophical Commentators (PR)

Medieval Studies

MST 1000Y	Introductory Medieval Latin

MST 1001Y Intermediate Medieval Latin
MST 1002H Topics in Medieval Latin Literature (PR)
MST 1013H Pre-Conquest Anglo-Latin Literature (PR)
MST 1016H Hagiography 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)
MST 1102H Practical Palaeography (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 1120H Literacy in Early Medieval Europe
MST 1121H Literacy in Late Antiquity (c.284-632)
MST 1210H Judeo-Christian Koine Greek (PR)
MST 1212H The Apocryphal Bible (PR)
MST 1371H Old English Philology: Grammar (PR)
MST 1379H The Blickling Homilies (PR)
MST 1381H Homilies of the Vercelli Book (PR)
MST 1384H The Exeter Book of Old English Verse (PR)
MST 1392H Editing and Appreciating Wulfstan's Prose (PR)
MST 1398H Alfredian Prose (PR)
MST 1425H Medieval Magic: Predicting the Future and Influencing Events (PR)
MST 2001H Old Saxon
MST 2005H Medieval German Heroic Epic (PR)
MST 2006H Wolfram von Eschenbach: *Parzival* (PR)
MST 2010Y Old Norse
MST 2015H,Y Studies in Old Norse Texts (PR)
MST 2017H The Sources of Norse Myths (PR)
MST 2030Y Old and Middle Irish
MST 2031H Early Irish Saga (PR)
MST 2032H Medieval Irish Poetry 500-1600 (PR)
MST 2033H Textual Studies in Medieval Irish Poetry (PR)
MST 2034H Introduction to Early Irish Law (PR)
MST 2038H Medieval Brittany (PR)
MST 2039H Saints, Monasteries, and Heretics in Medieval Brittany
MST 2040H Beginnings of Medieval Rhetoric and Poetics (PR)
MST 2048H Music in Medieval Life
MST 2050Y Middle Welsh
MST 2055Y Studies in Middle Welsh Texts (PR)
MST 3021H Boethius (PR)
MST 3022H Consolation Through the Ages: Later Medieval Approaches to Boethius's *Consolation of Philosophy* (PR)
MST 3025H The Medieval Alexander (PR)
MST 3101H Current Theory and Medieval Texts: An Introduction
MST 3131H Troubadours and Trouvères
MST 3140Y Medieval Catalan Language and Literature

MST 3150H Medieval French Epic (PR)
MST 3152H Introduction to Old Occitan (PR)
MST 3153H Old Occitan Trobador Poetry (PR)
MST 3154H British History in French: Wace, Brut (PR)
MST 3155H Chrétien de Troyes, Perceval (PR)
MST 3156H Charlemagne: Facts and Legends
MST 3157H Old French and Old Occitan Crusade Epics (PR)
MST 3158H The Roman de la Rose and Medieval Allegory (PR)
MST 3162H Boccaccio and Chaucer
MST 3201H Medieval Social History
MST 3203H Topics in Medieval Economic History
MST 3204H Marxism and Premodern History
MST 3205H Violence in Medieval Society
MST 3210H Medieval Spain (PR)
MST 3223H Medieval and Early Modern Inquisitions
MST 3225H Jews and Christians in Medieval and Renaissance Europe
MST 3230H The Common Law of Medieval Europe
MST 3235H Communal Florence, 1150-1530
MST 3236H The Papal Monarchy
MST 3242H The Carolingians and the Birth of Europe
MST 3243H Dark Age Italy
MST 3244H Saints and their Cities in Early Medieval Italy
MST 3245H Pharmacy from Antiquity to the Early Middle Ages
MST 3246H Pharmacy from Early Islam to Medieval and Renaissance Europe
MST 3262H Monastic Identities
MST 3285H Naming the Rose: Intellectual History of the Later Middle Ages (PR)
MST 3301H Themes in Medieval Philosophy
MST 3306H Augustine on Will and Grace (PR)
MST 3307H Augustine in Transition (PR)
MST 3308H The Philosophy of Peter Abelard
MST 3311H Topics in Medieval Metaphysics (PR)
MST 3321H Philosophy of Mind in the Middle Ages (PR)
MST 3322H William of Ockham (PR)
MST 3325H Introduction to Medieval Ethical Theory (Twelfth to Fourteenth Century)
MST3326H Individuation and Individuality in Medieval and Early Modern Philosophy
MST 3345H Prophets and Philosophers: Theories of Prophecy in the Medieval Islamic, Jewish and Christian Traditions
MST 3346H Medieval Islamic Philosophy
MST 3401H Introduction to Medieval Christianity
MST 3405H Early Christian Monasticism
MST 3501H Introduction to the Medieval Christian Liturgy
MST 9310Y,H Directed Reading
MST 9315Y,H Directed Reading

Music
MUS 1040H Topics in Medieval Music
MUS 1063H Musical Notation of the Middle Ages

Near and Middle Eastern Civilizations

NMC 1311Y Post-Biblical Hebrew: Mishnah and Midrashim
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 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 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 3232H Sacred Space in the Christian Tradition
RLG 3653Y Jewish Exegetical Traditions in Antiquity

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 *(Associate Director)*
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, *(Coordinator of Graduate Studies)*

Cochelin, Isabelle - DipdESup, BA, MA, PhD
Cohen, Adam - PhD
Dewar, Michael - BA, MA, DPhil
Dimnik, Martin - BA, MA, MDiv, DPhil
Dooley, Ann - BA, MA, PhD
Dresher, B Elan - BA, MA, 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
Healey, Antonette - BA, MA, PhD
Herren, Michael - PhD
Hoffmann, Richard - BA, PhD
Hutchison, Ann - BA, MA, PhD
Inwood, Brad - BA, MA, PhD, Fell Royal Society Canada
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
Pickavé, Martin - BA, MA, PhD
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
Terpstra, Nicholas - BA, MA, PhD
Townsend, David Robert - BA, MA, PhD
Wollesen, Jens - PhD

Members Emeriti

Burke, James - BA, MA, PhD
Davis, Natalie - BA, MA, PhD
Dutka, JoAnna - BA, MA, PhD, Assoc Royal Conserv Tor
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

McConica, James - STB, BA, MA, DPhil, Fell Ryl
    Historical Societ
McDonough, Christopher - BA, MA, PhD
Merrilees, Brian - PhD, Fell Royal Society Canada
Munro, John - BA, MA, PhD
Reynolds, Roger - AB, JD, PhD
Rigg, Arthur George - BA, MA, DPhil
Stock, Brian - AB, PhD
Taylor, Robert - PhD

Associate Members
Andrée, U.O. Alexander - BA, PhD
Boyle, Marjorie - AM, PhD
Currie, Gabriela Ilnitchi - MA, PhD
Denoyelle, Corinne - BLitt, DLitt
Evans, Claude - BA, MA, PhD
Holland, Joan - BA, PhD
MacLean, Sarah - BA, MA, PhD
McDougall, David - BA, MA, PhD
McDougall, Ian - BA, MA, PhD
Pierno, Franco - BA, MA, PhD
Stock, Markus - MA, PhD
Thompson, Pauline - BA, MA, PhD

Molecular Genetics

Faculty Affiliation
Medicine

Degree Programs Offered
Genetic Counselling - MSc
Molecular Genetics – MSc, PhD

Collaborative Programs
Degree programs that participate in:
1. **Biomolecular Structure**
   - Molecular Genetics - PhD
2. **Developmental Biology**
   - Molecular Genetics - MSc, PhD
3. **Genome Biology and Bioinformatics**
   - Molecular Genetics - PhD
4. **Neuroscience**
   - 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.

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 (totalling 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 a minimum of 21 months over a two-year period in full-time attendance.
- Students are required to organize an intervening summer rotation in a geographic location of their choice.

Normal Program Length – 6 sessions (full-time)

Required Courses
MSC 2010Y   Advanced Concepts in Human Genetic Disease
MMG 1120Y   Clinical RotationsI
MMG 1122Y   Issues in Genetic CounsellingI

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
MMG1230H 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 equivalent) and MMG 1015Y° (seminar course).
- A thesis on a research project.
- Defence of the thesis at an oral examination.
- Students are required to spend 12 months in full-time attendance.

Normal Program Length – 6 sessions (full-time)

Doctor of Philosophy

Minimum Admission Requirements
- Admission via one of three routes:
  - o Admission into the PhD program with a completed 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.

*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.

Program Requirements
- Successful completion of MMG 1012H° (or equivalent) 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 master'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 attendance.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD or transfer from master's)

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

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
Bognar, 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
Culotti, Joseph - PhD
Davidson, Alan Richard - BSc, PhD
Dennis, James - PhD
Derry, W. Brent - BSc, MSc, PhD
Dick, John - PhD
Durocher, Daniel - PhD

Edwards, Aled - BSc, PhD
Egan, Sean - PhD
Ellis, James - PhD
Emili, Andrew - DPM
Frappier, Lori - PhD
Fraser, Andrew - BSc
Funnell, Barbara - PhD
Gallie, Brenda - MD
Giaever, Guri - BS, PhD, Canada Research Chair
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, Andras - 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, (*Graduate Coordinator*)
Scherer, Stephen - PhD
Scott, Ian - BSc, PhD
Segall, Jacqueline - BSc, PhD
Sicheri, Frank - BSc, PhD
Sidhu, Sachdev - BSc, DPhil
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, Chetankumar - PhD
Tyers, Michael - PhD
Van Der Kooy, Derek - BSc, MA, PhD
Wilde, Andrew Rhys - BSc, PhD

Wodak, Shoshana - 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
Murialdo, 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
Ryu, William - AB, PhD
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
Composition
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 (MUS 1000H) in year 1.
• Introduction to Music Research II (MUS 1001H), offered in alternate years.
• Either the Associate Dean, Graduate Education, or the History and Culture Coordinator will advise students on course selection with a view to establishing a balance between their interests and any perceived weaknesses in their background preparation.
• 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.
- 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 will ordinarily be German except by petition to the department. We encourage the completion of the language requirement at the earliest possible opportunity.

Normal Program Length – 6 sessions (full-time); 8 sessions (part-time)

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 (MUS 1000H) in year 1.
- Fieldwork Methods and Practicum (MUS 1002H), offered in alternate years.
- Either the Associate Dean, Graduate Education, or the Ethnomusicology Coordinator will advise students on course selection with a view to establishing a balance between their interests and any perceived weaknesses in their background preparation.
- 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.

Normal Program Length – 6 sessions (full-time); 8 sessions (part-time)

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.
- Applicants will normally have two years of teaching experience, although this requirement may be waived at the discretion of the department.
- An interview with the music education faculty must be scheduled whenever possible. With faculty approval, an assigned essay may be substituted for the interview.
- Appropriate letters of reference commenting on professional performance and promise are also required.

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).

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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 fulfil the following requirements:
  o A minimum of 3.0 full-course equivalents (FCE)
  o The PhD Seminar (MUS 1250H) is taken in the first session.
  o 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.
  o 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.
  o 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

The PhD program in Music Education may be completed as a full-time program or a flexible-time program.

Full Time PhD Option

• 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.

Flexible-Time PhD Option

• The admission, course, and degree requirements for the flexible-time option are identical to those listed for the full-time PhD program.

• The flexible-time option is offered to practising professionals whose employment or other professional work is related to their research or study interests.

• Applicants to the flexible-time PhD program option must apply specifically to this program to be considered. 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.

• Students who are considering the flexible-time PhD should ensure that they have adequate time on campus to attend classes and to fulfil the academic requirements of a PhD program.

• As governed by the University regulations, flexible-time students must be registered full time and pay full time fees for four years, and may apply to be registered part time thereafter. The number of courses, major field examination, and thesis requirements will be the same as those required for the full-time PhD. The difference is that students enrolled in the flexible-time PhD will have the flexibility of a part-time course load and will have an overall time limit to completion of eight years.

Normal Program Length – 4 years (full-time PhD); 6 years flexible-time

Course List

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

ºCourse which may continue over a program. The course is graded when completed.

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 2998H   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:
    o MUS 4444Y and MUS 4445Y (applied lessons)
    o 1.0 FCE in music literature (MUS 4200Y) normally taken in the first year of the program
    o 1.0 FCE selected from MUS 4600H or MUS 4606H; MUS 4610H; MUS 4615H
    o Students in brass, percussion, strings, and woodwinds will complete 1.0 FCE as two years of ensemble performance. Placement to be determined by audition.
    o 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:
    o MUS 4444Y and MUS 4445Y (applied lessons)
    o 1.0 FCE in music literature (MUS 4200Y) normally taken in program year 1
    o 1.0 FCE selected from MUS 4600H or MUS 4606H; MUS 4610H; MUS 4615H
    o 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:
    o MUS 4444Y and MUS 4445Y (applied lessons)
    o 1.0 FCE in music literature (MUS 4200Y, taken in year 1)
    o Operatic Repertory (MUS 4513Y) taken in year 2
    o 1.0 FCE chosen from a specified list approved by the department

o 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:
  o 1.0 FCE in music literature (MUS 4200Y, normally taken in year 1)
  o 1.0 FCE selected from: MUS 4600H or MUS 4606H; MUS 4610H; MUS 4615H
  o Orchestral conducting majors must also complete MUS 4220H, MUS 4221H, MUS 4222Y, MUS 4223H, and MUS 4700H (choral)
  o Wind ensemble conducting majors must also complete MUS 4226H, MUS 4227H, and MUS 4228Y
  o 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:
  o MUS 4444Y; MUS 4445Y; MUS 4300Y, normally taken in year 1
  o MUS 4606H; MUS 4615H
  o Either MUS 4310Y, MUS 4311Y, or 1.0 FCE chosen from a specified list approved by the department
  o Students must also include in their programs 1.0 FCE selected from one or more of the following areas:
    o Small Group Jazz Ensemble Performance (MUS 4740H, MUS 4741H, MUS 4742H, MUS 4743H)
    o Jazz Orchestra (MUS 4750H, MUS 4751H, MUS 4752H, MUS 4753H) or
    o 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:
  o MUS 4444Y and MUS 4445Y (applied lessons)
  o 1.0 FCE in music literature (MUS 4200Y), normally taken in year 1
  o 1.0 FCE selected from MUS 4600H; MUS 4610H; MUS 4615H
  o MUS 4504H *Advanced Song Studies for Pianists*
  o MUS 4506H *Sonata Coaching I*
  o MUS 4214H *Advanced Repertoire for Singers and Pianists II*
  o MUS 4730H *Performance Studies I: Piano-Instrumental Master Class*
  o MUS 4502H *Collaborative Piano Studio Class*
  o 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:
  o MUS 4444Y and MUS 4445Y (applied lessons)
  o 1.0 FCE in music literature (MUS 4200Y), normally taken during year 1
  o 1.0 FCE selected from MUS 4600H, MUS 4610H and MUS 4615H; or MUS 4620Y
  o MUS 2122H, MUS 4240H, MUS 4241H, MUS 4248H
  o 0.5 FCE selected from MUS 4231H, MUS 4213H, and MUS 4730H
  o 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:
  o MUS 4444Y and MUS 4445Y (applied lessons)
  o 1.0 FCE in music literature (MUS 4200Y), normally taken in year 1
  o 1.0 FCE selected from MUS 4600H; MUS 4610H; MUS 4615H
  o MUS 4770H; MUS 4771H; MUS 4772H; and MUS 4773H
  o 1.0 FCE chosen from MUS 2122H; MUS 4730H-4733H; MUS 4620Y; or from a list of courses approved by the department
- Two recitals.

Normal Program Length – 6 sessions (full-time)

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:
  o MUS 4800H *DMA Seminar* is taken in the first session
  o MUS 4899H *Work on Research in Performance* is begun in the second session
  o Advanced Applied Music I and II (MUS 4844Y and MUS 4845Y)
  o 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.

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

- 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.

Normal Program Length – 4 years (full-time DMA)

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 3309H   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 Vocology
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
MUS 4713H Chamber Music IV
MUS 4714H Chamber Choir I
MUS 4715H Chamber Choir II
MUS 4716H Chamber Choir III
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 Orchestral Studies I
MUS 4786H Orchestral Studies II
MUS 4787H Orchestral Studies III
MUS 4788H Orchestral Studies IV
MUS 4790H Instrumental Performance Class I
MUS 4791H Instrumental Performance Class II
MUS 4792H Instrumental Performance Class III
MUS 4793H Instrumental Performance Class IV
MUS 4795H Piano/Instrumental I
MUS 4796H Piano/Instrumental II
MUS 4797H Piano/Instrumental III
MUS 4798H 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

° Courses which may continue over a program. The course is graded when completed.

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, Assoc Royal Conserv Tor
Kulesha, Gary - AA, Assoc Royal Conserv Tor, Assoc Royal Conserv Tor
Lee, Sherry - BMus, MMus, PhD
Loewen, Che Anne - TD, BMus, BA, MMus
Macdonald, Lorna - BME, MMus
MacKay, Gillian
McClelland, Ryan - BMus, MM, PhD
McLeod, Kenneth - AM, PhD
Palej, Norbert - BM, MM, DMA
Parker, James - BMus, MM, DMA, Assoc Royal Conserv Tor
Parker, Mary Ann - BA, MM, PhD, Assoc Royal Conserv Tor
Patrick, Dennis - MusBac, MMus
Pilzer, Joshua David - BA, MA, PhD
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, Assoc Royal Conserv Tor
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

Besnard, Christine - BA, MA, PhD
Hennigar, Harcus - BMus, BA
Melville, Alison - BMus, MMus

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. **Diaspora and Transnational Studies**
   - Near and Middle Eastern Civilizations, MA, PhD
2. **Jewish Studies**
   - Near and Middle Eastern Civilizations, MA, PhD
3. **Sexual Diversity Studies**
   - Near and Middle Eastern Civilizations, MA, PhD
4. **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 and Ottoman 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.
- 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 meet the School of Graduate Studies English language facility requirements.

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.

Normal Program Length – 3 sessions (full-time for 1-year MA); 6 sessions (full-time for 2-year MA)

Doctor of Philosophy

Minimum Admission Requirements
- Admission via one of two routes:
  - MA degree in a relevant program from a recognized university with at least an A- average or equivalent in courses taken for the MA program.
  - Direct entry from a bachelor's degree for exceptionally qualified applicants, at the discretion of the Department.
- Ability to conduct independent research.
- Competence in primary source language(s) relevant to the applicant's research.
- Two letters of reference.
- Statement of academic intent.
- 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 successfully complete one of the English tests listed on the department Web site.

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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 1209H Old Egyptian Texts
NMC 1210H Ancient Egyptian Historical Texts
NMC 1213H Ancient 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 Medieval Arabic Chronicles
NMC 2118H Readings in Medieval Arabic Biographical Literature
NMC 2119H Readings in Medieval Arabic Legal Documents
NMC 2130Y Topics in 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 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 1423H The Archaeology of Mesopotamia I (8,000 – 2,000 BC)
NMC 1424H The Archaeology Mesopotamia II (2,000 – 330 BC)
NMC 1425H Mesopotamian Material Culture I: Art and Artifacts
NMC 1426H Mesopotamian Material Culture II: Architecture
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
NMC 1317H Modern Hebrew Prose
NMC 1318H Midreshei Halakha: Purity and Cultic Texts
NMC 1319H Midreshei Halakha: Legal Texts and Narrative
NMC 1326Y Topics in Midrashic Literature
NMC 1327H Themes in Midrashic Literature
NMC 1328H Intertextuality: Tannaitic and Amoraic Literature

History

NMC 1020H Ancient Mesopotamia I: Sumerians and Akkadians
NMC 1021H Ancient Mesopotamia II: Assyrians and Babylonians
NMC 1401H Ancient Egyptian Cultural History I
NMC 1402H Ancient Egyptian Cultural History II
NMC 2080H Theory and Method in Middle Eastern Studies
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 2310Y Ottoman History to 1800
NMC 2315Y Topics in Ottoman History
NMC 2345Y The Steppe Frontier in Eurasian and 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
NMC 2525H Painting in Late Medieval and Early Modern Iran and Beyond
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 2200Y Introductory Persian
NMC 2201Y Intermediate Persian
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 Modern Iran

Religion and Philosophy

NMC 1613Y Ancient Western Asiatic Religions (PhD students in Near and Middle Eastern Civilizations excluded)
NMC 1614Y Ancient Egyptian Religion (PhD students in Near and Middle Eastern Civilizations excluded)
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

Turkish and Ottoman Studies

NMC 2300Y Introductory Turkish
NMC 2301Y Intermediate Turkish
NMC 2330Y Readings in Ottoman Historical Texts
NMC 2331Y Ottoman Palaeography and Diplomatics
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)*
Daviau, Michele - MTH, PhD
Fox, Harry - BSc, BA, MS, MA, PhD
Grzymski, Krzysztof - 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
Keall, Edward - BA, PhD
Lutz, R.Theodore - MA
Pietersma, Albert - BA, BD, PhD
Sandler, Rivanne - BA, MA, PhD

Associate Members

Ali, Abdel-Khalig - BA, MA
Emon, Anver - LLB, BA, LLM, MA, PhD, SJD
Fadel, Mohammad - BA, JD, PhD
Goebs, Katja - MA, DPhil
Guenther, Sebastian - MA, PhD
Hassanpour, Amir - BA, MA, PhD
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 -
- **Master of Nursing (Nurse Practitioner Field) Concurrent Diploma in Anesthesia Care**
- **Post Master of Nursing (Nurse Practitioner Field) Diploma in Anesthesia Care**
- **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 **Master of Nursing (Nurse Practitioner Field) Concurrent Diploma in Anesthesia Care** provides advanced education for Nurse Practitioner Field students interested in developing their knowledge and skill related to the continuum of anesthesia care including peri-operative, post-operative, and ambulatory care. The Diploma, completed in conjunction with the MN NP program, requires two years of full-time study to meet the MN requirements and three sessions of full-time study for the Diploma, with two sessions embedded within the MN NP Field and one additional session.

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. Effective Care and Health Outcomes
2. Critical Approaches to Health and Health Care
3. Nursing Health Systems

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 a B standing in the next-to-final year.
- Applicants seeking admission to the 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. A part-time option is available only in exceptional cases. Part-time students must be enrolled at minimum in two out of three sessions in each academic year.
- 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.

Normal Program Length – 6 sessions (full-time)

Master of Nursing (Nurse Practitioner Field) Concurrent Diploma in Anesthesia Care

Minimum Admission Requirements
- To qualify, applicants must be first admitted to the master's program in the Nurse Practitioner Field.
- Applicants must have successfully completed a minimum of two sessions in the MN NP Field program.
- Applicants must apply directly to the Faculty of Nursing by June 1 in year one of the MN NP Field program and are selected by an internal process involving the Faculty Admissions Committee.
- Applicants must have the two years of experience required for the MN NP Field, normally in critical care or equivalent, and submit a written statement to support their interest and future application to this program.
- The Diploma must be completed in conjunction with the MN curriculum that includes all NP courses required in the NP Field of the MN Program. Students must meet all School of Graduate Studies requirements for admission to and completion of the MN program, whether or not they complete the Diploma program.
- Prerequisite is Anesthesia Graduate Certificate (basic) (Pass Grade) from the Michener Institute or equivalent (1.0 FCE).

Program Requirements
- The Diploma, completed in conjunction with the MN NP program, requires two years of full-time study to meet the MN requirements and three sessions of full-time study for the Diploma, with two sessions embedded within the MN NP Field and one additional session.

- Students complete a total of 3.0 FCEs (includes two clinical courses) in a program of study outlined by the Graduate Department of Nursing Science. Students are required to complete the following:
  - o NUR 1201H *Principles of Anesthesia Care*
  - o NUR 1202H *Advanced Pain Management Across Clinical Settings*
  - o NUR 1209Y *Advanced Nursing Practice in Caring for Clients and Families Requiring Anesthesia I* (300 clinical hours)
  - o NUR 1210Y *Advanced Nursing Practice in Caring for Clients and Families Requiring Anesthesia II* (300 clinical hours)

Normal Program Length – 7 sessions (full-time)

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:
  - o be accepted under the general regulations of the School of Graduate Studies. Meeting the minimum requirements does not guarantee admission.
  - o 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.
  - o have successfully completed an introductory course in statistics prior to admission.
  - o 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.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

Nurse Practitioner

Post Master of Nursing (Nurse Practitioner Field) Diploma in Anesthesia Care

Minimum Admission Requirements
- Applicants must have completed a University of Toronto Master of Nursing (NP Field) degree or equivalent.
- Applicants must be currently registered or are eligible for registration with the College of Nurses of Ontario as a Nurse-Practitioner Adult or Nurse Practitioner Paediatrics.
- Applicants must normally have two years of experience in critical care or equivalent.
- Applicants must provide three letters of reference (academic, professional, and clinical (NP or MD)), and submit a written statement to support their application to this program.
- Applicants must apply by June 1 to the Faculty of Nursing.
- Prerequisite is successful completion (Pass Grade) of the Anesthesia Graduate Certificate (basic) from the Michener Institute or equivalent (1.0 FCE).

Program Requirements
- Students complete a total of 3.0 FCEs (includes two clinical courses) in a program of study outlined by the Graduate Department of Nursing Science. Students are required to complete the following:
  o NUR 1201H *Principles of Anesthesia Care*
  o NUR 1202H *Advanced Pain Management Across Clinical Settings*
  o NUR 1209Y *Advanced Nursing Practice in Caring for Clients and Families Requiring Anesthesia I* (300 clinical hours)
  o NUR 1210Y *Advanced Nursing Practice in Caring for Clients and Families Requiring Anesthesia II* (300 clinical hours)

Normal Program Length – 3 sessions (full-time)

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 PhD 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)
NUR 1100Y   Pathophysiologic Concepts and Therapeutics
NUR 1101H   Advanced Health Assessment and Clinical Reasoning (Adult) (Pre- or corequisite: NUR 1022H)

NUR 1102H Advanced Health Assessment and Clinical Reasoning (Child) (Pre- or corequisite: NUR 1022H)
NUR 1109Y Advanced Nursing Practice in Caring for Clients and Families I (Prerequisites: Successful completion of NUR 1017H, NUR 1022H, NUR 1101H or 1102H.
NUR 1110Y Advanced Nursing Practice in Caring for Clients and Families II (Credit/No Credit) (Prerequisite: NUR 1109Y. Pre- or corequisite: NUR 1034H)
NUR 1201H Principles of Anaesthesia Care
NUR 1202H Pain Management Across Clinical Settings: Theory, Research And Practice
NUR 1209H Advanced Nursing Practice For Caring For Families Requiring Anaesthesia I
NUR 1210H Advanced Nursing Practice For Caring For Families Requiring Anaesthesia II

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
Bierman, Arlene - MS, MD
Clarke, Sean - MSN, PhD
Dennis, Cindy-Lee - PhD
Doran, Diane - BA, PhD
Dubrowski, Adam - BSc, MSc, PhD
Esplen, Mary Jane - BScN, MSN, PhD, RN
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
McDonald, Lynn - PhD
McGillis, Linda - BHA, MS, PhD
McGilton, Kathy - BScN, MN, PhD
McKeever, Patricia - BN, MSA, DPhil, RN
Metcalfe, Kelly - BNSc, PhD
Muntaner, Carles - MHSc, MD, PhD
Nelson, Sioban - PhD, *(Chair)*
O'Brien-Pallas, Linda-Lee - BSN, MSN, DPhil
Peter, Elizabeth - BA, BSN, MSN, PhD *(Associate Dean, Academic and Chair Graduate Programs)*
Stevens, Bonnie - BSc, MSN, DPhil
Tourangeau, Ann - PhD

Members Emeriti

Donner, Gail - PhD
Gallop, Ruth - BSN, MSN, PhD
Pringle, Dorothy - BScN, MS, PhD
Watt-Watson, Judith - BSN, MSN, DPhil

Associate Members
Andrews, Gavin John - BA, PhD
Armson, Anthony - BSc, MSc, MD
Bender, Amy - BNSc, MN
Berta, Whitney - BS, MBA, PhD
Birn, Anne-Emanuelle - BA, MA, DSc
Boutis, Kathy - MD
Brewster, Joan - BA, MA, PhD
Chambon, Adrienne - BA, PhD
Chau, Tom - PhD
Chavez, Wilfrida - MHSc
Cummings, Greta - BNSc, MEd, PhD
Davies, Barbara - BScN, MSN, PhD
Deber, Raisa - BS, MS, PhD
Diamond, Timothy - BPhil, MA, PhD
Drake, James - BSE, MSc, MBChB
Edwards, Geoffrey - PhD
Friedrich, Jan - BSc, MD, PhD
Fung, Kenneth - MD
Greenberg, Mark - LMCC, MD, MBChB
Hardie, Catherine - BSN, MSN, EdD
Hsiung, Ping-Chun - PhD
Hutchison, Jamie - MD
Laschinger, Heather - PhD
Macdonald, Geraldine - BSN, MEd, EdD
Mccay, Elizabeth - MSN, PhD
McGillion, Michael - PhD
McPherson, Kathryn - PHM
Menzies, Peter - MSW
Messner, Hans - MD, PhD
Miller, Fiona - MA, DPhil
Murphy, Joan - MD
Musclow, Shirley - BScN, MN
Mykhalovskiy, Eric - BA, MA, PhD
Noh, Samuel - BA, MA, PhD
O'Leary, Gerald - BA, BCH, LMCC, BM, BAO
Parry, Monica - BScN, MSc, MEd, PhD
Peterson, Jessica - BSc, PhD
Puts, Martine - PhD
Ross, Lori - PhD
Rourke, Sean - BSc, BA, PhD
Ruddick, Susan - PhD
Rudge, Trudy - PhD
Sahlas, Demetrios James - MSc, MD
Sampaio, Luis - MD
Smadu, Marlene - BScN, MEd, EdD
Srivastava, Rani - BN, MSN
Stinson, Jennifer - BScN, MSc
Stremler, Robyn - PhD, RN
Tang, Sannie - PhD
Williams, Charmaine - BA, BSc, MSW, PhD
Wynn, Francine - BA, MA, PhD *(Coordinator of Graduate Studies)*

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 Public Health degree in Community 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
- 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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

Doctor of Philosophy

Minimum Admission Requirements
- Applicants may enter the PhD program in one of two ways:
  - 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.
  - 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.

Normal Program Length – 4 years (full-time); 5 years (direct-entry)

Course List

Not all courses are offered every year. Please consult the Department regarding course offerings.

NFS 1201H Public Health Nutrition
NFS 1204Yᵒ 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

ᵒ Courses which may continue over a program. The course is graded when completed.

NFS 1304Yᵒ Doctoral Seminars in Nutritional Sciences (Credit/No Credit)
NFS 1484H Advanced Nutrition

Graduate Faculty

Full Members
Allard, Johane - MD
Anderson, Gerald - BSc, MSc, PhD
Archer, Michael - MA, MSc, PhD, DSc, Earle W McHenry Chair in Nutritional Sciences
Bazinet, Richard - BSc, PhD
Boyd, Norman - MD
El-Sohemy, Ahmed - BSc, MSc, PhD, Canada Research Chair
Eyssen, Gail - BSc, MSc, MSc, PhD
Greenwood, Carol - BSc, MSc, PhD
Hanley, Anthony - BSc, MSc, PhD, Canada Research Chair *(Graduate Coordinator, Admissions & Awards)*
Jenkins, David Ja - BA, MA, MD, MB, BS, PhD, Canada Research Chair
Kim, Young-In - MD
Kreiger, Nancy - BA, MPH, PhD
L'Abbe, Mary - BSc, MSc, PhD *(Chair & Graduate Chair)*
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 - BSc, 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
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
Ma, David - BSc, PhD
Yeung, David - BA, MA, PhD

Occupational Science and Occupational Therapy

Faculty Affiliation
Medicine

Degree Programs Offered
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 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:
  - 600 on the paper-based test, accompanied by a minimum score of 5 on the Test of Written English
  - 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.

Normal Program Length – 6 sessions (full-time)

Course List

OCT 1100H°	Applied Skills and Technology: Human Factors and Design in Occupational Therapy
OCT 1111Y	Occupational Science: Foundations for Occupational Therapy
OCT 1121H	Research Issues and Approaches in Occupational Therapy
OCT 1122H	Methods in Practice-Based Research
OCT 1123H	Framing Practice-Based Research
OCT 1131H	Occupational Therapy Practice I
OCT 1132H	Occupational Therapy Practice II
OCT 1133H	Occupational Therapy Practice III
OCT 1141H	Assessment in Occupational Therapy
OCT 1152Y	Musculoskeletal Structure and Function
OCT 1162Y	Psychosocial Perspectives in Occupational Therapy
OCT 1172Y+	Neuro-motor/Neuro-cognitive Perspectives in Occupational Therapy
OCT 1183Y	Occupational Therapy Fieldwork I
OCT 1190Y°	Building Practice Through Mentorship
OCT 1220Y°	Graduate Research Project (1.5 FCE)
OCT 1251H	Enabling Occupation with Children: Part I
OCT 1252H	Enabling Occupation with Children: Part II
OCT 1261H	Enabling Occupation with Adults: Part I
OCT 1262Y	Enabling Occupation with Adults: Part II
OCT 1271H	Enabling Occupation with Older Adults: Part I
OCT 1272H	Enabling Occupation with Older Adults: Part II
OCT 1281Y	Occupational Therapy Fieldwork II
OCT 1282Y	Occupational Therapy Fieldwork III
OCT 1283Y	Occupational Therapy Fieldwork IV

Graduate Faculty

Full Members
Agur, Anne - BSc, MSc, PhD
Carnahan, Heather - BPHE, MSc, PhD
Carswell, Anne - DIPOT, BSc(OT), MSc, PhD
Colantonio, Angela - BA, BSc(OT), MHSc, PhD
Dawson, Deirdre - BSc, MSc, PhD
Friefeld, 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 - DIPOT, 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
Keightley, Michelle - BSc, MA, PhD
Langlois, Sylvia - BSc, MSc
Mckee, Patricia - DIPOT, BSc(OT), MSc
Rigby, Patty - DIPOT, 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

Graduate Department of Pharmaceutical Sciences
Leslie Dan Faculty of Pharmacy
University of Toronto
144 College Street
Toronto, Ontario M5S 3M2
Canada

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 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.

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.
- Regular attendance at Pharmaceutical Sciences departmental seminars.
- An oral presentation of own research work is given after the first 12 months of registration in the program.
- 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.

Normal Program Length – 6 sessions (full-time); 14 sessions (part-time)

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
  - 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.

Transfer from MSc to PhD
- **Students who have a high a**cademic standing and a clearly demonstrated ability to do research at the doctoral level may be eligible to transfer to the PhD program after one year in the MSc program. The student must have completed at least one FCE with an average grade of A minus and have financial support.
- 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 off**ers 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.
- Research presentation(s) to all faculty and graduate students at Graduate Research in Progress (GRIP). Students entering the program with a MSc degree must complete one oral presentation. Direct-entry PhD students must complete one oral and one poster presentation.
- Annual attendance at GRIP, and an exit full-length research seminar to be given before the thesis defence.
- Regular attendance at a minimum of eight Pharmaceutical Sciences departmental seminars in each academic year.
- 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, unless the student presents at GRIP.

- 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 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 are required to complete a minimum of at least four seminars in each academic year.
- Students must ensure that they have adequate time on campus to attend classes and to fulfil the academic requirements.
- Full-time registration is required for the first four years 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.

Normal Program Length – 4 years (full-time PhD); 7 years (flexible-time PhD); 5 years (transfer from master's or direct-entry)

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)
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

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

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
PHM 1128H	Introduction to Models and Methods of Research in Clinical, Social, and Administrative Pharmacy
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, Canada Research Chair
Austin, Zubin - BA, BScPhm, MBA, MISt, MEd, PhD
Ballantyne, Peri - BA, MA, 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, Canada Research Chair
Grant, Denis - BSc, PhD
Grootendorst, Paul - BA, MEC, PhD
Hampson, David - PhD
Heerklotz, Heiko - PhD, Canada Research Chair
Henderson, Jeffrey - PhD
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, GlaxoSmithKline Chair in
 Pharmaceutics and Drug Delivery *(Coordinator of*
 Graduate Studies)
Macgregor, Robert - BS, PhD
MacKeigan, Linda - BScPhm, PhD
Mann, Henry - BScPhm, DP (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, Canada Research
 Chair
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
Scott, Fran - BSc, MSc, MD, MD
Seguin, Beatrice - PhD, PhD
Thompson, Alison - BA, MA, PhD

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

Department of Pharmacology and Toxicology
University of Toronto
Room 4207, Medical Sciences Building
Toronto, Ontario M5S 1A8
Canada

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.

Normal Program Length – 6 sessions (full-time); 9 sessions (part-time)

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.

Normal Program Length – 4 years

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 .

PCL 1001Y	Systems Pharmacology
PCL 1002Y	Graduate Pharmacology
PCL 1003Y°	Seminars in Pharmacology (Credit/No Credit)
PCL 1004Y	Clinical Pharmacology
PCL 1012H	Cognitive Neuropharmacology
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+	Molecular and Biochemical Basis of Toxicology
JNP 1018H+	Current Topics in Molecular and Biochemical Toxicology
JNR 1444Y	Fundamentals of Neuroscience: Cellular and Molecular
JPM 1005Y	Behavioural Pharmacology
JPY 1007Y	Neuropharmacology of Neurotransmitter Receptors
JYG 1555H	Topics in Cellular and Molecular Neurobiology

°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

Busto, Usanda - BSc, DP
Dorian, Paul - MSc, MDCH
George, Susan - MD
Grant, Denis - BSc, PhD *(Chair)*
Grupp, Larry - DSc
Hampson, David - PhD
Harper, Patricia - PhD
Ito, Shinya - MD, BM
Kish, Stephen John - BSc, MSc, PhD
Koren, Gideon - MD
Lanctot, Krista - MSc, PhD
Le, Dzung - PhD
Li, Peter Pun - BSc, MSc, PhD
MacDonald, John - BSc, PhD
McPherson, J. Peter - MSc, PhD *(Coordinator of Graduate Studies)*
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
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, Canada Research Chair
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

Brands, Bruna - PhD
Laposa, Rebecca - PhD
Le Foll, Bernard - DrMed
Matthews, Jason - PhD
Meyer, Jeffrey - MD
Park, Hee-Won - DVSM, MSc, DChem
Ramsey, Amy - PhD
Salahpour, Ali - PhD
Woodland, Cindy - PhD
Zack, Martin - PhD

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

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 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 complete applications and supporting documents, including letters of reference, 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.

Normal Program Length – 3 sessions (full-time); 5 years (part-time)

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), 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.
- Applicants must submit the following supporting documents with their applications:
  - One official transcript of the applicant's academic record from each university attended, complete to the time of application.
  - A statement of about 300 words, indicating the applicant's areas of interest in philosophy at the graduate level.
  - Two letters of reference from philosophy instructors, written on the appropriate forms.

- 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 the student's capability to study philosophy at an advanced level.
- The results of the Graduate Record Exam (GRE) taken within the preceding 18 months. If this requirement imposes an undue burden on an overseas applicant, it can be waived at the discretion of the Graduate Coordinator
- Applicants whose primary language is not English and who are not graduates of a university whose language of instruction is English must complete the Test of English as a Foreign Language (TOEFL) with the following minimum scores:
  - Paper-based TOEFL exam: 600 and 5 on the TWE
  - Internet-based TOEFL exam: 100/120 and 22/30 on the writing and speaking sections.

  Equivalent results in some other recognized test of English-language facility are acceptable.
- 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 complete applications and supporting documents, including letters of reference, is January 7.

Program Requirements

PhD students pursue a program of study and research approved by the department. The PhD program has two options: a five-year option and a four-year option. The five-year option is the most common and is the only direct-entry option for students with a bachelor's degree (or equivalent). There are two main differences between these PhD options. The five-year option provides five years of funding rather than four, and has an extra year of courses. The program requirements are summarized below. Please see the departmental Web site for full details.

- **Course Requirements.**
  - Students with a four-year **bachelor's degree** who are taking the five-year option 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. To remain in good standing, students must complete 3.0 with an A- average by the end of their first academic year, and 6.0 FCE with an A- average by the end of their second academic year.
  - Students with a **master's degree** who are taking the four-year option must complete a

minimum of 3.0 FCE in philosophy, with a minimum A- average by the end of their first academic year. At least 1.0 FCE must comprise History of Philosophy courses and at least 1.0 must comprise Problems of Philosophy 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 required courses.

- With the department's permission, a student may replace up to 1.0 FCE in philosophy with graduate courses offered by another department, provided that the courses are required for the student's planned research.

- **Breadth Requirement**. A student must demonstrate competence in at least six areas of philosophy, including the following:
  o Each of the following 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
  o The remaining three required areas must be chosen from the periods in the history of philosophy specified below:
    Ancient
    Medieval
    17th-18th century
    19th century
    20th century
  o Competence in any area is normally established by successful completion of a graduate 0.5 FCE in that area.
  o A student must also demonstrate competence in logic (defined as proficiency in first-order symbolic logic with identity). This competence is expected of all students prior to beginning doctoral studies. Where this is not the case, competence must be acquired as a supplement to the required number of courses and be demonstrated to the satisfaction of the department by the time the 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 fulfil 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, students in the four-year option should have completed all the course requirements for the degree. Students in the five-year option should have completed all course requirements by the second year of registration. By the end of the following year of registration, students 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 he or she is expected to finish within two years.

Normal Program Length – 4 years (full-time); 5 years (direct-entry)

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 PhD 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

PHL 2133H Topics in Ethics
PHL 2135H Metaethics
PHL 2141H Political Philosophy
PHL 2142H Seminar in Political Philosophy
PHL 2143H Social Philosophy
PHL 2144H Seminar in Social Philosophy
PHL 2145H Bioethics
PHL 2146Y Topics in Bioethics
JVP 2147H Environmental Philosophy
PHL 2148H Philosophy of Law
JPL 2149H Legal Theory
PHL 2151H Aesthetics
PHL 2152H Philosophy and Teaching

Feminist Philosophy
JPW 2118H Philosophical Foundations of Women's
           Studies
PHL 2140H Feminist Philosophy

Philosophy of Science
JPH 2192H Philosophy of Science
JPH 2194H Topics in the History of the Philosophy of
           Science
PHL 2195H Philosophy of Biology
PHL 2196H Topics in the Philosophy of Science
PHL 2199H Seminar in the Philosophy of Science

Miscellaneous
PHL 3000H Professional Workshop
PHL 3101H Intensive Special Course
PHL 4900H Research Seminar

Graduate Faculty

Full Members
Ainslie, Donald - BSc, MA, PhD *(Chair & Graduate Chair)*
Allen, Derek - PhD
Barney, Rachel - BA, PhD
Berkovitz, Joseph - BSc, MA, PhD
Black, Deborah - BA, MA, PhD
Boyle, Joseph - BA, PhD
Brown, James - BA, MA, PhD
Chakravartty, Anjan - BSc, MPH, MA, PhD
Clark, Philip - DPhil
Comay, Rebecca - BA, MA, PhD
Cunningham, Frank - BA, MA, PhD
Dickie, Imogen - BPhil, BA, DPhil
Dyzenhaus, David - BA, LLB, PhD
Franks, Paul - AB, MA, PhD
Gerson, Lloyd - BA, MA, PhD
Gibbs, Robert - BA, MA, PhD
Gooch, Paul William - BA, MA, PhD
Heath, Joseph - BA, MA, PhD
Hellie, Benjamin - BA, PhD
Howson, Colin - BSc, PhD
Hurka, Thomas - BPhil, BA, DPhil
Hutchinson, Douglas - BA, BPhil, DPhil
Inwood, Brad - BA, MA, PhD, Fell Royal Society Canada

Katz, Bernard - BA, MA, PhD
King, Peter - AB, PhD
Kingwell, Mark - AB, BA, AM, MPH, PhD
Kremer, Philip - BS, PhD
Lange, Lynda - AB, MA, PhD
Matthen, Mohan - PhD
Misak, Cheryl - BA, PhD
Morgan, Kathryn - BA, MA, MEd, PhD
Morrison, Margaret - BA, MA, PhD
Mullin, Amy - BA, PhD
Nagel, Jennifer - DPhil
Novak, David - AB, PhD
Pickave, Martin - BA, MA, PhD
Raffman, Diana - PhD *(Coordinator of Graduate Studies)*
Rattan, Gurpreet - AM, MPH, DPhil
Ripstein, Arthur S - BA, PHM, LLM, PhD
Rozemond, Marleen - BA, PhD
Seager, William Edward - BA, MA, PhD
Sedivy, Sonia - BA, PhD
Shen, Vincent Tsing-song - PhD
Smith, Brian Cantwell - BS, MS, PhD
Stefanovic, Ingrid - BA, MA, PhD
Tenenbaum, Sergio - MA, PhD
Thompson, Evan - AB, MA, PhD
Thompson, Paul - BA, MA, PhD
Walsh, Denis - BA, MPH, PhD
Whiting, Jennifer - BA, MA, PhD
Wilson, Jessica Marie - BM, PhD
Yi, Byeong-Uk - PhD

Members Emeriti
Canfield, John - BA, MA, PhD
De Sousa, Ronald - BA, PhD
Goldstick, Daniel - BA, BPhil, DPhil
Gombay, André - BA, BPhil, MA, PhD
Hacking, Ian - BA, BA, MA, PhD
Robinson, Thomas - BA, BLitt, MA
Sumner, L Wayne - BA, MA, PhD
Urquhart, Alasdair - MA, MA, PhD

Associate Members
Hubner, Karolina - BA, MA
Moreau, Stephanie Sophia - BPhil, BA, JD
Schloesser, Ulrich - PhD
Sepielli, Andrew - AB, JD
Smolin, Lee - PhD
Weisberg, Jonathan - PhD

Physical and Environmental Sciences

Faculty Affiliation
University of Toronto Scarborough

Degree Programs Offered
Environmental Science – MEnvSc, PhD

Overview
The graduate Department of Physical and Environmental Sciences offers opportunities for graduate studies in Environmental Science, leading to the degrees of **Master of Environmental Science** (MEnvSc) and **Doctor of Philosophy** (PhD) in Environmental Science. These programs provide an interdisciplinary approach to environmental science that includes internship or research opportunities. Faculty members are cross-appointed from several departments including physical sciences, biological sciences, engineering, health sciences, forestry and social sciences.

Research and teaching are focused on the interfaces between traditional disciplines in dealing with fundamental scientific issues. Research is clustered into six major categories:
1. Contaminant Flux Through Surface and Subsurface Environmental and Biochemical Cycles
2. Urban Geoscience
3. Remediation and Restoration of Degraded Environmental Systems
4. Great Lake Ecosystems
5. Climate Change and the Environment
6. Environmental Science and Transitional Economies

Contact and Address

Web:
www.utsc.utoronto.ca/envsci/menvsci/
www.utsc.utoronto.ca/~physsci/
E-mail: menvsc@utsc.utoronto.ca
Telephone: (416) 416-287-7357
Fax: (416) 287-7204

Department of Physical and Environmental Sciences
University of Toronto Scarborough
1265 Military Trail
Toronto, Ontario M1C 1A4
Canada

Degree Programs

Environmental Science

Master of Environmental Science
The department offers a 12-month course work Master of Environmental Science (MEnvSc) degree program. Courses within the program fall within the designated 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 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. Ideal applicants will have a science background consisting of two half courses or one full course in each of chemistry, physics, calculus, and biology.
- 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.

Normal Program Length – 3 sessions (full-time)

Course List
EES 1100H	Advanced Seminar in Environmental Science
EES 1101Y	Research Paper in Environmental Science
EES 1102H	Analytical Chemistry for Geoscientists
EES 1103H	Air and Water Quality Sampling and Monitoring
EES 1104H	Methods for the Detection of Pathogens
EES 1105H	Soil Contamination Chemistry
EES 1106H	Geology and Geophysics of the Shallow Subsurface
EES 1107H	Remediation Methods
EES 1108H	Environmental Science Field Camp

EES 1109H Advanced Techniques in Geographic Information Systems
EES 1110H Sediment and Contaminant Transport in Aquatic Systems
EES 1111H Freshwater Ecology and Biomonitoring
EES 1112H Boundary Layer Climates and Contaminant Fate
EES 1113H Groundwater Hydrochemistry and Contaminant Transport
EES 1114H Directed Readings in Environmental Science I
EES 1115H Directed Readings in Environmental Science II
EES 1116Y Internship
EES 1117H Climate Change Impact Assessment
EES 1118H Fundamentals of Ecological Modelling
EES 1119H Quantitative Environmental Analysis
EES 1120H The Dynamics of Contaminant Dispersal in Fluids
EES 1121H Modelling the Fate of Organic Chemicals in the Environment
EES 1122H Global Environmental Security and Sustainable Development
EES 1123H Environmental Regulations
EES 1124H Environmental Project Management
EES 1125H Contaminated Site Remediation
EES 1126H Environmental Tracers

Doctor of Philosophy

Minimum Admission Requirements

Students may be accepted into the PhD program through one of three routes:
1. Following completion of the MEnvSc degree, an MSc degree in environmental science, or a related discipline, or the MASc degree in environmental engineering or related discipline, or equivalent from a recognized university with a minimum of B+ average in all work completed in the master's program.
2. By requesting transfer from a suitable master's program (see above); students may reclassify from the master's program after 12 months of full-time study.
3. In the case of exceptional students, by direct entry, that is, after completing an honours BSc degree in a bachelor's program in a related discipline with a minimum UofT average of A- or equivalent.

Program Requirements
- The execution of an original piece of research in environmental science carried out under faculty supervision and presented in thesis form. The program requires successful defence of a thesis proposal, a departmental oral examination of the completed thesis, and a second oral examination carried out under the auspices of the School of Graduate Studies involving examination by an appropriate at-arms-length examiner
- A total of 2.0 full-course equivalents (FCE) as follows: a mandatory 0.5 FCE (ENV 2200H *Advanced Seminar on Environmental Research*) plus 1.5 FCE

from an approved course list in the graduate program. The courses are required to provide background for the student's research. Courses selected must be approved by the graduate coordinator/program director.
- Students may apply to take a number of PhD-level courses taught by the core faculty both within the Department of Physical and Environmental Sciences (DPES) and outside DPES that can be considered for the PhD degree (see examples in the Course List section below) as part of their 1.5 FCE credits for the degree; however, all courses for PhD degree credit must be approved by the graduate coordinator/program director.
- During admission, if a student's preparedness is assessed as being insufficient, the student will be required to take additional courses. It is expected that graduates of the MEnvSc research stream, or other graduate programs listed above, normally will have sufficient background at the time of admission.
- The degree requirements consist of successful completion of course work, a thesis proposal, and a thesis.
- The degree program has been designed so that it can be completed within:
  o **four years** for students who have completed a related master's degree.
  o **five years** from the start of enrolment in the MSc program for students transferring from the master's program.
  o **five years** for direct-entry students from a bachelor's program.
- Progress through the PhD program for students admitted with a master's degree:
  o Year I: complete course work
  o Year II: complete and defend thesis proposal; start thesis research
  o Year III: research and thesis writing
  o Year IV: thesis writing and dfense

Course List

Core Course
EES 2200H Advanced Seminar in Environmental Science

Elective Courses
EES 1102H Analytical Chemistry for Geoscientists
EES 1103H Air and Water Quality Sampling and Monitoring
EES 1104H Methods for the Detection of Pathogens
EES 1105H Soil Contamination Chemistry
EES 1106H Geology and Geophysics of the Shallow Subsurface
EES 1107H Remediation Methods
EES 1109H Advanced Techniques in Geographic Information Systems
EES 1110H Sediment and Contaminant Transport in Aquatic Systems

EES 1111H   Freshwater Ecology and Biomonitoring
EES 1112H   Boundary Layer Climates and Contaminant
     Fate
EES 1113H   Groundwater Hydrochemistry and Contam-
     inant Transport
EES 1117H   Climate Change Impact Assessment
EES 1118H   Fundamentals of Ecological Modelling
EES 1119H   Quantitative Environmental Analysis
EES 1120H   The Dynamics of Contaminant Dispersal in
     Fluids
EES 1121H   Modeling the Fate of Organic Chemicals in
     the Environment
EES 1122H   Global Environmental Security and
     Sustainable Development
EES 1126H   Environmental Tracers
EES 2201H   Advanced Readings in Environmental
     Science

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) 946-8641
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 sciences (1.0 FCE), social sciences, and/or humanities and/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.
  - 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 regulating 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
- 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.

Normal Program Length – 6 sessions (full-time); 3 sessions (advanced standing)

Course List

PHT 1001H Introduction to Professional Physical Therapy Practice, Evaluation and Research
PHT 1002Y Cardiorespiratory and Exercise Physical Therapy Practice
PHT 1003Y Musculoskeletal Physical Therapy Practice
PHT 1004Y Clinical Internship—Cardiorespiratory (Honours/Pass/Fail)
PHT 1005Y+ Neurological Physical Therapy Practice
PHT 1006Y Research and Program Evaluation for Physical Therapy Practice I
PHT 1007Y Clinical Internship—Neuroscience (Honours/Pass/Fail)
PHT 1008Y+ Advanced Neuromusculoskeletal Physical Therapy Practice
PHT 1009Y Clinical Internship—Musculoskeletal II (Honours/Pass/Fail)
PHT 1010Y Research and Program Evaluation for Physical Therapy Practice II (Honours/Pass/Fail)
PHT 1011Y Clinical Internship—Selective (Honours/Pass/Fail)
PHT 1012Y Research and Program Evaluation for Physical Therapy Practice III
PHT 1014Y Clinical Internship—Musculoskeletal (Honours/Pass/Fail)

Selective Course

PHT 1015Y 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.)

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Graduate Faculty

Full Members
Agur, Anne - BSc, MSc, PhD
Berg, Katherine - BPT, BSc(PT), MSc, PhD *(Chair & Graduate Chair)*
Brooks, Dina - BSc(PT), MSc, PhD
Cott, Cheryl - DIPP, BPT, MSc, PhD
Davis, Aileen - BSc(PT), MSc, PhD
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)
Ellerton, Cindy - BSc(PT), MSc
Evans, Catherine - BSc, MSc, PhD *(Coordinator of Graduate Studies)*
Gibson, Barbara - MSc, BMR(P/T), PhD
Howe, Joanne - DIPP, DIPOT, BSc
Hunter, Judith - BPT, MSc, PhD
Koeberle, Paulo - BS, PhD
Landry, Michel - BSc(PT), MSc(PT), PhD
Mathur, Sunita - BSc(PT), MSc(PT), PhD
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, PhD
O'Brien, Kelly - BSc(PT), BS, PhD
Salbach, Nancy - BSc(PT), BS, MSc, PhD
Switzer-Mcintyre, Sharon - BSc, BPHE, PhD
Wright, Virginia - BSc, 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:
  - **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).
  - **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).
  - **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.

Normal Program Length – 3 sessions (full-time)

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.
- 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 Dynamics
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 2605H   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 6011Y   Research in Atmospheric Physics
PHY 6021Y   Research in Biophysics
PHY 6031Y   Research in Condensed Matter Physics

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

PHY 6041Y   Research in Geophysics
PHY 6051Y   Research in Quantum Optics
PHY 6071Y   Research in Subatomic Physics and
            Astrophysics

Graduate Faculty

Full Members

Abbatt, Jonathan - BSc, PhD
Bailey, David - BSc, PhD
Bailey, Richard - BSc, PhD
Barzda, Virginijus - BS, DSc
Bond, J Richard - BSc, MS, PhD, Fell Royal Society
Canada, Fell Royal Society London
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, Assoc Royal Coll of Sci
Gradinaru, Claudiu - PhD
Griffin, P Allan - BSc, MSc, PhD
Holdom, Bob - BSc, MA, PhD
James, Daniel - BA, PhD
John, Sajeev - PhD
Jones, Dylan - AB, SM, PhD
Joy, Michael - BSc, MASc, PhD
Julian, Stephen - BSc, MS, PhD *(Associate Chair for Graduate Studies)*
Kay, Lewis - PhD
Kee, Hae-Young - PhD
Key, Anthony - MA, DPhil
Kim, Yong Baek - PhD
Kim, Young-June - BS, 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
McMillen, David - BSc, MS, PhD
Milkereit, Bernd - DrRerNat
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, Assoc Royal Coll of Sci
Paramekanti, Arun - BE, PhD
Peet, Amanda - PhD

Peltier, W Richard - BSc, MSc, PhD
Pen, Ue-Li - BSc, PhD
Pfeiffer, Harald - PhD
Poppitz, Erich - PhD
Repka, Joseph - BSc, PhD
Ryu, William - AB, PhD
Savard, Pierre - PhD
Shepherd, Theodore - BSc, PhD
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
Litherland, Albert - BSc, PhD, Fell Royal Society London
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 - BEng, DPhil
West, Gordon - BASc, MA, PhD
Wong, Samuel - BA, 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, MSc, 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 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
All students are required to:
- take 1.0 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.
- enrol in the continuous credit/no credit seminar course PSL 1000H *MSc Seminars in Physiology* for the duration of their program.
- present and defend a research thesis acceptable to the graduate department.
- do one of the following after 12 to 18 months in the MSc program:
  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.

Normal Program Length – 6 sessions (full-time)

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
  - 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
- All students are required to take 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.
- Students enrol in the continuous credit/no credit course PSY 2000H *PhD Seminars in Physiology* for the duration of their 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.

Normal Program Length – 4 years (full-time PhD); 5 years (transfer or direct-entry PhD)

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 1000H°	MSc Seminars in Physiology (Credit/No Credit)
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 1048H	Translational Physiology
PSL 1050H	Hippocampus: Cell to Behaviour
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

° Courses which may continue over a program. The course is graded when completed.

PSL 1071H   Advanced Topics: Computational Neuroscience
PSL 1480H   Advanced Topics: Investigative Developmental Physiology
PSL 2000H°   PhD Seminars in Physiology (Credit/No Credit)

Joint Graduate/Undergraduate

JNR 1444Y   Fundamentals of Neuroscience: Cellular and Molecular
JNS 1000Y   Fundamentals of Neuroscience: Systems and Behaviour
PSL 1374H   Advanced Physiology Laboratory
PSL 1420H   Reproductive Physiology
PSL 1421H   Pregnancy and Birth: From Implantation to Newborn
PSL 1425H   Integrative Metabolism and Its Endocrine Regulation
PSL 1432H   Theoretical Physiology
PSL 1441H   Systems Level Neuroplasticity
PSL 1445H   Mechanistic Molecular and Cellular Neuroscience
PSL 1446H   Molecular and Celluar Aspects of Neural Disorders
PSL 1452H   Fundamentals of Ion Channel Function
PSL 1454H   Physiological Instrumentation and Electronics
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 - DrMedVET, 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
Caniggia, Isabella - MD, PhD
Carlen, Peter - MD
Casper, Robert - MD
Challis, John - BSc, PhD, DSc, Fell Royal Society Canada
Charlton, Milton - BSc, MSc, PhD
Coates, Allan - BEng, MDCM, MDCH
Diamant, Nicholas - MDCM
Dostrovsky, Jonathan - BSc, MSc, PhD

Duffin, James - BASc, MASc, PhD
Eubanks, James - BSc, AA, PhD
Fantus, George - BSc, MDCM
Feng, Zhong Ping - PhD
Frankland, Paul - MA, PhD
Gaisano, Herbert - BS, MD
Giacca, Adria - MD
Gramolini, Anthony - BSc, MSc, PhD
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 - ScD
Lambe, Evelyn - AB, MSc, PhD
Lewis, Gary - BCH, MBChB
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 *(Chair & Graduate Chair)*
Miller, Freda - BSc, PhD
Mills, Linda - PhD
Monnier, Philippe - MBA, PhD
Mount, Howard - BSc, PhD
Ng, Dominic - MD
Orser, Beverley - MD
Palmert, Mark - MD
Pang, Cho - BSc, MSc, PhD
Pennefather, Peter - BSc, PhD
Post, Martin - PhD
Quaggin, Susan Elizabeth - MD
Rocheleau, Jonathan - BSc, PhD
Roder, John - PhD
Rosenblum, Norman - MD
Salter, Michael - MD, PhD
Schlichter, Lyanne - BSc, MSc, PhD
Seltzer, Ze'ev - DMD, BMedSc
Sessle, Barry - BS, MSD, BDS, PhD
Skinner, Frances - PhD
Sole, Michael - BSc, MD
Stanley, Elise - PhD
Sugita, Shuzo - PhD, PhD
Sweezey, Neil - BSc, 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

° Courses which may continue over a program. The course is graded when completed.

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
Wittnich, Carin - MSc, DVM
Wojtowicz, J. Martin - BSc, PhD
Zhen, Mei - PhD
Zhuo, Min - MS, PhD

Members Emeriti

Atwood, Harold - BA, MA, PhD, PhD, DSc, DSc, Fell
 Royal Society Canada
Kwan, Hon - BASc, MSc, PhD
Norwich, Kenneth - MSc, PhD

Associate Members

Chauhan, Vijay - MD
Dhe-Paganon, Sirano - BSc, DChem
Fisher, Joseph - MD
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

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. **Diaspora and Transnational Studies**
   - Political Science, MA, PhD
3. **Dynamics of Global Change**
   - Political Science, PhD
4. **Environmental Studies**
   - Political Science, MA, PhD
5. **Ethnic and Pluralism Studies**
   - Political Science, MA, PhD
6. **Global Health**
   - Political Science, PhD
7. **International Relations**
   - Political Science, MA
8. **Jewish Studies**
   - Political Science, MA, PhD
9. **Sexual Diversity Studies**
   - Political Science, MA, PhD
10. **South Asian Studies**
    - Political Science, PhD
11. **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. ***This program is ceasing admissions effective September 2010.***

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: http://politics.utoronto.ca/graduate
E-mail: poligrad@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

Master of Arts

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 http://politics.utoronto.ca/graduate/application-procedures/.

Program Requirements
- Minimum of 4.0. full-course equivalents (FCE). See the specific requirements of each field below.
- Programs in which additional requirements or prerequisites must be met may take longer than three sessions to complete.
- The equivalent of 1.0 FCE may be taken in a cognate discipline with the approval of the department.
- All students, except those who declare Political Theory as a field or who are enrolled in collaborative programs with a similar requirement, must complete a full-year research seminar course and its required

assignment of a 30-50 page research major paper. POL 2810Y and POL 2811Y are the two seminars currently offered which meet this requirement.

Field - Political Theory
- 2.0 FCE in political theory.
- At least 1.0 FCE in an area outside political theory.
- All courses must be chosen in consultation with the MA supervisor.

Field - Political Science
- At least 0.5 FCE in political theory, which can be either the 0.5 FCE offered by the department specifically for this purpose (POL 2040H) or any other theory course.
- At least 0.5 FCE in statistics or research design. POL 2502Y, POL 2503H, and POL 2504H are among the courses currently offered by the department which meet this requirement.

Field - Political Economy of International Development (PEID)
- JPE 2408Y
- 0.5 FCE in economics or equivalent, normally ECO 2700H, selected from the economics course list (see list on the departmental Web site in the PEID program description).
- 1.0 FCE taken from the approved political science course list.
- To fulfil the Political Economy requirement, students must complete one of the MA Research Seminars, POL 2810Y or POL 2811Y, with political economy as the focus of the major research paper.
- The remaining 0.5 FCE can be a course from any of the three lists.

Normal Program Length – 3 sessions (full-time)

Combined Juris Doctor/Master of Arts in Law and Political Science

This combined program has ceased admissions effective September 2010. The Collaborative Program in International Relations, which is a required component of the Combined Program, has ceased admissions effective September 2010.

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.

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 International Relations will complete the following requirements in years 2 and 3:
  - JHP 2231H, ECO 2302H, LAW 252H, 1.0 FCE in International Relations elective courses, and 1.5 FCE in Political Science courses.
- For minimum period of registration and time limit please refer to the individual entries for the two degrees.

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.
- For minimum period of registration and time limit, please refer to the individual entries for the two degrees.

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://politics.utoronto.ca/graduate/application-procedures/.

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.
- **Field examinations**: All PhD students are required to complete Field Examinations in Field 1 and Field 2 by the end of Year 2. The Field 1 examination should be taken in May or August of the year in which the core course is taken as long as all assignments in the core course have been completed. The Field 2 examination must be taken no later than the second year of the PhD 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 student is permitted two attempts to pass the examination in a new field.

- **Thesis proposal, thesis committee, and thesis schedule**. Students should assign a high priority to defining a thesis topic and choosing a thesis committee. By 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
- 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
- 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.

Normal Program Length – 4 years (full-time post-master's PhD); 5 years (full-time, direct-entry PhD or transfer)

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*
POL 2010H   Democratic Theory
POL 2011H   Problems in the Political Thought of the Socratic School
POL 2016H   Topics in the Philosophy of Law
POL 2019Y   Moral Reason and Economic History
POL 2021Y   Comparative Studies in Jewish and Non-Jewish Political Thought
POL 2024H   Feminist Theory: Challenges to Legal and Political Thought
POL 2025Y   Enlightenment and its Critics
POL 2026H   Topics in Political Thought I
POL 2027H   Topics in Political Thought II
POL 2027Y   Topics in Political Thought II
POL 2028H   Approaches to Political Theory
JPJ 2028H   Constitutional Theory
JPJ 2029H   Religion and the Liberal State: the Case of Islam
POL 2030Y   The Spirit of Democratic Citizenship
POL 2032H   Judgement in Law and Politics
JPJ 2036Y   Comparative Constitutionalism: Rights and Judicial Review
POL 2037H   Law, Religion, and Public Discourse
JPD 2037Y   Post-Modern and Contemporary Thought
POL 2038Y   Pluralism, Justice, and Equality
POL 2040H   Horizons of Political Reflection
POL 2041Y   Politics of Origin
JPJ 2047H   Comparative Constitutional Law and Politics
JPR 2057H   Democracy and the Secular
POL 2071H   The Political Thought of George Grant
POL 2083H   Cosmopolitanism*
POL 2127Y   Multiculturalism in Canada
PHL 2141H   Political Philosophy
POL 2212H   Human Rights Politics and International Relations
POL 2226H   Ethics and International Relations
POL 2235H   Development, International Relations, Globalization: Through the Lens of a Gender
POL 2423H   Colonialism/Post-Colonialism: The Colonial State and its Forms of Power
POL 2801H   Special Topics
RLG 3622H   Maimonides and His Modern Interpreters

Canadian Politics

POL 2100Y   Government of Canada (core course)
POL 2102H   Topics in Canadian Politics I
POL 2103H   Topics in Canadian Politics II
POL 2110H   The Politics of Public Sector Budgeting
POL 2126H   Canadian Public Sector Management
POL 2127Y   Multiculturalism in Canada
JPJ 2133H   Constitutional Courts and Constitutional Rights
POL 2139H   The Canadian Welfare State in Comparative Perspective
POL 2190Y   Topics in Canadian Politics I
POL 2191Y   Topics in Canadian Politics II
JPJ 2220H   Public Law, Social Regulation, and Poverty
POL 2317H   Politics and Policy Analysis
HAD 5011H   Canada's Health System and Health Policy
HAD 5765H   Case Studies in Health Policy

International Relations

POL 2200Y   International Politics (core course)
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
JHP 1631H   Intelligence and International Relations
JPJ 2031H   Telecommunications and Internet Law
JPJ 2035H   International Taxation
JPJ 2037H   International Trade Regulation
JPJ 2039H   European Community Law
JPJ 2042H   Labour Policy
JPJ 2045H   Institutionalizing Doubt: Modernity and the Challenge to Traditional Legal Traditions
JPJ 2046H   Law, Institutions, and Development
JPJ 2048H   The Law and Praxis of International Human Rights
JPJ 2049H   Women's Rights in International Law
JPJ 2050H   Legal Issues in Cyberspace
JPJ 2051H   Foundations of the Law of the European Union
POL 2202H   Advanced Topics in International Political Economy
POL 2205H   Topics in International Politics I
POL 2206H   Topics in International Politics II
POL 2207H   Topics in International Politics III
POL 2208Y   Third World Politics in International Affairs
POL 2210Y   Elements of United States Foreign Policy
POL 2211Y   International Political Economy of Finance
POL 2212Y   Human Rights Politics and International Relations
POL 2213H   Global Environmental Politics
POL 2214H   Global Health in a Changing World
POL 2216Y   The Military Instrument of Foreign Policy
POL 2217Y   Politics of the International System
POL 2218H   Political Economy of International Trade
POL 2226H   Ethics and International Relations

POL 2228H   The Dynamics of the Global Trade System
JBP 2230H   Topics in International Politics
JHP 2231H   The History and Philosophy of International Relations Thought
JPD 2232H   Global Governance
POL 2233H   Conflict and Conflict Management
POL 2234H   Globalization, Internationalization, and Public Policy
POL 2235H   Development, International Relations, Globalization: Through the Lens of a Gender
POL 2240Y,H The Geopolitics of Information and Communication Technologies
POL 2256Y   The G8, G20, and Global Governance
POL 2260H   Security Ontology
POL 2314H   Political Economy of Eastern Asia
POL 2801H   Special Topics

Comparative Politics
POL 2300H   Comparative Politics of Industrial Societies (core course)
POL 2700Y   Comparative Politics (core course)
JHP 1289Y   Twentieth-Century Ukraine
JPJ 2036Y   Comparative Constitutionalism: Rights and Judicial Review
JPJ 2047H   Comparative Constitutional Law and Politics
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 2307H   Political Economy of Technology: from the Auto-Industrial to the Information Age
POL 2308Y   Politics and Governments of Eastern Europe
JPA 3210H   Democracy and Identity in Asia
POL 2313Y   Comparative Political Parties and Elections
POL 2315H   Minorities in Modern Germany: Questions of Religion, Ethnicity, Sexuality. and Race
POL 2316H   Women and Politics
POL 2317H   Politics and Policy Analysis
POL 2318H   Comparative Public Policies: Selected Areas
POL 2320H   Asia and the New Global Economy
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 2337H   Government Law and Politics in Russia
POL 2338H   Innovation and Governance

POL 2341H   Political Economy of Transition: Ukraine and the CIS
POL 2344H   Politics of Independent Ukraine
POL 2361H   Globalization and Indigenous Politics
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

Development Studies
POL 2400H   Theories and Issues -The Politics of Development (core course)
POL 2208Y   Third World Politics in International Affairs
POL 2214H   Global Health in a Changing World
POL 2218H   The Political Economy of International Trade
POL 2235H   Development, International Relations, Globalization: Through the Lens of a Gender
JPA 2310H   Democracy and Identity in Asia
POL 2322H   Topics in Comparative Politics II
POL 2326H   Democracy and Dictatorship
POL 2391H   Topics in Comparative Politics III
POL 2392Y   Topics in Comparative Politics IV
POL 2403H   Topics in African Politics I
POL 2404H,Y Topics in African Politics II
POL 2405H   Topics in Latin American Politics
JPE 2408Y   Political Economy of International Development
POL 2409Y   Politics and Planning in Third World Cities
POL 2411H   Topics in Asian Politics
JPE 2415Y   Research Essay: Political Economy of Development
POL 2416Y   Politics and Society in Contemporary China
POL 2418H   Topics in Middle East Politics
POL 2420H   Globalization, Gender and Development
POL 2423H   Colonialism/Post-Colonialism
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)
POL 2110H   The Politics of Public Sector Budgeting
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   Special Topics I
POL 2801H   Special Topics II
POL 2904Y   Reading course in an approved special field
POL 2905H   Reading course in an approved special field
POL 2906Y   Reading course in an approved special field

Graduate Faculty

Full Members
Adler, Emanuel - PhD
Andersen, Robert - BA, MA, PhD
Balot, Ryan - BA, AM, PhD
Bashevkin, Sylvia - BA, MA, PhD
Bathelt, Harald - 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, Graduate Chair, Fell Royal Society Canada
Carens, Joseph - AB, MPH, MPH, PhD
Chambers, Simone - BA, MPH, MA, PhD, *(Coordinator of Graduate Studies)*
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, Antoinette - BA, MPH, PhD
Hansen, Randall - BA, MPH, PhD, Canada Research Chair
Hirschl, Ran - BA, LLB, MA, MPH, PhD, Canada Research Chair

Jung, Courtney - BA, MA, PhD
Kingston, Paul - BA, MA, MPH, DPhil
Kingston, Rebecca - BA, MA, PhD
Kirton, John - BA, MA, PhD
Kohn, Margaret - BA, MA, PhD
Kopstein, Jeffrey - BA, MA, PhD
LeDuc, Lawrence - BA, MA, PhD
Magocsi, Paul - BA, MA, MA, PhD, Fell Royal Society Canada
McCarney, Patricia - BA, MCP, PhD
Nedelsky, Jennifer R - BA, MA, PhD
Nevitte, Neil - BA, MA, PhD, Fell Royal Society Canada
Orbinski, James - MA, MD
Orwin, Clifford - AB, AM, PhD
Pauly, Louis - BA, MA, MSc, MSc, PhD, Canada Research Chair
Rayside, David - BA, MA, PhD
Roach, Kent - BA, LLB, LLM
Rubinoff, Arthur - BA, MA, PhD
Sandbrook, Richard - BA, MA, DPhil, Fell Royal Society Canada
Schatz, Edward - PhD
Schneiderman, David - BA, LLB, LLM
Schwartz, Donald - BA, MA, PhD
Shachar, Ayelet - LLB, BA, LLM, SJD
Simeon, Richard - BA, MA, PhD, Fell Royal Society Canada
Skogstad, Grace – DrRerPol
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
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, Canada Research Chair

Members Emeriti
Andrew, Edward - BA, PhD
Clarkson, Stephen - BA, BA, MA, PhD, Fell Royal Society Canada
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, Fell Royal Society Canada
Rotstein, Abraham - BA, PhD
Russell, Paul - BA, BEd, MA
Russell, Peter - BA, BA, Fell Royal Society Canada
Stren, Richard - BA, MA, PhD
Tuohy, Carolyn - BA, MA, PhD, Fell Royal Society Canada
Watkins, Melville - BCom

Associate Members

Borins, Sandford - BA, PhD
Breunig, Christian - MA, MA, PhD
Choudhry, Sujit - LLB, LLM
Esberey, Joy - BEd, BA, BSc, MA, PhD
Gilady, Lilach - BA, MPH, MA, PhD
Henderson, Ailsa - PhD
Indart, Gustavo - BA, MA, PhD
Levine, Renan - BA, PhD
Marshall, Ruth - BA, MA, DPhil
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 Programs Centre
Web: www.utm.utoronto.ca/pgpc1.0.html
E-mail: anna.reale@utoronto.ca
Telephone: (905) 569-4432
Fax: (905) 828-3979

University of Toronto at Mississauga
Room 3200, 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:
  o attend the professional school of a professional accounting body, or
  o write professional accounting examinations, or
  o complete a consulting or work-term project

Normal Program Length – 7 sessions (full-time)

Course List

Notations for all courses are indicated in parenthesis following the course code and are determined as follows:

Credit Hours	Notation
0	CR/NCR (Credit/No Credit)
1	one module
2	two modules
3	three modules

One module equals 5 weeks with 3 contact hours per week. One module equals .25 FCE (full-course equivalent).

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 1111H	Marketing
MGT 1112H	Business Finance
MGT 1113H	Accounting II
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 2004H(2)	Advanced Concepts in Strategic 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 2091H	Advanced Financial Accounting
MGT 2111H	Taxation I
MGT 2113H	Taxation II
MGT 2114H	Financial Reporting 1
MGT 2205H(3)	Advanced Financial Accounting
MGT 2206H(3)	Taxation I
MGT 2207H(3)	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 2252H	Financial Reporting II

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

MGT 2260H(3)	Management Control
MGT 2261H(2)	Advanced Management Accounting
MGT 2273H(2)	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.

Normal Program Length – 6 sessions over 26 months (part-time)

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

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

Full Members
Aivazian, Varouj - BS, MA, PhD
Brooks, Leonard - BCom, MBA, CA *(Program Director)*
Li, Yue - BSc, MBA, PhD
Rotenberg, Wendy - PhD
Smieliauskas, 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

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. **Neuroscience**
   - Psychology, MA, PhD
4. **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
- Courses and individual research training leading to a thesis.
- In the MA year, students must complete the following 2.0 FCE as follows:
  - PSY 1000H Directed Studies to prepare for the MA thesis research
  - PSY 2001H Design of Experiments I, experimental design and statistics
  - 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.

Normal Program Length – 3 sessions (full-time)

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 fulfil the Ph.D. requirements; however, exemptions may be granted by the graduate director of the Department of Psychology.

Normal Program Length – 4 years

Course List

Not all courses are offered each year. For current offerings, consult the Coordinator of Graduate Studies.

PSY 1000H   Directed Studies
PSY 1200H,Y   Selected Topics in Psychology
PSY 1500H   Conceptual Bases of Psychology
PSY 2001H   Design of Experiments I
PSY 2002H   Design of Experiments II

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

° 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.

Perception/Cognition/Cognitive Neuroscience

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 Ill
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 3000H°   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)
PSY 4711H   Practicum in Applied Psychology (Credit/No Credit)
PSY 4720H,Y[+]   Internship in Applied Psychology (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
Bagby, Michael - PhD
Barense, Morgan - BA, PhD
Bassili, John - BA, PhD
Blankstein, Kirk - BA, MA, PhD
Bors, Douglas - AB, AM, DPhil, PhD
Buchsbaum, Bradley - BS, 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
Haley, David - BA, MPSY, PhD
Hasher, Lynn - AB, PhD
Helwig, Charles - BA, PhD
Herman, C Peter - BA, PhD
Inzlicht, Michael - BS, MS, PhD
Jenkins, Jennifer - BA, MA, PhD
Johnson, Elizabeth - PhD
Joordens, Steve - BA, MA, PhD

Kraemer, Gary - PhD
Latham, Gary - BA, MS, PhD
Levine, Brian - BA, MA, PhD
Lewis, Marc - BA, MA, PhD
Lockwood, Penelope - BA, MA, 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)**
Murphy, Kelly - BSc, MA, PhD
Niemeier, Matthias - MA, PhD
Nobrega, Jose - PhD
Nussbaum, David - BA, MA, PhD
Page-Gould, Elizabeth - BS, PhD
Paus, Tomas - PhD
Peterson, Jordan - BA, BA, PhD
Petit, Ted - BS, MA, PhD
Petitto, Laura Ann - BSc, MPsy, MA, PhD
Pichora-Fuller, Kathy - AB, MS, DPhil
Plaks, 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
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
Takehara, Kaori - BSc, MSc, PhD
Taylor, Margot - BA, MA, PhD
Vaccarino, Franco - BSc, MSc, PhD
Vartanian, Oshin - BSc, PhD
Welsh, Timothy - BPHE
Winocur, Gordon - BA, MA, PhD
Yeomans, John - BA, PhD
Zakzanis, Konstantine - BA, AM, DPhil
Zelazo, Philip - PhD

Members Emeriti

Abramovitch, Rona - BA, MA, PhD
Craik, Fergus - BSc, PhD
Freedman, Jonathan - BA, PhD
Grusec, Joan - BA, PhD
Kennedy, John - BSc, MSc, PhD
Lockhart, Robert - BA, MA, PhD

Shettleworth, Sara - 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, PhD
Community Health – MScCH

Collaborative Programs
The following collaborative programs are available to students in participating degree programs as listed below:
1. **Aboriginal Health**
   - Public Health Sciences, MPH, PhD
2. **Addiction Studies**
   - Public Health Sciences, 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. **Cardiovascular Sciences**
   - Public Health Sciences, MSc, PhD
6. **Community Development**
   - Public Health Sciences, MPH
7. **Environment and Health**
   - Public Health Sciences, MPH, MSc, PhD
8. **Global Health**
   - Public Health Sciences, PhD
9. **Health Care, Technology and Place**
   - Public Health Sciences, PhD
10. **Health Services and Policy Research**
    - Public Health Sciences, MSc, PhD
11. **Sexual Diversity Studies**
    - Public Health Sciences, MPH, MSc, PhD
12. **Women and Gender Studies**
    - Public Health Sciences, MPH, PhD
13. **Women's Health**
    - Public Health Sciences, MPH, PhD

Overview
The new Dalla Lana School of Public Health has more than 300 graduate students and offers both master's and doctoral degrees. In addition, the school has more than 40 postgraduate students in its two Royal College Residency Programs: Community Medicine and Occupational Medicine. The School is also engaged in teaching at the undergraduate level in the Faculty of Medicine, Faculty of Arts and Science, Bloomberg Faculty of Nursing, and 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 at 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. Five specializations are offered:
1. Epidemiology
2. Community Nutrition
3. Family and Community Medicine
4. Health Promotion (Social and Behavioural Health Sciences)
5. 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 and/or individuals who can demonstrate significant experience in the health-care field. 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.

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.
  - **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.
  - **Part-time students** have a maximum of six years to complete the program.

Advanced Standing Option, Community Nutrition field
Applicants to the Community Nutrition field may be eligible to be considered for the advanced standing option with the following minimum admission requirements:
- Four-year undergraduate degree in food and nutrition (or equivalent) from a recognized university, with a minimum mid-B average in the final year.
- Membership in a provincial dietetics-regulatory body or equivalent in home country.
- Five-years' professional work experience in clinical, community, administrative, or public health dietetics.

Advanced Standing Community Nutrition Program Requirements
- The advanced standing option of the MPH Nutrition field is a course-work only program that requires the completion of 5.0 full-course equivalents (FCE), including 0.5 FCE of a core Public Health Sciences subject, 0.5 to 1.0 FCE in supervised field placements or practica, 3.0 FCE in field-specific required courses; and 0.5 to 1.0 FCE in elective courses.
- Students can complete this option in 12 months of intensive full-time study or over a maximum period of five years of part-time study.

Normal Program Length – 5 sessions over 2 years (full-time); 15 sessions (part-time)

Master of Science

Minimum Admission Requirements
- Appropriate four-year undergraduate degree from the University of Toronto, or its equivalent from a recognized university, with a minimum mid-B average in the final year.

Program Requirements
- Students specializing in Biostatistics may choose a course-only or thesis program. See the Web site for details.
  - **Full-time students** can complete the program in 12 months.
  - **Part-time students** have a maximum of five years to complete the program.

Normal Program Length – 3 sessions (full-time); 15 sessions (part-time)

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.
- Consult the Web site for details.

Program Requirements

Full-Time PhD
- 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.
- Demonstrated 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).
- 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.

Normal Program Length – 4 years (full-time PhD); 8 years (flexible-time PhD)

Community Health

Master of Science in Community Health

Minimum Admission Requirements
- An undergraduate degree in a public health specialty and/or one of the regulated health professions in Ontario with the equivalent of a minimum mid-B average in the final academic year.
- Relevant academic preparation and professional experience as either a public health, community, or clinical practitioner.
- Some fields (i.e., FCM, PHN, and WPC) require appropriate certification/licensure in a regulated health profession and may require a valid license to practice in Canada or the student's home jurisdiction.
- A Diploma in Community Health may be awarded in exceptional circumstances to students who have completed 70% of the program requirements at least 3.5 full-course equivalents of the program requirements, including the required courses for the field, and with the approval of the department.

Program Requirements
- The MScCH is a course-work only program which requires the completion of 5.0 full course equivalents (FCE), including 0.5 FCE of a core Public Health Sciences subject; 0.5 to 1.0 FCE in supervised field placements or practica, normally 2.5 FCE in field-specific required courses; and 1.0 to 1.5 FCE in elective courses.
- The specific program requirements, course sequences, and options vary by field of specialization; they are fully outlined on the Web site.
- Students can complete the program in 12 months of intensive full-time study or over a maximum period of 5 years of part-time study.

Normal Program Length – 3 sessions (full-time); 15 sessions (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   Public Health Nutrition
NFS 1204Y[o]   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
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

[o] Courses which may continue over a program. The course is graded when completed.

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
CHL 5608H Teaching and Learning by the Health Professions: Practical Issues and Approaches
CHL 5609H Continuing Education in the Health Professions
CHL 5610H Theory and Practice of Behaviour Change in Health Professional Settings
CHL 5611H Continuing Education Planning, Management and Evaluation in the Health Professions
CHL 5612H The Theory and Application of Interprofessional Education for Collaborative Patient-Centred Practice
CHL 5623H Practical Management Concepts and Cases in Leading Small Health Organizations
CHL 5630Y Wound Prevention and Care

Global Health
CHL 5700H Global Public Health
CHL 5701H Doctoral Seminar, Collaborative Program in Global Health
CHL 5702H History of International Health
CHL 5703H Urban Epidemics

Health Promotion
CHL 5801H Health Promotion
CHL 5803H Health Promotion Strategies
CHL 5804H Health Behaviour Change
CHL 5805H Critical Issues in Health Promotion Practice
CHL 5806H 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
CHL 5308H Public Health Policy Analysis

Social and Behavioral Health Sciences
CHL 5101H Social Theory and Health
CHL 5102H Social and Political Forces in Health
CHL 5109H Gender and Health
CHL 5110H Theory and Practice of Program Evaluation
CHL 5111H Qualitative Research Methods
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 5120H Population Health Perspectives on Mental Health and Addictions
CHL 5121H Genomics, Bioethics and Public Policy
CHL 5122H Qualitative Research Practice (Credit/No Credit)
CHL 5123H Issues in the Transdisciplinary Research and the Health of Marginalized Population
CHL 5124H Public Health Ethics
CHL 5150H Social Science Research

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Practica and Related Courses

CHL 5690H   MSc CH Required Practicum (Credit/No Credit)

CHL 5691H   MSc CH Optional Practicum (Credit/No Credit)

CHL 6010Y⁺   Required MPH Practicum (Credit/No Credit)

CHL 6011H⁺   Required Practicum Extension (Credit/No Credit)

CHL 6020Y⁺   Optional MPH Practicum (Credit/No Credit)

CHL 6021H⁺   Optional Practicum Extension (Credit/No Credit)

CHL 6022Y⁺   Long Extension to Optional Practicum (Credit/No Credit)

Reading Courses and Research Projects

CHL 7001H   Directed Reading in an Approved Field of Community Health

CHL 7002H   Approved Research Project in an Approved Field of Community Health

Collaborative Program Courses

Addiction Studies

CHL 5417H   Tobacco and Health: From Cells to Society

PAS 3700H   Multidisciplinary Aspects of Addiction Studies

PAS 3701H   Advanced Research Issues in Addictions

Aging and the Life Course

AGE 1000H   Multidisciplinary Research Concepts in Palliative and Supportive Care

AGE 1500H   Advanced Research Methodologies in Palliative and Supportive Care

AGE 2000H   Social Determinants of Aging and Health

AGE 2500H   Research Topics in Aging and the Life Course

AGE 3000H   Advanced Research Seminar in Aging and the Life Course

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
Bull, Shelley - BMath, MMath, PhD
Calzavara, Liviana - BA, MA, PhD
Cassidy, David - BSc, MSc, PhD
Chalin Clark, Catherine - BSN, MA, MDiv, PhD, RN
Cheung, Angela - BA, MD, 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
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
Dunn, James - AB, AM, PhD
Eakin, Joan - BA, MA, PhD
Einstein, Gillian - AB, PhD
Escobar, Michael - BS, PhD
Evans, Gregory - 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
Fox, Bonnie - AB, PhD
Frank, Arthur - AB, MA, MPH, 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
Greenwood, Celia - BS, AM, PhD
Grunfeld, Eva - MD, PhD
Harvey, Bart - MSc, MEd, MD, PhD
Hogg-Johnson, Sheilah - BMath, MMath, PhD
Holness, D Linn - MHSc, MD
Hung, Rayjean - MSc, DrMedVET, PhD
Jadad, Alejandro - MD, DPhil
Karmali, MohaMEd - MBChB
Knight, Julia - MSc, PhD
Knight, Keith - PhD
Kreiger, Nancy - BA, MPH, PhD
Lavery, James - BA, BS, PhD
Levinson, Wendy - BSc, MD
Loisel, Patrick - MD
Lou, Wen-Yi Wendy - DPhil
Lyons, Renee - BA, MEd, PhD
Mandel, Jack - BSc, MPH, PhD
Mann, Robert - BA, MASc, PhD
Marrett, Loraine - BMath, PhD
Mcdonough, Peggy - BSN, BSc, MSc, PhD
McElhinny, Bonnie - PhD
McKeever, Patricia - BN, MSA, DPhil, RN
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
O'Campo, Patricia - PhD
Peter, 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
Rosser, Walter - MD
Rush, Brian - PhD
Sakinofsky, Isaac - DPM, MBChB, MD
Sass-Kortsak, Andrea - BSc, MHSc, PhD
Schwartz, Robert - BA, PhD
Scott, James - BSc, PhD
Sellen, Daniel - BA, AM, PhD
Shannon, Harry - BA, MSc, PhD
Shaw, Brian - SB, MA, PhD
Silverman, Frances - PhD
Skinner, Harvey - BA, MA, PhD
Smylie, Janet - MPH
Stafford, James - BS, MS, PhD
Strike, Carol - PhD, PhD
Sun, Lei - BS, PhD
Tarasuk, Valerie - BA, BEd, BASc, MSc, PhD
Tarlo, Susan - MBBS
Tepperman, Lorne - BA, MA, PhD
To, Teresa - BA, MA, PhD
Tomlinson, George - PhD
Tritchler, David - BA, MS
Vachon, Mary - BS, BS, BS, MA, PhD
Valverde, Mariana - BA, MA, PhD, Fell Royal Society
  Canada
Wheaton, Blair - PhD
Willan, Andrew - PhD
Yoshida, Karen - BSc, BPHE, MSc, PhD
Young, Kue - DrMed, 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
Chipman, Mary - BSc, MA
Clarke, E Aileen - MSc, MB
Coburn, David - BA, MA, PhD
Hewitt, David - MA
Kelner, Merrijoy - MA, PhD
Leake, James - DDPH, MSc, DDS
Leriche, William - BSc, MPH, MB, MD
Marshall, Victor - BA, MA, PhD
Miller, Anthony - BA, MA, MB, BCHIR, MD
Osborn, Richard - AB, PhD
Shah, Chandrakant - DCH, MBBS
Wigdor, Blossom - BA, MA, PhD

Associate Members
Abelsohn, Alan - MBChB
Abuelaish, Izzeldin - MPH, MBBS
Adlaf, Edward - BA, MA, PhD

Ahmad, Farah - MPH, MBBS, PhD
Angus, Janet - BScN, MSN, PhD
Arenovich, Tamara - BSc, MSc
Austin, Peter - PhD
Ballantyne, Peri - BA, MA, PhD
Barrera, Maria - MA, PhD
Barwick, Melanie - BA, MA, PhD
Batty, Helen - MEd, MD
Beyene, Joseph - BSc, MSc, PhD
Bilotta, Rose - BSc, MHSc, MD
Binns, Malcolm - MSc, PhD
Boucher, Beatrice - BSc, MHSc
Boutilier-Dean, Marie
Boydell, Katherine Mary - BA, MHSc, PhD
Boyle, Eleanor - BSc, MSc, PhD
Bozek, Paul - BASc, MEng
Breslin, Curtis - PhD
Brewster, Joan - BA, MA, PhD
Brown, Patrick - BA, MSc, PhD
Cairney, John - PhD
Campbell, Kent - BSc, PhD
Campbell, Monica - BSc, MES, PhD
Ceolin, Lissa - BSc, MHSc
Chaban, Michele - MSW
Chatwood, Susan - BScN, MSc
Coleman, Brenda - BA, BScN, MSc, PhD
Copes, Ray - BA, BSc, MSc, MD
Davis, David - BA, MD
Deeks, Shelley - MD
Dong, Weizhen - PhD
Drummond, Ian - PhD
Du Mont, Janice - BA, MEd, EdD
Edwards, Richard - DPhil
Ellison, Philip - MBA, MD
Finkelstein, Michael - BSc, BCH, MHSc, DrMed
Fisman, David - MPH, MD
Fox, Ann - BAA, MHSc, PhD
Franche, Renee-Louise - PhD
Frankford, Rachael - MSW
Freeman, Risa - BSc, MEd, MD
Friedman, Steven Marc - BSc, LMCC, MPH, MD
Gagnon, France - PhD
Garcia, John - BSc, MSc, PhD
Gesink, Dionne - BSc, MSc, DPhil
Ghavam-Rassoul, Abbas - MD
Gibson, Brian - BA, MA, MHSc, MD
Giesbrecht, Norman - BA, MA, PhD
Ginsburg, Ophira - MSc, MD
Glover Takahashi, Susan - BSc, MA, EdD
Gould, Judy - AB, MA, PhD
Gower, Stephanie - BSc, MSc, PhD
Graham, Kathryn - BA, MA, PhD
Green, Lois - DPH, BSc, MSc, DPhil
Greer, Amy - MSc, PhD
Hall, Elizabeth - MSc, MSc, MB, PhD
Hamid, Jemila Seid - BSc, MSc, PhD
Hamilton, Hayley - PhD
Hart, Trevor - BA, PhD
Holmes, Candice - MD
Holowaty, Eric - MSc, MD, DPH
Hosein, H Roland - BSc, MSc, PhD

House, Ronald - BSc, BASc, MSc, MSc, MD, MD
Howlett, Roberta - BA, MASc, PhD
Hwang, Stephen - MPH, MD
Hyman, Ilene - BSc, MHSc, PhD
Ibrahim, Selahadin - BSc, BScCE, MSc
Irlbacher-Fox, Stephanie - BA, MA, PhD
Jackson, Suzanne - BSc, MSc, PhD
Jacobson, Nora - PhD
Jaglal, Susan - BSc, MSc, PhD
Jha, Prabhat - DrMed, PhD
Jiang, Depeng - BSc, MSc, PhD
Jin, Yaping - PhD
Johnson, Ian Lindsay - BSc, MSc, MD
Kakuma, Ritz - BA, MSc, PhD
Katz, Stephen - DPhil
Keelan, Jennifer - PhD
Khenti, Akwatu - BA, MA
Kiefer, Lori - DrMed
Kirsh, Vicki - PhD
Kontos, Pia - MA, PhD
Kosny, Agnieszka - BA, MA, PhD
Kotsopoulos, Joanne - BSc, MSc, PhD
Krahn, Murray - BA, MSc, MD
Kudla, Irene - MHSc
Kustra, Rafal - PhD
Kwong, Jeff - BSc, MSc, MD
Leatherdale, Scott - MA, PhD
Lieff, Susan - MD
Lindsay, Sally - BA, MA, PhD
Liu, Geoffrey - MSc, MD
Longo, Christopher - BA, MSc, PhD
MacEachen, Ellen - BA, BA, MSc, PhD
Magee, William - PhD
Malik, Rebecca - MD
Manuel, Douglas - DrMed
Mason, Robin - BA, MEd, AM, PhD
McGeer, Allison - BSc, MSc, MD
Mcquillan, Robert - BASc, MASc
McVey, Gail - BA, MA, PhD
Meier, Rosemary - DPM, LMCC, MSc, MBChB
Moineddin, Rahim - BSc, MSc, MSc, PhD
Muzzin, Linda - BA, MA, MPSY, PhD
Nathanson, Cynthia - BA, MSW
Nixon, Stephanie - BHSC(P/T), BA, PhD
Norman, Cameron - BA, MA, PhD
Oandasan, Ivy - MHSc, MD
Ofner, Marianne - BScN, MHSc
O'Grady, Laura - PhD
Orbinski, James - MA, MD
Panzarella, Tony - BSc, MSc
Pasut, George - MHSc, MD
Paszat, Lawrence - MS, MD
Paterson, Andrew - MBChB
Pimlott, Nicholas - BSc, MD, PhD
Polzer, Jessica - BA, MSc, PhD
Pron, Gaylene - BSc, MSc, PhD
Quinonez, Carlos R. - MS, DMD
Rachlis, Michael - MSc, MD
Ratnapalan, Savithiri - MEd, MBBS
Rea, Elizabeth - MSc, MD
Rhodes, Anne - PhD

Richardson, Denyse - MEd, MD
Rosella, Laura - BSc, MHSc, PhD
Ross, Lori - PhD
Rouleau, Katherine - BSc, MHSc, MDCM
Scott, Helen - BA, BSc, MSc, PhD
Scott, Jeremy - PhD
Seary, Andrew - BSc, PhD
Selby, Peter - MHSc, MBBS
Shain, Martin - DIPCRIM, BA, MA, SJD
Sibbald, R. Gary - MD
Smith, Lesbia - BS, MD
Smith, Peter - BASc, MPH, PhD
Stephens, Derek - BSc, BA, MSc
Sullivan, Terrence - BS, MA, PhD
Sutradhar, Rinku - BSc, MMath, PhD
Taback, Nathan - BSc, MSc, PhD
Talbot, Yves - BA, MD
Thompson, Alison - BA, MA, PhD
Thorsteinsdottir, Halla - PhD
Tolusso, David - BSc, MSc, PhD
Tremblay, Paul - BA, MA, PhD
Upshur, Ross Edward - BSc, BA, MA, MD
Warner, Jessica - BA, PhD
Watson, William - BA, MSc, MDCM
Willison, Don - BSc, MSc, ScD
Windrim, Patricia - LMCC, MBChB
Xu, Wei - MSc, PhD
Yu, Catherine - MD
Yuan, Lilian - MSc, MD, DHA
Zack, Martin - PhD

Public Policy and Governance

Faculty Affiliation
Arts and Science

Degree Programs Offered
Public Policy - MPP

Overview
The School of Public Policy and Governance is a professional school offering a two-year **Master of Public Policy** degree. The program degree is highly interdisciplinary and bridges the spheres of domestic policy and international or global policy, providing comprehensive coverage of the broad sweep of complex issues facing modern governments and other policy-making organizations.

The MPP program features core instruction on a small-group, cohort-based model. In addition to the core material considered essential for policy practice, students take electives both within the school and in the broader university. 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

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,

- 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);
- 2.0 FCE 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.

Normal Program Length – 5 sessions over 2 years (20 months) full-time

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 I
PPG 2002H   Integrating Seminars - Current Issues/ Problems in Public Policy and Practice II
PPG 2003H   Capstone Course: Integrating Issues in Public Policy
PPG 2011H   Ethics and the Public Interest
POL 2008H   Globalization, Internationalization, and Public Policy

Elective Courses offered by the School of Public Policy and Governance

PPG 2010H   Panel Data Methods for Public Policy Analysis
PPG 2013H   Topics in Public Policy: Priority Topics in Public Administration
PPG 2016H   Public Policy for Children

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, Graduate Chair, Fell Royal
  Society Canada
Carter, Michael - BM, MMath, PhD
Choudhry, Sujit - LLB, LLM
Coyte, Peter C - BA, MA, PhD
Flood, Colleen - LLB, LLM, SJD
Gunderson, Morley - BA, MA, PhD
Haddow, Rodney - BA, MSc, PhD
Hansen, Randall - BA, MPH, PhD, Canada Research
  Chair
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, Fell Royal Society Canada
Oreopoulos, Phllip - 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
Rittich, Kerry - BAMusic, LLB, SJD
Simeon, Richard - BA, MA, PhD, Fell Royal Society
  Canada
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, Canada Research Chair

Associate Members

Anand, Anita - BA, LLB, MA, LLM
Green, Andrew - LLB, BA, LLM, MA, PhD
Grootendorst, Paul - BA, MEC, PhD
Triadafilopoulos, Phil (Triadafilos) - BA, MA, PhD

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. **Global Health**
   - Rehabilitation Science, PhD
6. **Health Care, Technology and Place**
   - Rehabilitation Science, MSc, PhD
7. **Health Services and Policy Research**
   - Rehabilitation Science, MSc, PhD
8. **Neuroscience**
   - Rehabilitation Science, MSc, PhD
9. **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. 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): See SGS General Regulations.
  o **UofT School of Continuing Studies Academic Preparation**: See SGS General Regulations.

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 enrolment 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.
- The part-time option is not available in the Practice Science field.

Normal Program Length – 6 sessions (full-time); 15 sessions (part-time)

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.
    ▪ 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): See SGS General Regulations.
  o **UofT School of Continuing Studies Academic Preparation**. See SGS General Regulations.

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:
  o   REH 3301H *Rehabilitation Leadership: Transforming Practice*
  o   REH 3302H *Determinants of Rehabilitation Practice*
  o   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:
  o   REH 1100H *Theory and Research in Rehabilitation Science*
  o   REH 1130H *Theory and Research in Occupational Science*, or REH 1140H *Theory and Research in Physical Therapy*
  o   REH 1120H *Research Methods for Rehabilitation Science*

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 2001Yº Rehabilitation Presentations and
            Proceedings (Credit/No Credit)
REH 3001Yº 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

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
Boschen, Kathryn Ann - BA, MA, PhD
Brooks, Dina - BSc(PT), MSc, PhD *(Coordinator of Graduate Studies)*
Carnahan, Heather - BPHE, MSc, PhD
Carswell, Anne - DIPOT, BSc(OT), MSc, PhD
Chau, Tom - PhD
Colantonio, Angela - BA, BSc(OT), MHSc, PhD
Cott, Cheryl - DIPP, BPT, MSc, PhD
Davis, Aileen - BSc(PT), MSc, PhD
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
Martino, Rosemary - BS, MA, DPH
McIlroy, William - BSc, PhD
Mihailidis, Alex - BASc, MASc, PhD
Mustard, Cameron - AB, ScD
Polatajko-Howell, Helene - PhD
Popovic, Milos - DipIng, 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, MHSc, PhD
Streiner, David - PhD
Stuss, Donald - BPhil, MA, PhD
Thomas, Scott - BSc, MSc, PhD
Verrier, Mary (Molly) - DIPOT, MHSc
Yoshida, Karen - BSc, BPHE, MSc, PhD
Young, Nancy - BSc(PT), MSc

Members Emeriti
Friedland, Judith - BA, MA, PhD

Associate Members
Beaton, Dorcas - BSc(OT), MSc, PhD
Biddiss, Elaine Alisa - MASc, PhD
Cameron, Debra - BSc(OT), MEd, PhD
Cameron, Jill - BS, MS, PhD
Campbell, Kent - BSc, PhD
Cockburn, Lynn - BSc(OT), BCom, MEd, MPH
Comper, Paul - BA, MA, PhD
Dawson, Deirdre - BSc, MSc, PhD
Evans, Catherine - BSc, MSc, PhD

º Courses which may continue over a program. The course is credited when completed.

Gibson, Barbara - MSc, BMR(P/T), PhD
Goldstein, Roger - MBChB
Grace, Sherry - BA, MA, PhD
Graveline, Chantal - BSc, MSc
Hunter, Judith - BPT, MSc, PhD
Keightley, Michelle - BSc, MA, PhD
Koeberle, Paulo - BS, PhD
Landry, Michel - BSc(PT), MSc(PT), PhD
Lunsky, Yona - PhD
Mathur, Sunita - BSc(PT), MSc(PT), PhD
Mochizuki, George - PhD
Morshead, Cindi Marie - BS, PhD
Nixon, Stephanie - BHSC(P/T), BA, PhD
Nussbaum, Ethne - BSc, PhD
Rigby, Patty - DIPOT, MHSc
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. **Diaspora and Transnational Studies**
   - Religion, MA, PhD
4. **Editing Medieval Texts**
   - Religion, PhD
5. **Environmental Studies**
   - Religion, MA, PhD
6. **Ethnic and Pluralism Studies**
   - Religion, MA, PhD
7. **International Relations**
   - Religion, MA
8. **Jewish Studies**
   - Religion, MA, PhD
9. **Sexual Diversity Studies**
   - Religion, MA, PhD
10. **South Asian Studies**
    - Religion, MA, PhD
11. **Women and Gender Studies**
    - Religion, MA, PhD
12. **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. As a guideline for areas of strength in the Centre, we are organized by the following fields:

- Buddhist Studies
- Christianity
- Hinduism and South Asian Religions
- Islam
- Judaism
- Religion, Culture and Politics
- Religion, Ethics and Modern Thought
- Religion and Medicine
- Religions of Mediterranean Antiquity

These fields do not determine program requirements. Most faculty and students participate in multiple fields.

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 *MA Method and Theory Workshop*. In some cases, students may be required to take additional courses, some of which may be at the undergraduate level. Students may be required to take more than 4.0 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-.

- **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.

Normal Program Length – 3 sessions (full-time); 6-8 sessions (part-time)

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 must approve the completed thesis before it is submitted for examination.
- **Residence.** Students are required to spend at least two fall and winter sessions on campus in full-time study, normally those of the first two academic years of a program.

Normal Program Length – 4 years (some students may take longer)

Course List
Not all courses are offered every year. Please consult the Centre's Web site which lists the courses the Centre will offer this year as well as those cross-listed from other departments.

Religion
RLG 1000Y	Method and Theory in the Study of Religion
RLG 1200H	The MA Method and Theory Workshop
RLG 1501H	Directed Reading
RLG 1502H	Directed Reading
RLG 2000Y	Major Research Paper
RLG 2007H	Ethics, Society, and Technology
RLG 2011H	Natural Law in Judaism and Christianity I
RLG 2012H	Natural Law in Judaism and Christianity II
RLG 2016H	Radical Evil: Religious, Philosophical and Psychological Response
RLG 2025H	Religious Thought
RLG 2028H	Enemies of God: Religion and Violence in a (Post) Modern Time
RLG 2037H	Religion, Medicine and Healing
RLG 2060H	Religion and Philosophy in the European Enlightenment
RLG 2062H	Modern Hermeneutics and Religion
RLG 2065H	The Presuppositions of Interreligious Dialogue
RLG 2071H	Religion and Philosophy
RLG 2080H	Origins, Evolution and the Psychology of Religious Experience
RLG 2085H	Genealogies of Christianity
RLG 2088H	The Birth of Anthropology and the study of Primitive Religion
RLG 2089H	The Study of Non-Literate Religions in Nineteenth- and Early Twentieth-Century France
RLG 2090H	Topics in Psychology of Religion
RLG 3143H	Hebraica
RLG 3144H	Isaiah and Prophecy in the Early Judaism and Christianity
RLG 3150H	Reconceiving the Revelatory in Jewish Antiquity
RLG 3201H	Topics in Christian Origins I
RLG 3210H	Mani and the Kingdom of Light – Exploring an Alternate Christianity
RLG 3228H	Social History of the Early Jesus Movement
RLG 3230H	Comparative Theology Seminar

RLG 3232H   Sacred Space in the Christian Tradition
RLG 3235H   Liberation Theology: Examining the Work of Gustavo Guitiérrez 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 3243H   The Synoptic Problem
RLG 3248H   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 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 3415H   Theravada Practice
RLG 3446H   Causation, Movement and Time in Buddhist Scholastic Debate
RLG 3448H   History of Sanskrit Buddhist Tantric Literature
RLG 3450H   Buddhism and Science
RLG 3454H   Readings in Tibetan Buddhism I
RLG 3455H   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 3480H   Religion and Magic in Asia
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   Ismaili 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 3615H   Post-Holocaust Jewish Thought
RLG 3621H   Modern Jewish Thought
RLG 3622H   Maimonides and His Modern Interpreters
RLG 3634H   Worship and Scripture at Qumran
RLG 3645H   The Jewish Legal Tradition
RLG 3647H   Early Rabbinic Judaism
RLG 3651H   Hellenistic-Jewish Thought
RLG 3653H   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 3715H   Readings in Hindu Tantra
RLG 3721H   Ramayana in Literature, Theology and Political Imagination
RLG 3744H   Hindu Epics
RLG 3745H   Hindu Myths and Mythology

RLG 3750H   Topics in South Asian Religions
RLG 3760H   Vedanta Through the Ages
RLG 3762H   Religion and Aesthetics in South Asia
RLG 3764H   Readings in Sanskrit Philosophy
RLG 3931H   Topics in North American Religions
RLG 4001H   Directed Reading: TST Seminar
RLG 4004H   Colloquium Presentation

Joint Courses

JAR 6510H   From Theory to Ethnography: Anthropological Approaches to Religion
JPR 2057H   Democracy and the Secular

Other Departments

Other departments and collaborative programs (see programs listed at the beginning of this entry) 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

Graduate Faculty

Full Members

Abray, L Jane - BA, MA, MPH, PhD
Ahn, Juhn - BA, MA, PhD
Airhart, Phyllis - BA, MA, PhD
Argarate, Pablo - STB, DPhil, DTH
Bergen, Doris - MA, PhD
Boddy, Janice - BA, MA, PhD
Bryant, Joseph - MA, PhD
Cobb, Michael - BA, MA, AM, PhD
Cochelin, Isabelle - DipdESup, BA, 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
Emmrich, Christoph - PhD
Emon, Anver - LLB, BA, LLM, MA, PhD, SJD
Everett, Nicholas - BA, MA, PhD
Fadel, Mohammad - BA, JD, PhD
Fox, Harry - BSc, BA, MS, MA, PhD

Franks, Paul - AB, MA, PhD
Garrett, Frances - BA, MA, PhD
Gibbs, Robert - BA, MA, PhD
Gillison, Gillian - BA, PhD
Goering, Joseph - BA, MA, MSL, PhD
Goetschel, Willi - PhD
Gooch, Paul William - BA, MA, PhD
Green, Kenneth - BA, MA, PhD
Hackworth, Jason - BA, MA, MCP, PhD
Harrak, Amir - MA, LTH, PhD
Harris, Jennifer - BA, MA, PhD
Hewitt, Marsha - BA, MA, PhD *(Director of Graduate Studies)*
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
Locklin, Reid - AB, MTH, PhD
Magee, John - BA, MA, PhD
Marshall, John - BA, MA, PhD
McGowan, Mark - BA, MA, PhD
Metso, Sarianna - MA, PhD
Meyerson, Mark - BA, PhD
Mills, Kenneth - MA, PhD
Mittermaier, Amira - MA, PhD
Most, Andrea - BA, MA, PhD
Mullin, Amy - BA, PhD
Najman, Hindy - AB, MA, PhD
Newman, Judith - PhD
Northrup, Linda - BA, MA, PhD
Novak, David - AB, PhD
Ross, Jill - MA, PhD
Saleh, Walid - BA, MA, PhD
Sandahl, Stella - MA, MA, PhD
Scharper, Stephen - BA, 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
Toulouse, Mark - MDiv, PhD
Vaage, Leif - BA, PhD
Virani, Shafique - PhD
Wiebe, Donald - BTH, BA, MA, 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
Bendlin, Andreas - PhD
Daswani, Girish - BA, BSc, MS, PhD
Dixon, David - BSc, MA, MD
Fehige, Yiftach - MA, PhD, DTH
Marshall, Ruth - BA, MA, DPhil
O'Neill, Kevin - PhD
Purtle, Jennifer - BLitt
Raffaelli, Enrico - PhD
Raman, Srilata - BA, MPH, PhD
Rao, Ajay - 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:
  - 4.0 full course equivalents (FCE) including SLA1104H and SLA1040H, OR
  - 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.

Normal Program Length – 2 sessions (full-time)

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.

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.

Normal Program Length – 4 years (many students require five years to complete the program).

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 (man-
             datory 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 1412Y   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-Kijow: 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
Barnes, Christopher - BA, MA, PhD
Holland, Kate - MA, PhD
Koznarsky, Taras - MA, PhD
Kramer, Christina - BA, MA, PhD *(Chair & Graduate Chair)*
Livak, Leonid - BA, AM, PhD
Mikhailova, Julia - AB, AM, AM, DPhil
Obradovic, Dragana - MA, PhD
Orwin, Donna - PhD
Paivio, Pia-Maria - MA, PhD
Schallert, Joseph - PhD
Tarnawsky, Maxim - BA, PhD *(Coordinator of Graduate Studies)*
Trojanowska, Tamara - MA, PhD

Members Emeriti
Bedford, Charles - MA, PhD
Bisztray, George - PhD
Bogert, Ralph - BA, MA, PhD
Dolezel, Lubomir - BA, PhD, Fell Royal Society Canada
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

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, 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 95 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 (MSW)
2. Gerontology (MSW)
3. Health and Mental Health (MSW)
4. Social Justice and Diversity (MSW)
5. Social Service Administration (MSW)

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. The program offers two fields:
1. Social Work Policy Analysis (PhD)
2. Social Work Practice, Theory and Resarch (PhD)

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 1V4
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 BSW 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 three years experience in social services.
- All applicants must 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) in the social services or related field, and knowledge of critical social issues are recommended. Suitability for professional practice in social work will also be considered.
- Proof of English language facility (see SGS General Regulations).
- Advanced Standing applicants must also indicate a field of specialization and a preference for full-time or part-time studies.

Initial admission enquiries should be made directly to the Faculty of Social Work. Please note that applicants holding the minimum admission requirements are not guaranteed admission. All admission decisions are final.

MSW Two-Year Full-Time Program and MSW Program with Advanced Standing

Program Requirements
- Year One of the Two-Year Full-time MSW Program – all students

Compulsory courses
First-year MSW students must complete 8 half courses (4.0 FCE) and the first-year practicum (0.5 FCE) from the list of required courses below:

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 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)

- **MSW Two-Year Program students** must declare their field of specialization by mid-February of the first year.
- See below for information by field of specialization.

- Completion of all degree requirements within four years.

Note: Advanced-Standing students normally complete the program in one year of full-time study or two years of part-time study.

Note: The Thesis Option may be available to a maximum of three students in any given year.

- 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 (maximum three) 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 require at least one additional academic session to complete the program.

Fields:
1. **Children and Their Families**
   The program is designed to prepare students for social work practice with children and their families at all levels of intervention, from individual to group work with children, to family and couple intervention, to community organization, and to program and policy development.

MSW Two-Year Program
- Students must complete a total of 8.5 FCE including core MSW course work (4.0 FCE), required field-specialization course work (2.0 FCE), elective course work (1.0 FCE), and practica (1.5 FCE). The practicum (0.5 FCE) is required for students in the first year and is offered in the winter session; the second-year practicum (September-April) is equivalent to 1.0 FCE and must be in the student's field of specialization.
- Thesis: Students complete a total of 9.0 FCE, including core MSW course work (4.0 FCE), required field-specialization 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).

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

MSW Program with Advanced Standing
- Students 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) in their field of specialization.
- Thesis: Students complete a total of 5.0 FCE including required course work (2.5 FCE), a practicum (1.0 FCE), a research methods course (0.5 FCE chosen from SWK6307 or SWK6308H) and a thesis (1.0 FCE).

Year Two – Compulsory Courses
Two-Year MSW Full-Time Program and MSW Program with Advanced Standing
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)

MSW Program with Advanced Standing complete above courses plus compulsory course:
SWK 4510H *Research for Evidence-Based Social Work Practice* (SWK 4510H is a prerequisite for required second-year courses)

2. **Social Justice and Diversity**
    Reducing inequalities and marginalization is in line with professional social work's agenda of anti-oppression and social justice. Social work is committed to working with and on behalf of people from disenfranchised backgrounds.

MSW Two-Year Program
- Students must complete a total of 8.5 FCE including core MSW course work (4.0 FCE), required field-specialization course work (2.0 FCE), elective course work (1.0 FCE), and practica (1.5 FCE). The practicum (0.5 FCE) is required for students in the first year and is offered in the winter session; the second year practicum (September-April) is equivalent to 1.0 FCE and must be in the student's field of specialization.
- Thesis: Students complete a total of 9.0 FCE, including core MSW course work (4.0 FCE), required field-specialization 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).

MSW with Advanced Standing Program
- Students in the MSW with Advanced Standing Program 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) in their field of specialization.
- Thesis: Students complete a total of 5.0 FCE including required course work (2.5 FCE), a practicum (1.0 FCE), a research methods course (0.5 FCE chosen from SWK 6307 or SWK 6308H) and a thesis (1.0 FCE).

Year Two – Compulsory Courses
Two-Year MSW Full-Time Program and MSW Program with Advanced Standing
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)

MSW Program with Advanced Standing complete above courses plus compulsory course:
SWK 4510H   Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for required second-year courses)

3. **Health and Mental Health**
    As members of inter-professional health teams, social workers seek to assist others in understanding the social and community context in which physical and mental illness occur and the way in which these larger systems contribute to the development of illness and exacerbate or ameliorate the challenges in adapting to illness.

MSW Two-Year Program
- Students in the MSW Two-Year Program must complete a total of 8.5 FCE including core MSW course work (4.0 FCE), required field-specialization course work (2.0 FCE), elective course work (1.0 FCE), and practica (1.5 FCE). The practicum (0.5 FCE) is required for students in the first year and is offered in the winter session ; the second year practicum (September-April) is equivalent to 1.0 FCE and must be in the student's field of specialization.
- Thesis: Students in the MSW Two-Year Program 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).

MSW with Advanced Standing Program
- Students in the MSW with Advanced Standing Program 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) in their field of specialization.

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

- Thesis: Students in the MSW Program with Advanced Standing complete a total of 5.0 FCE including required course work (2.5 FCE), a practicum (1.0 FCE), a research methods course (0.5 FCE chosen from SWK 6307 or SWK 6308H) and a thesis (1.0 FCE).

Year Two – Compulsory Courses
Two-Year MSW Full-Time Program and MSW Program with Advanced Standing

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)* and 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 SWK4631H (*Advanced Social Work Practice in Mental Health* (Prerequisite: SWK 4604H))

MSW Program with Advanced Standing complete above courses plus compulsory course:
- SWK 4510H *Research for Evidence-Based Social Work Practice* (SWK 4510H is a prerequisite for required second-year courses)

4. Social Service Administration
The not-for-profit sector is primarily responsible for the delivery of social services in Canada. There is a critical need for people who are able to assume leadership roles in the community social services sector.

MSW Two-Year Program
- Students in the MSW Two-Year Program must complete a total of 8.5 FCE including core MSW course work (4.0 FCE), required field-specialization course work (2.0 FCE), elective course work (1.0 FCE), and practica (1.5 FCE). The practicum (0.5 FCE) is required for students in the first year of the MSW Two-Year Program and is offered in the winter session; the second year practicum (September-April) is equivalent to 1.0 FCE and must be in the student's field of specialization.
- Students in the Social Service Administration specialization do not have the option of doing a thesis.

MSW with Advanced Standing Program
- Students in the MSW with Advanced Standing Program 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) in their field of specialization.

Year Two – Compulsory Courses
Two-Year MSW Full-Time Program and MSW Program with Advanced Standing

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)

MSW Program with Advanced Standing complete above courses plus compulsory courses:
SWK 4102H Social Policy and Social Welfare in the Canadian Context
SWK 4510H Research for Evidence-Based Social Work Practice (SWK 4510H is a prerequisite for required second-year courses)

5. Gerontology
Social Workers provide a wide variety of services and programs both in the community and in institutions that are aimed at enhancing the quality of life of older people and assisting families to adjust to the aging of their family member. Social workers also play a vital role in the development and implementation of social and economic policies at the provincial and national levels through research on aging, consultation with government and through social advocacy.

- All students enrolled in the Social Work in Gerontology field of specialization will automatically be enrolled in the Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course.

MSW Two-Year Program
- Students in the MSW Two-Year Program must complete a total of 9.0 FCE, including core MSW course work (4.0 FCE), required field of specialization course work (2.5 FCE), elective course work (1.0 FCE), and practica (1.5 FCE) in the student's field of specialization.
- Thesis: Students in the Two-Year MSW Program complete a total of 9.0 FCE, including core MSW course work (4.0 FCE), required field-specialization 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).

MSW with Advanced Standing Program
- Students in the MSW with Advanced Standing Program 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).

- Thesis: Students in the MSW Program with Advanced Standing complete a total of 5.0 FCE including required course work (3.0 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), and a thesis (1.0 FCE).

Year Two – Compulsory Courses
Two-Year MSW Full-Time Program and MSW Program with Advanced Standing
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)

MSW Program with Advanced Standing complete above courses plus compulsory course: SWK 4510H *Research for Evidence-Based Social Work Practice* (SWK 4510H is a prerequisite for required second year courses)

Normal Program Length – 6 sessions (2 years) (full-time); 3 sessions advanced standing (full- time); 6 sessions advanced standing (part-time)

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 4420H   Human Rights and Social Justice
SWK 4422H   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.
- For minimum period of registration and time limit please refer to the individual entries for the two degrees)

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 indicates 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 course work totalling 5.0 FCE, generally within two years of registration, as follows:
  - o 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: SWK 4506H (0.5 FCE) is a prerequisite for SWK 6301H or an equivalent competency exam must be passed by all incoming students with a grade of a least B+.
  - o 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).
  - o 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.

- Minimum Period of Registration is 12 academic sessions of full-time enrolment (fall, winter, summer sessions)
- Completion of all degree requirements within 6 years (full-time PhD from first registration in the program; 8 years (flexible-time PhD).

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 practising 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 fulfil the academic requirements of a PhD program.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

Course List

Compulsory courses

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 7000H Doctoral Thesis Seminar (Credit/No Credit)

Recommended course

SWK 4506H Applied Quantitative Data Analysis (prerequisite for SWK6301H or pass a competency exam

Elective courses

The choice of electives in any given year is contingent on available faculty resources. Not every course is available in any one year. Please consult the Faculty Web site www.socialwork.utoronto.ca.

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 6401H   Sociocultural Issues in Social Work
SWK 6406H   Housing Theory and Research Methods

These courses are designed to provide seminars or tutorials according to the particular interests of students enrolled:

SWK 6501H   Special Studies 1
SWK 6502H   Special Studies 2
SWK 6503H   Special Studies 3
SWK 6504H   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 active in the work force.

Admission Requirements

*   Applicants follow admission requirements stipulated by the School of Graduate Studies at the University and by the Factor-Inwentash Faculty of Social Work. Applicants must have a MSW or master's degree in a related social service field and have at least three years of 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

Compulsory courses
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

Elective courses
1.0 elective FCE given in conjunction with the MSW 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
Bogo, Marion - BA, MSW
Chambon, Adrienne - BA, PhD *(Director, PhD Program)*
Fuller-Thomson, Esme - BA, MSW, PhD
Globerman, Judith - BSW, MHSc, MSc, PhD
Hulchanski, J David - BA, MSc, PhD
Lightman, Ernie - BA, MA, PhD
MacFadden, Robert - BA, MSW, PhD
McDonald, Lynn - PhD
Mishna, Faye - BA, PhD
Newman, Peter - BA, MA, MSW, PhD
Neysmith, Sheila - BSc, MSW, DSW
Regehr, Cheryl - AB, MA, PhD (Dean)
Shera, Wes - BA, MA, PhD
Shlonsky, Aron - BA, MPH, MSW, DPhil
Stern, Susan - DSW
Trocme, Nicolas - PhD
Tsang, Ka Tat - BSc, PhD
Williams, Charmaine - BA, BSc, MSW, PhD *(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, Associate In Commerce
Schlesinger, Benjamin - BA, MSW, PhD
Shapiro, Ben - BA, BSW, MSW, DSW
Wells, Lilian - BA, BSW, BA, MSW

Associate Members
Anucha, Uzo - BSW, MSW, PhD
Bhuyan, Rupaleem - BA, MA, PhD
Blakely, Christine (Cindy) - BA, MSW
Brennan, David - BA, MSW, PhD
Chakrapani, Venkatesan - MD, MBBS
Coady, Nicholas - BA, MSW, PhD
Craig, Shelley - BS, MSW, PhD
Dimitropoulos, Gina - BA, MSW, PhD
Donahue, Peter - BSc, BA, DSW
Evans, Patricia - BSW, MSW, PhD
Fallon, Barbara - BA, MSW, PhD
Fang, Lin - BA, MSW, PhD
Faucher, Sheila - BA, MSc, PhD
Fleischer, Les - BA, MSW, DSW
Flicker, Sarah - BA, MPH, PhD
Flynn, Robert - BA, BTH, MA, PhD
Frolic, B. Michael - BA
Gadalla, Tahany - BASc, MS, MMath, EdD
Gold, Nora - BSW, MSW, DSW
Herie, Marilyn - BA, MSW, DSW
Ickowicz, Abel - MD
Jeffries, Joel - MA, MB

Langley, John - LMCC, MD
Lee, Eunjung - BSW, MSW, PhD
Levine, Deborah - BA, MA, MSW, PhD
Litvack, Andrea - BSW, MSW
MacMillan, Harriet - MSc, MD
Maiter, Sarah - BSW, MSc, DPhil
Mckenzie, Kwame - MD
McNeill, Ted - BA, MSc, DPhil
Mensah, Joseph - BA, MA, PhD
Moscovitch, Allan - BA, MA
Murdie, Robert - BA, MA, PhD
Myers, Ted - BA, MSW, MSc, PhD
Noack, Andrea - BA, MA, PhD
Pedersen, Ducan - MD
Pepler, Debra - BA, BEd, MSc
Power, Roxanne - BA, BSW, MSW
Ravitz, Paula - DPsych, BA, MD
Saini, Michael - BSW, BA, BA, MSW, PhD
Sakamoto, Izumi - DSW
Sinding, Christina - BA, MA, PhD
Skinner, Wayne - MSW
Stewart, Malcolm - DSW
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. **Diaspora and Transnational Studies**
   - Sociology, MA, PhD
5. **Environmental Studies**
   - Sociology, MA, PhD
6. **Ethnic and Pluralism Studies**
   - Sociology, MA, PhD
7. **International Relations**
   - Sociology, MA
8. **Jewish Studies**
   - Sociology, MA, PhD
9. **Knowledge Media Design**
   - Sociology, MA, PhD
10. **Sexual Diversity Studies**
   - Sociology, MA, PhD
11. **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.
  - 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:
  - 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.

Normal Program Length – 3 sessions (full-time); 15 sessions (part-time)

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
  - 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.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry)

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

Sociology of Culture
SOC 6516H   Sociology of Culture
SOC 6517H   Sociology of Culture II

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

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, LLD
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 - BA, MA, PhD
Hannigan, John - BA, MA, 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
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 *(Associate Chair, Graduate Studies)*
Berry, Brent - BS, PhD
Cranford, Cynthia - MA, PhD
Dinovitzer, Ronit - BA, MA, PhD
Farah Schwartzman, Luisa - PhD
Hermer, Joseph - PhD
Johnston, Josee - AB, MA, PhD
Korteweg, Anna - BA, MA, PhD
Leschziner, Vanina - BA, BA, AM, DPhil
Levi, Ron - BCL, LLB, LLM, SJD
Lexchin, Joel - BSc, MSc, MD
Liddle, Kathleen - BA, AM, PhD
Marin, Alexandra - BA, MA, PhD
Maurutto, Paula - DPhil
Moore, Gale - BLS, BSc, AMLS, PhD
Mullen, Ann Louise - BA, MA, PhD
Peng, Ito - BSW, BSc, MA, PhD
Schieman, Scott - BA, MA
Schneiderhan, Erik - PhD
Silver, Daniel - BA, MA, PhD
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. **Diaspora and Transnational Studies**
   - Sociology in Education, MA, MEd, EdD, PhD
4. **Environmental Studies**
   - Sociology in Education, MA, MEd, EdD, PhD
5. **Ethnic and Pluralism Studies**
   - Sociology in Education, MA, MEd, EdD, PhD
6. **Sexual Diversity Studies**
   - Sociology in Education, MA, MEd, EdD, PhD
7. **South Asian Studies**
   - Sociology in Education, MA, MEd, EdD, PhD
8. **Women and Gender Studies**
   - Sociology in Education, MA, MEd, EdD, PhD
9. **Workplace Learning and Social Change**
   - 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

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.
  - 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 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.

Normal Program Length – 4 sessions over 2 years (full-time); 5 sessions (part-time)

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.
- 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 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.

Normal Program Length – 5 sessions (full-time); 6 sessions (part-time), Option II & III; 8 sessions (part-time), Option IV.

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 1909H   Environmental Sustainability and Social Justice 1
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 2
SES 1921Y   The Principles of Anti-Racism Education
SES 1922H   Sociology of Race and Ethnicity
SES 1923H   Racism, Violence, and the Law: Issues for Researchers and Educators
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 1929H   Theorizing Asian Canada
SES 1930H   Race, Indigenous Citizenship. and Self-Determination: Decolonizing Perspectives
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 1989H   Black Feminist Thought
SES 1992H   Feminism and Poststructuralism in
Education
SES 2910H   Changes in Families and Policy
Consequences for Government and
Education
SES 2940H   Rethinking Marxism and Education
SES 2941H   Social Inequities and Education:
Theoretical Implications
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
WPL 3931H   Workplace Learning and Social Change
– Doctoral

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.

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.
  - 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 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.

Normal Program Length – 4 years (full-time EdD); 6 years (part-time EdD)

Doctor of Philosophy

The PhD degree program is designed to provide opportunities for advanced study, original research, and theoretical analysis.

Minimum Admission Requirements

Full-time PhD
- 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.
  - 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 Graduate Bulletin* for further information.

Flexible-time PhD
- 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 should demonstrate that they are active professionals engaged in activities relevant to their proposed program of study. See the OISE Bulletin for more 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. 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.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

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: Intersectionalities: Theory, Method, Praxis
SES 3914H	Anti-Colonial Thought and Pedagogical Challenges
SES 3915H	Franz Fanon and Education
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	Globalisation and Transnationality: Feminist Perspectives
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 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
Coloma, Roland Sintos - TD, BA, MA, MA, PhD
Dehli, Kari - BA, MA, PhD
Dei, George JS - BA, MA, PhD
Eichler, Margrit - MA, PhD, LLD
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 *(Chair & Graduate Chair)*
Wane, Njoki - BE, MSc, MEd, PhD
Wiebe, Donald - BTH, BA, MA, PhD

Members Emeriti
Pierson, Ruth - BA, MA, PhD

Associate Members
Aronson, Jane - BSc, MSW, PhD
Cannon, Martin - MA, PhD
Hsiung, Ping-Chun - PhD
Larkin, June - PhD
Nestel, Sheryl - PhD
Ng, Roxana - BA, MA, PhD
Thomas, Roslyn - BA, MA, PhD
Waldron, Ingrid - PhD

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. **Diaspora and Transnational Studies**
   - Spanish, MA, PhD
2. **Editing Medieval Texts**
   - Spanish, PhD
3. **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.

Contact and Address
Web: www.spanport.utoronto.ca
E-mail: spanport@chass.utoronto.ca
        or Spanish.graduate@utoronto.ca
Telephone: (416) 813-4080 or 416-813-4082
Fax: (416) 813-4084

Department of Spanish
University of Toronto
Victoria College
Room 208, 91 Charles Street West
Toronto, Ontario M5S 1K7
Canada

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 at www.spanport.utoronto.ca/DOCUMENTS/TA-Application.pdf).
  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.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

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 at www.spanport.utoronto. ca/DOCUMENTS/TA-Application.pdf.
  - 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 stu-

dent'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 enrolment 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 enrolment and retake the oral examination on the proposal by October 15 of that year.
- **Language requirements** must be fulfilled before registering for Year 4. Each student must demonstrate a reading knowledge of French and of a third non-English language relevant to 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 fulfil the **residence requirement** by being registered as full-time on-campus and must reside in sufficient geographical proximity to enable them to fulfil the requirements of the program in a timely fashion. They are also expected to participate fully in

departmental activities. While writing the dissertation, candidates are expected to be in residence, with the exception of absences for research purposes and approved leaves.

- The program must be completed within six years of the student's initial enrolment.

Normal Program Length – 4 years

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
COL 5032H Feminist Approaches to Medieval Literature
COL 5064H Medieval Literary Theory
COL 5065H The Forms of Literature in the Age of Electricity
COL 5072H Affinities: Readings of Realism and Radicalism
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 Directed Research in Hispanic Linguistics
SPA 2018H Poetics of Early Drama
SPA 2021H The Politics of Print

SPA 2022H Books and Borders
SPA 2031H Writing that Conquers: Early Colonial Historiography
SPA 2121H Psychoanalysis and the Passions in Early Modern Literature
SPA 2150H Defining Journeys in the Spanish Empire
SPA 2171H Politics and Aesthetics of Early Modern Verse

SPA 2187H Comedy and the Comedia in Early Modern Spain
SPA 2189H Lope and Calderón
SPA 2284H Narrative and Political Transition in Contemporary Spain
SPA 2291H The Urban Experience in Spain
SPA 2305H Auteurism in Spanish Cinema
SPA 2352H Modern Spanish Drama and its Traditions
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 2850H Nineteenth-Century Latin American Literature
SPA 2900H Issues in Literary Theory and Hispanic Texts
SPA 2905H Latin American Cultural Theories
SPA 3000H,Y Directed Research in Hispanic Literatures

Graduate Faculty

Full Members
Blackmore, Josiah - PhD *(Chair and Graduate Chair)*
Colantoni, Laura - MA, PhD
Cuervo, Maria Cristina - PhD
Davidson, Robert - BA, AM, PhD
Jagoe, Eva-Lynn - BA, MA, PhD
Munjic, Sanda - BA, AM, PhD
Perez-Leroux, Ana Teresa - MA, PhD
Rodriguez, Nestor - BA, PhD
Rupp, Stephen - BA, MA, MPH, MA, PhD
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
Antebi, Susan - AM, PhD
Fernandez Pelaez, Iban - PhD
Iglesias, Yolanda - BA, BA, MA, 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)
  - 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:
  - Michigan English Language Assessment Battery (MELAB) with a minimum score of 85
  - 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 five academic and four 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 two-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).

Normal Program Length – 6 sessions (full-time); 12, 15 or 18 sessions (4-year, 5-year or 6-year part-time MHSc options)

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[o]	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[o]	Clinical Laboratory in Hearing Disorders: Aural Rehabilitation or Audiology Component (Credit/No Credit)

[o] 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.

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 1527H[+]	Physical Analysis of Speech Disorders
SLP 1528H[+]	Research in Speech-Language Pathology
SLP 1533Y	Aphasia
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.

Normal Program Length – 6 sessions (full-time)

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, reference letters, 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 first phase, the student completes a departmental comprehensive examination that includes a full research proposal and a conceptual paper on a topic chosen by the student and the supervisory committee. The second phase of the program is devoted almost exclusively to the completion of the thesis research project. 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.
- Students complete a residency requirement during the first two years of the program.

Normal Program Length – 4 years (full-time PhD)

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, MHSc, PhD
Stewart, Patricia - BSc, MSc, PhD
van Lieshout, Pascal - MA, MA, PhD

Associate Members
Bradley, Kimberley - BA, MHSc, PhD
Deluzio, Joanne - BSc, MCLSC, PhD
Ellwood, Lynn - BSc(CD), MA
Irish, Jonathan - MSc, MD
Jokel, Regina - MHSc, PhD
Kagan, Aura - BAA, BA, MA, PhD
Kroll, Robert - BSc, MSc, PhD
Leonard, Carol - BA, MASc, PhD
Matsuo, Patty - MA
Parnes, Pauline - BSc

° Courses which may continue over a program. The course is graded when completed.

Roberts, Sheila - BSc, MD
Wagner, Susan - BSc, MSc
Weitzman, Elaine - BA, MEd
Yunusova, Yana - MS, MA, PhD

Statistics

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 areas of (a) Statistical Theory and Applications, (b) Probability, and (c) Actuarial Science/Mathematical Finance, leading to the **Master of Science** and the **Doctor of Philosophy** degrees. Starting with the Academic Year 2011/2012 and pending approval from the Ontario Council on Graduate Studies, the Department of Statistics will also offer a Doctor of Philosophy degree in the field of Actuarial Science and Mathematical Finance. Please visit the Department of Statistics' Web site www.utstat.utoronto.ca for further details about the program and admission requirements. 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 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

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 on the Department's Web site.

Program Requirements
All programs must be approved by the Associate Chair for Graduate Studies.

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.

Part-Time Program
Students must satisfy the program requirements outlined for the full-time MSc.

Normal Program Length – 3 sessions (full-time); 6 sessions (part-time)

Doctor of Philosophy

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 2101H, STA 2111H, STA 2201H, 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 available on the department's Web site.

Direct-Entry Program

Students admitted to the direct-entry program must normally adhere to the following:

- Complete STA 2101H, STA 2111H, STA 2201H, STA 2211H, STA 3000Y plus 2.0 FCE.
- 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.
- Satisfy a two-year residency requirement.
- Further details are found in the Graduate Information available on the department's Web site.

Normal Program Length – 4 years (full-time PhD); 5 years (direct-entry PhD)

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 2100H	Mathematical Methods for Statistics
STA 2101H	Methods of Applied Statistics I
STA 2102H	Computational Techniques in Statistics
STA 2103H	An Introduction to Bayesian Inference
STA 2104H	Statistical Methods for Machine Learning and Data Mining
STA 2105H	Nonparametric Methods of 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 3000Y	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	Stat Theory-Quality Control
STA 3103H	Bayesian/Likelihood Asymptotics
STA 3431H	Monte Carlo Methods
STA 4000H	Supervised Reading Project I
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

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, DPhil

Members Emeriti

Andrews, David - BSc, MSc, PhD
Fraser, Donald AS - BA, MA, PhD, Fell Royal Society Canada
Guttman, Irwin - BSc, MA, PhD
Srivastava, Muni - MSc, PhD

Associate Members

Gibbs, Alison - BS, MS, PhD
Willmot, Gordon - BMath, MMath, PhD
Zhou, Zhou - MSc, DPhil

Theoretical Astrophysics

Faculty Affiliation
Arts and Science

Degree Programs Offered
The Canadian Institute for Theoretical Astrophysics (CITA) does not offer an independent graduate degree program. Students interested in theoretical astrophysics are encouraged to enrol in the graduate programs offered by cognate departments such as Astronomy and Astrophysics, Chemistry, and Physics.

All CITA faculty hold cross-appointments in one or more of these departments; students seeking research supervision by CITA faculty are welcome to 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 of Canada (NSERC), and the Canadian Institute for Advanced Research (CIFAR).

CITA owns an extensive and powerful network of workstations, including a 200-node, 1600-core Beowulf computing cluster. CITA also uses the 30,000 core computing cluster housed at the SciNet consortium at the University of Toronto.

The research activities at CITA span most of the areas of modern theoretical astrophysics, including accretion disks, active galactic nuclei, general relativity, and gravitational waves, cosmology and cosmological aspects of particle physics, the cosmic microwave background, gravitational lenses, dark matter, galaxy formation, galaxy structure and evolution, dynamics of stellar systems, physics and chemistry of the interstellar medium, star formation, stellar evolution, novae, supernovae, compact objects and gamma-ray bursts, nucleosynthesis, solar system formation and dynamics, and comets.

CITA has the support of over 50 faculty members from about 20 Canadian universities. CITA also maintains a rotating complement of more than 30 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.

Contact and Address
Telephone: (416) 978-6879
Fax: (416) 978-3921
E-mail: office@cita.utoronto.ca
Web: www.cita.utoronto.ca

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, Fell Royal Society Canada, Fell Royal Society London
Martin, Peter - BSc, MSc, PhD
Murray, Norman - BSc, PhD *(Director)*
Pen, Ue-Li - BSc, PhD
Thompson, Christopher - BSc, PhD

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

Collaborative Programs

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

1. **Educational Policy Program**
   - Educational Administration, MA, MEd, EdD, PhD
   - Higher Education, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd
2. **Comparative, International and Development Education**
   - Educational Administration, MA, MEd, EdD, PhD
   - Higher Education, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd
3. **Ethnic and Pluralism Studies**
   - Educational Administration, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd
4. **Sexual Diversity Studies**
   - Educational Administration, MA, MEd, EdD, PhD
   - Higher Education, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd
5. **Women and Gender Studies**
   - Educational Administration, MA, MEd, EdD, PhD
   - Higher Education, MA, MEd, EdD, PhD
   - History and Philosophy of Education, MA, MEd

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 Registrar's Office by emailing gradstudy@oise.utoronto.ca.

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: tpse@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.

Normal Program Length – 5 sessions over 2 years (full-time); 12 sessions (part-time)

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.
  - A Major Research Paper (MRP) to be carried out under the guidance of a faculty member.
- **Option III** 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.
- **Option IV** comprises:
  - 2.0 required FCE: TPS 1004H Research Literacy 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 1050H Themes and Issues in Policy, Leadership, Change, and Diversity. TPS 1004H, TPS 1040H, and TPS 1041H should preferably be the first courses taken in the student's program of study. TPS 1050H should normally be taken as the final course in the student's program.
  - 3.0 other FCE, of which at least 1.0 FCE must be in Educational Administration. Students may choose to focus on one of the four research areas: policy, leadership, change, and social diversity.

Normal Program Length – 5 sessions over 2 years (full-time); 10 sessions (part-time)

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+ average. 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

Normal Program Length – 4 years full-time; 6 years part-time

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.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

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
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 1036H Planning in Educational Organizations
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 1048H Educational Leadership and School Improvement
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
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 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
TPS 3145H Advanced Issues in Educational Policy Analysis and Program Evaluation
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.

Normal Program Length – 5 sessions (full-time); 12 sessions (part-time)

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 I program – 4.5 FCE. The MEd Option II program requires 4.0 FCE plus a master's research project/paper. Both options, if pursued on a full-time basis, cannot be completed in less than 12 months. A comprehensive examination is required for both options. Additional information on the health professional education specialization may be obtained from Professor Linda Muzzin.

Normal Program Length – 5 sessions (full-time); 10 sessions (part-time)

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.

Normal Program Length – 4 years full-time; 6 years part-time

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.

Normal Program Length – 4 years (full-time PhD); 6 years (flexible-time PhD)

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 and Policy Change: Education Toward Social and Ecosystem Healing
TPS 1838H Continuing Education
TPS 1839H Administration of Technology in Higher 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
    (Students who have taken TPS 1017H, TPS 1841H are not eligible to take TPS 2006H)
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:
  o TPS 1419H *Historiography and the History of Education* (0.5 FCE) and TPS 1440H *An Introduction to Philosophy of Education* (0.5 FCE).
  o 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:
  o Completion of TPS 1440H *An Introduction to Philosophy of Education* (0.5 FCE), unless a course deemed equivalent has already been taken.
  o 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.
  o 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.
- o Applicants with undergraduate majors in related social science and humanities disciplines are normally required to take some additional courses.

Normal Program Length – 3 sessions (full-time); 12 sessions (part-time)

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).
  - o Students enrolled in **Option II** are expected to complete at least 2.0 FCE from the History of Education course menu.
  - o Students enrolled in **Option IV** are expected to complete at least 2.5 FCE from the History of Education course menu. (See the OISE/UT Graduate Studies in Education Bulletin for a list of History of Education courses.)
- Completion of TPS 1460H History and Educational Research and TPS 1440H An Introduction to Philosophy of Education is mandatory in both options. 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

- The MEd degree in the History and Philosophy of Education Program - Philosophy 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).
  - o Students enrolled in **Option II** are expected to complete at least 2.0 FCE from the Philosophy of Education course menu.
  - o Students enrolled in **Option IV** are expected to complete at least 2.5 FCE from the Philosophy of Education course menu. (See the OISE/UT Graduate Studies in Education Bulletin for a list of Philosophy of Education courses.)

- Completion of TPS 1440H An Introduction to Philosophy of Education is mandatory in both options (unless a course deemed equivalent has already been taken).
- In addition, for both options one course in history is also mandatory, normally TPS 1419H Historiography and the History of Education. 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, the substituted course should be chosen to complement the student's primary focus in philosophy.

Normal Program Length – 5 sessions (full-time); 10 sessions (part-time)

Doctor of Education

Admissions have ceased for the EdD program in the History and Philosophy of Education.

The History and Philosophy of Education Program is currently not accepting any new PhD or EdD admissions in the History and Philosophy Program for 2010/11. However, PhD, EdD, and flexible-time PhD applicants who are interested in studying with history and philosophy faculty members should contact the Program Coordinator, Dr. Ruth Sandwell, to discuss 2010/11 application to the Department of Theory and Policy Studies. The History and Philosophy of Education Program continues to accept all applications to MA and MEd degree programs. For further information please e-mail the Program Coordinator, Dr. Ruth Sandwell ruth.sandwell@utoronto.ca.

The EdD degree is designed for career educators who wish to engage in the in-depth study of a problem or topic related to professional practice.

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

- 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 TPS1419H 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 cho-

sen 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.

Normal Program Length – 4 years full-time or 6 years part-time

Doctor of Philosophy
Admissions have ceased for the PhD program in the History and Philosophy of Education.

The History and Philosophy of Education Program is currently not accepting any new PhD or EdD admissions in the History and Philosophy Program for 2010/11. However, PhD, EdD, and flexible-time PhD applicants who are interested in studying with history and philosophy faculty members should contact the Program Coordinator, Dr. Ruth Sandwell, to discuss 2010/11 application to the Department of Theory and Policy Studies. The History and Philosophy of Education Program continues to accept all applications to MA and MEd degree programs. For further information please e-mail the Program Coordinator, Dr. Ruth Sandwell ruth.sandwell@utoronto.ca.

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:
1. 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 1440 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.

Normal Program Length – 4 years (full-time)

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.

History of Education

TPS 1400H	The Origins of Modern Schooling I: Problems in Education Before the Industrial Revolution
TPS 1401H	The Origins of Modern Schooling II: Problems in Nineteenth- and Twentieth-Century Educational History, Focus on Canada and the U.S.A.
TPS 1402H	History of Modern European Education
TPS 1403H	History of Education in Canada
TPS 1404H	History of Rural Education in Canada
TPS 1405H	History of Education and Society: Selected Topics
TPS 1406H	Sexuality and the History of Education
TPS 1410H	Schooling in the Movies: Education as Reflected in Hollywood Films
TPS 1415H	The History of the Teaching Profession
TPS 1416H	Ontario Education
TPS 1419H	Historiography and the History of Education
TPS 1420H	European Popular Culture and the Social History of Education: I
TPS 1422H	Education and Family Life in the Modern World I
TPS 1423H	The History of the Family in Canada
TPS 1424H	Religion, Ideology, and Social Movements in the History of North American Education
TPS 1426H	The History of Gender and Education in Canada
TPS 1427H	History and Commemoration: Canada and Beyond, 1800s-1900s
TPS 1428H	Immigration and the History of Canadian Education
TPS 1429H	Ethnicity and the History of Canadian Education
TPS 1430H	Gendered Colonialisms, Imperialisms and Nationalisms in History
TPS 1448H	Popular Culture and the Social History of Education: II
TPS 1452H	Individual Reading and Research in the History of Education: Master's Level
TPS 1454H	The Battle Over History Education in Canada
TPS 1460H	History and Educational Research
TPS 1461H	Special Topics in History of Education
TPS 3423H	Education and Family Life in the Modern World II
TPS 3428H	Minority Concerns and Education in Canadian History: Selected Topics
TPS 3452H	Individual Reading and Research in the History of Education: Doctoral Level
TPS 3461H	Special Topics in History of Education
TPS 3490H	EdD Seminar in the History of Education I
TPS 3491H	EdD Seminar in the History of Education II

TPS 3494H Doctoral Practicum in the History of Education I
TPS 3495H Doctoral Practicum in the History of Education II

Philosophy of Education

TPS 1432H Knowledge, Mind, and Human Beings
TPS 1433H Freedom and Authority in Education
TPS 1434H Human Rights, Politics, and Education
TPS 1435H Democracy and Education
TPS 1436H Modernity and Postmodernity in Social Thought and Education
TPS 1438H Democratic Approaches to Pedagogy
TPS 1439H Gender, Ethics, and Education: Philosophical Issues
TPS 1440H An Introduction to Philosophy of Education
TPS 1441H Philosophical Dimensions of Moral Education
TPS 1442H Cultural and Racial Difference in Education: Philosophical Perspectives
TPS 1443H 'Troubling' Knowledges in Education: the Politics of Claiming Truths
TPS 1444H Human Rights and Education in an International Context
TPS 1446H The Teacher as Philosopher
TPS 1447H Technology in Education: Philosophical Issues
TPS 1449H The Theory of Law and the Teaching of Law in the Schools
TPS 1450H Philosophy of Science and Science Education
TPS 1453H Individual Reading and Research in the Philosophy of Education: Master's Level
TPS 1459H Creativity and Education
TPS 1462H Women, Literature, and Education
TPS 1465H Special Topics in Philosophy of Education
TPS 1471H Critical Issues in Education: Philosophical Perspectives
TPS 1472H Philosophical Questions about the Teaching of Philosophy
TPS 1482H The Nature and Development of Religious Knowledge in Education
TPS 1484H Philosophy of Literature and Literature Education
TPS 1485H Literature and Values in Education
TPS 1487H Critical Discourses of Musical Experience and Education
TPS 1488H Feminist Theory, Musical Experience, and Music Education
TPS 3417H Research Seminar in Feminist Criticism, Aesthetics, and Pedagogy
TPS 3436H Aesthetics and Education
TPS 3441H Research Seminar in Moral Education: Part I
TPS 3443H Research Seminar in Moral Education: Part II
TPS 3447H Theories of Modernity and Education I
TPS 3453H Individual Reading and Research in the Philosophy of Education: Doctoral Level
TPS 3465H Special Topics in Philosophy of Education

TPS 3480H EdD Seminar in the Philosophy of Education I
TPS 3481H EdD Seminar in the Philosophy of Education II
TPS 3484H Doctoral Practicum in the Philosophy of Education I
TPS 3485H Doctoral Practicum in the Philosophy of Education II

Graduate Faculty

Full Members

Acker, Sandra - BA, MA, PhD
Anderson, Stephen - BA, MA, PhD
Bascia, Nina - PhD
Boler, Megan - BA, PhD
Bredo, Eric - BA, MS, MA, PhD *(Chair & Graduate Chair)*
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
Kilbourn, Brent - BS, PhD
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 *(Associate Chair, Program Coordinator, Educational Administration)*
Morgan, Cecilia Louise - BA, BA, MA, PhD
Mundy, Karen - AB, MA, PhD
Muzzin, Linda - BA, MA, MPsy, PhD
Ng, Roxana - BA, MA, PhD
Olsen, Christopher - BSc, MA, PhD
Padro, 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
Sa, Creso - BA, MA, DPhil
Sandwell, Ruth - BA, MA, PhD *(Program Coordinator, History & Philosophy)*
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
Boyd, Dwight - BA, MEd, EdD
Davis, John - BA, BEd, MEd, PhD
Lawton, Stephen - BA, MA, MA, PhD
Misgeld, Dieter - BA, PhD
Pierson, Ruth - BA, MA, PhD
Prentice, Alison - BA, MA, PhD
Skolnik, Michael - BPhil, BA, MA

Associate Members

Albert, Mathieu - PhD
Balan, Jorge - BA, AB, PhD
Batty, Helen - MEd, MD
Chen, Liang - BA, MBA, MSc, PhD
Di Paolantonio, Mario - AM, PhD, PhD
D'Souza, Mario Osbert - BA, MEd, MDiv, PhD
Dubrowski, Adam - BSc, MSc, PhD
Flessa, Joseph - BA, MA, PhD
Gavigan, Shelley Ann Marie - AB, LLB, MA, LLM, SJD
Hilliard, Robert - MD, MD
Janzen, Katharine - BS, BN, MEd, EdD
Kane, Gabrielle - MEd, MBChB
LeBlanc, Vicki - PhD
Macdonald, Geraldine - BSN, MEd, EdD
McIlroy, Jodi - BHSC(P/T), MA, PhD
Mendlowitz, Sandra - PhD
Nasmith, Louise - AB, AB, MDCM
Norris, Trevor - BA, BEd, BA, BEd, MA, MA, PhD, PhD
Nyhof-Young, Joyce - PhD
Poldre, Peeter - MD
Raphael, Dennis - PhD
Reeves, Scott - BSc, MSc
Richmon, Malcolm - BA, BEd, MA, PhD
Seifert, Tricia - BA, MS, PhD
Seller, Wayne - BA, MEd
Stickney, Jeffrey - BA, BEd, PhD
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. **Diaspora and Transnational Studies**
   • Women and Gender Studies, MA
6. **Environment and Health**
   • Women and Gender Studies, MA
7. **Environmental Studies**
   • Women and Gender Studies, MA
8. **International Relations**
   • Women and Gender Studies, MA
9. **Jewish Studies**
   • Women and Gender Studies, MA
10. **Sexual Diversity Studies**
    • Women and Gender Studies, MA
11. **South Asian Studies**
    • Women and Gender Studies, MA
12. **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:
  - 1.5 core full-course equivalents (FCE) in Women and Gender Studies (WGS 1000H, WGS 1001H, and WGS 1002H)
  - 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°).
  - 1.0 FCE Master's Research Paper (WGS 1005Y)
  - 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 not offered on a part-time basis.

Normal Program Length – 3 sessions (full-time)

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 in Women and Gender Studies
WGS 1007H Directed Research/Reading
WGS 1008Y Independent Research and Reading in
　　　　　　　Women and Gender Studies
WGS 1009H Special Topics in Feminist Studies 1
WGS 1010H Special Topics in Feminist Studies 2
WGS 1011H Special Topics in Feminist Studies 3
WGS 1012Y Special Topics in Feminist Studies 4
WGS 1013H Special Topics in Feminist Theory 1
WGS 1014H Special Topics in Feminist Theory 2
WGS 1015Y Special Topics in Feminist Theory 3
WGS 1016H Special Topics in Feminist Studies
WGS 1017H Special Topics in Feminist Studies
WGS 1018H Special Topics in Feminist Studies
WGS 1019H Special Topics in Feminist Studies
WGS 1020H Special Topics in Feminist Studies
WGS 1021H Special Topics in Feminist Studies
WGS 1022H Special Topics in Feminist Studies
WGS 1023H Special Topics in Feminist Studies
WGS 1024H Special Topics in Feminist Studies
WGS 1025H Special Topics in Feminist Studies

Graduate Faculty

Full Members

Alexander, Mary (Jacqui) - BSW, MA, PhD
Armatage, Kay - BA, MA, PhD
Bamford, Sandra - BA, MA, MPA, ScD
Boddy, Janice - BA, MA, PhD
Brown, Elspeth - MA, PhD
Cobb, Michael - BA, MA, AM, PhD
Coloma, Roland Sintos - TD, BA, MA, MA, PhD
Columpar, Corinn - BA, PhD
Cook, Rebecca - BA, LLM, MA, MPA, JD, SJD
Cossman, Brenda - LLB, LLM
Cowen, Deborah - BA, MCP, PhD
Dave, Prakruti - BA, MA, PhD
Dehli, Kari - BA, MA, PhD
Eichler, Margrit - MA, PhD, LLD
Fox, Bonnie - AB, PhD
Georgis, Dina - PhD
Keith, Alison - BA, MA, PhD
Klassen, Pamela - BA, MA, PhD
Larson, Katherine - BMus, AB, MPH, PhD
Lo, Marieme - DPhil
McElhinny, Bonnie – PhD *(Director)*

° Courses which may continue over a program. The course is graded
　when completed.

Miles, Angela - BA, MA, PhD
Mirchandani, Kiran - BA, MPH, PhD
Mojab, Shahrzad - BA, MEd, EdD
Morgan, Kathryn - BA, MA, MEd, PhD
Morgenstern, Naomi - BA, MA, PhD
Murphy, Michelle - BA, PhD *(Coordinator of Graduate Studies)*
Newton, Melanie - BA, PhD
Ng, Roxana - BA, MA, PhD
Nyquist, Mary - BA, MA, PhD
Razack, Sherene - BA, MA, PhD
Rittich, Kerry - BAMusic, LLB, SJD
Ruddick, Susan - PhD
Salih, Sara - BA, DPhil
Song, Je Sook - BA, PhD
Sykes, Heather - BSc, PhD
Tambe, Ashwini - BA, MA, PhD
Taylor, Judith - BA, PhD
Titchkosky, Tanya - BA, MSS, PhD
Trotz, Alissa - AB, MPH, PhD
Valverde, Mariana - BA, MA, PhD, Fell Royal Society
　Canada

Associate Members

Larkin, June - PhD

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 – MPH, 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) 978-1883

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

Minimum Admission Requirements
- Applicants 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 a core course (0.5 full-course equivalent (FCE)) chosen from the list below or an individual reading course to be approved and supervised by a member of the Collaborative Program in Aboriginal Health.
- In home graduate units where a thesis or major research paper is required, it must deal with an Aboriginal health topic. At least one member of the student's thesis committee should be a core faculty member of the Collaborative Program.
- 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
- Applicants 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.
- Students who have previously taken one of the core courses (0.5 FCE) during their master's program are

required to take a different course during their doctoral program.

* Students participate in a new Research Seminar Series and at least one National/Regional Workshop.

Course List

Core Courses
CHL 5421H   Aboriginal Health
NUR 1014H   Politics of 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 - 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 – MASc, 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 behaviours. Master's programs requiring a thesis, practicum, or research paper, and doctoral programs are included. Upon fulfilment of the program requirements, transcripts issued by the School of Graduate Studies will denote completion of the Collaborative Program in Addiction Studies.

Contact and Address
Web: www.phs.utoronto.ca/c_copas.htm
E-mail: robert_mann@camh.net
Telephone: (416) 535-8501 ext. 4496

R.E. Mann, Director
Collaborative Program in Addiction Studies
University of Toronto
Centre for Addiction and Mental Health
33 Russell Street, Room 2035
Toronto, Ontario M5S 2S1
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. 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 6123H 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
Medicine

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 – MPH, 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/or the field of palliative and supportive care, with an emphasis on viewing aging and palliative 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 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".

Contact and Address
Web: www.aging.utoronto.ca
Telephone: (416) 978-0377
Fax: (416) 978-4771

Collaborative Program in Aging, Palliative and Supportive Care Across the Life Course
University of Toronto
Suite 106, 222 College Street
Toronto, Ontario M5T 3J1
Canada

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 his or her chosen study area (i.e., in aging and the life course or in palliative and supportive care).

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 and the 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 his or her program of study) would be in his or her chosen study areas (i.e., in either aging and the life course or palliative and supportive care.

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 1187H   Alternative Ways 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
EXS 5502H   Aging and Functional Capacity: an Integrative Approach
NUR 1037H   Aging and Place: Social and Policy Transitions
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
SWK 4803H   Special Studies 3: Evidence-Based Counselling Strategies with Older Adults

Requests to approve other courses as equivalent to fulfil 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
AGE 1250H   Relational Practices with Families in Oncology and Palliative Care
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 338H	Public Health Law
LAW 582H	Privacy, Property, and the Human Body
MSC 1051H	Research Bioethics
MSC 1060H	Biostatistics for Health Sciences
MSC 1090H	Intro to Clinical Biostatistics
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

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 doctoral program in one of the collaborating departments and the collaborative program. 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 fulfil the normal requirements of the PhD 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 1.0 full-course equivalent (FCE) in some area of philosophy other than the history of philosophy.
  o Successful completion of the Program's proseminar (AMP 2000Y).
  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.
  o Area or major field examinations must contain a paper involving translation from at least one of Greek, Classical or Medieval Latin, or Arabic (as appropriate to the area or field). This examination will be based on a substantial list of texts relevant to the field or area.
  o A reading knowledge of two modern languages other than English.

  In most cases, some of these elements will be fulfilled by program requirements in the doctoral program of the home unit.

Course List
AMP 2000Y   Collaborative Program in Ancient and Medieval Philosophy (CPAMP) Proseminar (CR/NCR)

Program Committee
Inwood, Brad - BA, MA, PhD - Classics and Philosophy **(Director)**
King, Peter - AB, PhD - Philosophy and CMS
Whiting, Jennifer - BA, MA, PhD - 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 in History 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 fulfil 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
Bendlin, Andreas – PhD - University of Toronto **(Director)**
Akrigg, Benjamin - BA, PhD - University of Toronto
Cottier, Michel - Licence-ès-Lettres, DPhil - University of Toronto
Kelly, Benjamin - BA, MA, DPhil - York University

Asia-Pacific Studies

Lead Faculty
Arts and Science

Participating Degree Programs
Anthropology – MA
East Asian Studies – MA
Economics – MA
Geography – MA
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 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.

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.

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
Munk School of Global Affairs
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
Silvey, Rachel – BA, MA, PhD – Planning
Bertrand, Jacques – BA, MSc, MA, PhD – Political
 Science
Peng, Ito – BSW, BSc, MA, PhD – Public Policy &
 Governance
Tsang, Ka Tat – BSocSc, 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.html
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:
  - o 1.5 or more FCE in Astronomy and Astrophysics
  - o 1.5 or more FCE in Physics
  - o 1.0 FCE from Astronomy and Astrophysics, Physics or a cognate department
  - o 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 – MPH, 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
155 College Street, Suite 754
Toronto, Ontario M5T 1P8
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:

- 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.
- 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:
  - 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
- 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 – Candlur, Liclur, LLM – Law
Upshur, Ross Edward – MA, MD, MSc, FRCP(C) – Medical Science
Peter, Elizabeth – BA, BSN, MSN, PhD – Nursing Science
Panitch, Vida – 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
Newman, Peter – BA, MSW, MS, 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 his or her 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.

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.
- Students admitted to the Collaborative Program, who are admitted to a PhD program in their home unit, will be subject to the requirements of the collaborating unit. 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 and will include a member from that collaborating 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 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
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 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
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

+ Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

MIE 1001H   Dynamics II
MIE 1062H   Robot Kinematics and Dynamics
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 1109H   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)*
Papangelakis, Vladimiros G. – 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 Toxicology

Lead Faculty
Medicine

Participating Degree Programs
Ecology and Evolutionary Biology – MSc, PhD
Laboratory Medicine and Pathobiology – MSc, PhD
Medical Science – MSc, PhD
Nutritional Sciences – MSc, PhD
Pharmaceutical Sciences – MSc, PhD
Pharmacology – MSc, PhD

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
Classics – MA, PhD
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 1001H *Introduction to Book History* (0.5 FCE), and BKS 1002H *Book History in Practice* (0.5 FCE), both of which should be 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 1001H and BKS 1002H.

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 fulfil 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 BKS 1001H *Introduction to Book History* (if that course has not been taken previously at the master's level), BKS 2000H *Advanced Seminar in Book History and Print Culture,* and BKS 2001H *Individual Practicum in Book History and Print Culture*. BKS 1001H must be taken as a prerequisite or co-requisite to BKS 2000H and BKS 2001H.
- 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 1001H   Introduction to Book History
BKS 1002H   Book History in Practice
BKS 2000H   Advanced Seminar in Book History and Print Culture
BKS 2001H   Individual 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
Master's Delegate – 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 – MASc, 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 and make a presentation, demonstrating excellence in cardiovascular research, at the annual Student Research Day.

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.
- Attend and make a presentation, demonstrating excellence in cardiovascular research, at the annual Student Research Day.

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.

EXS 5508H	Cardiovascular Disease and Exercise
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 Topics in Cardiovascular Sciences—Heart Function
JCV 3063H	Advanced Topics in Cardiovascular Sciences—Vascular
JEB 1365H	Ultrasound: Theory and Applications in Biology and Medicine
JTC 1331H	Biomaterials Science
LMP 1015H	Vascular Pathobiology
LMP 1504H	Cell and Molecular Biology of Cardiovascular Diseases
PSL 1462H	Molecular Aspects of Cardiac Function

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

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/community
      development.html
E-mail: urban.centre@utoronto.ca
Telephone: (416) 416 978-2072
Fax: (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

Master's Level

Admission Requirements
- Collaborative programs are administered under the auspices of the School of Graduate Studies.
- Applicants must be accepted for admission to a participating graduate unit and comply with the admission procedures of that unit before applying to the Collaborative Program in Community Development.
- 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.

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

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
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

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

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:
  - 0.5 full-course equivalent (FCE) required introduction: CIE 1001H Introduction to Comparative, International and Development Education
  - 0.5 core FCE CIDE master's level course
  - 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. Participation at a minimum of five seminars required.
- 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. 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). Participation at a minimum of five 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 1131H   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

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

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
TPS1807H 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 3423H 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

Geography
JPG 1509H   Feminism, Postcoloniality and
Development

Political Science
JPE 2408Y Political Economy of International
Development

Program Committee
Mojab, Shahrzad – 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
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 – MSc, PhD
Cell and Systems Biology – MSc, PhD
Immunology – MSc, PhD
Laboratory Medicine and Pathobiology – MSc, PhD
Molecular Genetics – MSc, PhD
Physiology – MSc, 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 MSc and PhD 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.

Upon successful completion of the MSc or 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, Director
Collaborative Program in Developmental Biology
Department of Molecular Genetics
University of Toronto
600 University Avenue, Room 884
Toronto, Ontario M5G 1X5
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.

Program Requirements
Students must:
- be registered in the master's program of one of the participating departments and must be undertaking research in developmental biology under the supervision of a member of the collaborative program.
- complete all degree program requirements of the participating department. In addition, they must complete the interdepartmental course JDB 1024Y.
- complete a MSc thesis in the topic area of developmental biology.

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.
- Prospective students should contact the Collaborative Program Director for additional details on admission procedures and course requirements.

Program Requirements
Students must:
- meet all respective degree requirements of the School of Graduate Studies, the home department, and the Collaborative Program.
- 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.
- complete all degree requirements of the participating 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 in the topic area of developmental biology.

Course List

The following courses are offered by the program every year:

JDB 1024Y   Topics in Developmental Biology
JDB 1025H   Developmental Biology
JDB 1026Y° Student Seminars in Developmental
               Biology

Program Committee

Biechele, Steffen – Molecular Genetics *(Student Representative)*
Borovina, Antonia – Molecular Genetics *(Student Representative)*
Harris, Tony – PhD – Cell & Systems Biology
Zuniga-Pflucker, JC – PhD – Immunology
Brill, Julie – PhD – Molecular Genetics
McNeill, Helen – PhD – Molecular Genetics *(Director)*
Roy, Peter – PhD – Molecular Genetics
Zhen, Mei – PhD – Molecular Genetics

° Courses which may continue over a program. The course is graded when completed.

Diaspora and Transnational Studies

Lead Faculty
Arts and Science

Participating Degree Programs
Anthropology – MA, MSc, PhD
Cinema Studies – MA
Drama – MA, PhD
English – MA, PhD
Geography – MA, MSc, PhD
German Literature, Culture and Theory – MA, PhD
History – MA, PhD
Political Science – MA, PhD
Religion – MA, PhD
Sociology – MA, PhD
Sociology in Education – MA, MEd, EdD, PhD
Spanish – MA, PhD
Women and Gender Studies – MA

Supporting Units
Centre for Jewish Studies
Centre for Diaspora and Transnational Studies

Overview
Diaspora in contemporary thought involves the shifting relations between homelands and host nations from the perspective of those who have moved, whether voluntarily or not. Diaspora emphasizes the inescapable lived translocal experiences of many migrant communities that exceed the boundaries of the nation-state. Questions of nostalgia, of the dynamics of co-ethnic identification, of the politics of homeland and host nation, and of the intergenerational shifts in responses to all these are central to studies of diaspora.

Transnationalism, on the other hand, focuses on flows and counterflows and the multistriated connections to which they give rise. It encompasses in its ambit not just the movement of people but also concepts of citizenship and multinational governance, the resources of information technology, and the realities of the global marketplace, among others.

Taken together, the two concepts of diaspora and transnationalism enable our understanding of the complex realities of vast movements of people, goods, ideas, images, technologies, and finance in the world today.

This Collaborative Program is designed to bring together both social science and humanities perspectives to augment our existing tri-campus undergraduate program and to contribute to increased research collaboration between participants in the program.

Contact and Address
Web: www.utoronto.ca/cdts/graduate.html
E-mail: cdts@utoronto.ca
Telephone: (416) 946 8464
Fax: (416) 978 7045

Diaspora and Transnational Studies Collaborative
    Program
Suite 230, 170 St. George Street
Toronto, Ontario M5R 2M8
Canada

Master's Level

Admission Requirements
*   Applicants are enrolled in a participating master's degree program in the graduate unit in which the research is conducted, which is known as the participating home graduate unit. The applicant must 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 unit.
*   Students must meet the requirements of the collaborative program as follows:
    o   0.5 full-course equivalent (FCE) seminar in Comparative Research Methods in Diaspora and Transnational Studies (DTS). As part of the Research Methods seminar, students are required to submit an ethnographic, archival, or documentary paper on a diasporic community in Toronto or elsewhere.
    o   0.5 FCE elective course to be decided each year by the Program Committee.
    o   The DTS collaborative components may be taken as electives for the purpose of satisfying home department requirements.
    o   If the student undertakes a major paper or thesis in their home department, this will be on a topic in diaspora and transnational studies, approved by the Program Committee.

Doctoral Level

Admission Requirements
*   Applicants shall be enrolled in a participating doctoral degree program in the graduate unit in which the research is conducted, which is known as the participating home graduate unit. The applicant shall meet the admission requirements of both the home graduate unit and the collaborative program.

- Students who complete the Collaborative Program at the master's level will not be eligible for the program at the doctoral level.

Program Requirements

- Meet all respective degree requirements of the School of Graduate Studies and the participating unit.
- Meet the requirement of the collaborative program as follows:
  o 0.5 full-course equivalent (FCE) seminar in Comparative Research Methods in Diaspora and Transnational Studies. As part of the Research Methods seminar, students are required to submit an ethnographic, archival, or documentary paper on a diasporic community in Toronto or elsewhere.
  o 0.5 FCE elective course to be decided each year by the Program Committee.
  o The DTS collaborative components may be taken as electives for the purpose of satisfying home department requirements.
  o The student's dissertation in their home department must be on a topic in diaspora and transnational studies, approved by the Program Committee.

Course List

DTS 1000H   Comparative Research Methods in
                     Diaspora and Transnationalism

Program Committee

Lambek, Michael - BA, MA, PhD - Anthropology
Columpar, Corinn - BA, PhD - Cinema Studies
Johnson, Stephen - BA, MA, PhD - Drama
Most, Andrea - BA, MA, PhD - English
Quayson, Ato - BA, PhD - English *(Director)*
MacDonald, Ken - BA, MA, PhD - Geography
Kwee, Hui Kian - BA, MA, PhD - History
Dehli, Kari - BA, MA, PhD - Sociology & Equity Studies
Klassen, Pamela -BA, MA, PhD - Religion
Najman, Hindy - AB, MA, PhD - Religion
Reitz, Jeffrey - PhD - Sociology
Blackmore, Josiah - PhD - Spanish

Dynamics of Global Change

Lead Faculty
Arts and Science

Participating Degree Programs
Adult Education and Community Development – PhD
Anthropology – PhD
Computer Science – PhD
Economics – PhD
Educational Administration – PhD
Geography – PhD
Health Policy Management and Evaluation – PhD
Law – SJD
Management – PhD
Medicine – 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 Global Affairs
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:
  - 0.5 full-course equivalent (FCE) core course in the Dynamics of Global Change
  - 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: http://projects.chass.utoronto.ca/textualediting
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
Andrée, 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

Educational Policy

Lead Faculty
Ontario Institute for Studies in Education

Participating Degree Programs
Adult Education and Community Development – MEd, MA, PhD
Curriculum Studies and Teacher Development – MEd, MA, PhD
Developmental Psychology and Education – MEd, MA, PhD
Educational Administration – MEd, MA, EdD, PhD
Higher Education – MEd, MA, EdD, PhD
History and Philosophy of Education - MEd, MA
Second Language Education – MEd, MA, PhD
Sociology in Education – MEd, MA, EdD, PhD

Overview
The Collaborative Program in Educational Policy serves students interested in developing an understanding of the factors associated with educational policy development and implementation, with particular emphasis on developing theoretical and practical strategies for improving educational processes. The Collaborative Program's intellectual objectives include providing students with exposure to cross-field and cross-disciplinary approaches to educational problem framing and problem solving in order to broaden the possibilities for innovative and effective policy analysis; helping students understand how to apply theoretical concepts to particular social and educational problems in particular settings; and understanding the broader social, institutional and policy contexts within which educational policy processes occur.

Annual activities including a lecture series, conferences for educators and researchers, publications and cross-specialization research initiatives both enhance the intellectual infrastructure of the academic program and provide a basis for collaborative work. Canada Research Chairs, the Ontario Research Chair, endowed chairs and others with policy expertise in TPS, across OISE, the University of Toronto and other educational institutions link their work through these program-related activities.

Upon successful completion of the degree requirements of the home department and the Collaborative Program, students receive the notation "Completed Collaborative Program in Educational Policy" on their transcript.

Contact and Address
Web: TBA
E-mail: TBA
*Telephone: (*416) 978-1203; (416) 978-1159
Fax: (416) 926-4741

Collaborative Program in Educational Policy
Department of Theory and Policy Studies in Education
Ontario institute for Studies in Education
University of Toronto
252 Bloor Street West, 6-119
Toronto, Ontario M5S 1V6
Canada

Master's Level

Admission Requirements
- Applicants must apply to and be accepted by both their "home" program and the Collaborative Program in Educational Policy.
- In addition to corresponding to all home program requirements, the applicant shall submit a sample of writing, no longer than three pages, that includes:
  o Relevant personal and/or professional experiences, a career plan, and motivation in seeking admission to the Collaborative Program in Educational Policy.
  o An indication of specific courses of interest.
  o For thesis students, a brief outline of proposed research project.
  o For thesis students, indication of preference of supervisor.
- Applicants who are interested in applying to the Collaborative Program at the time of their initial application to their home graduate program should indicate this on their application and advise referees that letters of support will be used in application for both the home program and the Collaborative Program.
- Students who develop an interest in admission to the Collaborative Program after they have been admitted to their home program may also apply during their course of study. Requests from students already enrolled will be considered once a year at the same time as initial admission files are reviewed.

Program Requirements
- All master's students in the Collaborative Program:
  o take the core half-course TPS 3045H *Policy and Program Evaluation*.
  o attend the Collaborative Program in Educational Policy Seminar Series over two consecutive sessions. Collaborative Educational Policy Seminars occur once a month; attendance is required.
  o are encouraged, but not required, to enrol in an elective half course in the area of educational policy selected from the list of electives below.
  o take the remaining courses for the fulfillment of the degree requirements of the home program.
  o enrolled in home programs requiring a master's research project or thesis will be required to incorporate educational policy issues in their research; a member of the Collaborative Program core faculty will serve as supervisor or committee member.

- MEd Program: The total number of courses required for graduation will equal 6, 8, or 10.
- MA Program: The total number of courses required for graduation will equal 6 or 8.

Course List
Master's level electives
AEC 1171H   Aboriginal Education: Contemporary Policies and Programs
CTL 1816H   Official Discourses and Minority Education
CTL 3000H   Foundations of Bilingual and Multicultural Education
CTL 3008H   Critical Pedagogy, Language and Cultural Diversity
CTL 3018H   Language Planning and Policy
HDP 1211H   Psychological Foundations of Early Development and Education
HDP 1241H   Outcomes of Early Education and Child Care
HDP 1259H   Child and Family Relationships – Implications for Education
SES 1902H   Introduction to Sociological Methods in Education
SES 1903H   Introduction to Sociological Theory in Education
SES 1912H   Foucault and Research in Education
SES 1948H   Sociology of Race and Ethnicity
SES 1951H   School and Community
SES 1954H   Marginality and the Politics of Resistance
SES 2942H   Education and Work
TPS 1020H   Teachers and Educational Change
TPS 1428H   Immigration and the History of Canadian Education
TPS 1429H   Ethnicity and the History of Canadian Education

Doctoral Level

Admission Requirements
- Students interested in participating in the Collaborative Program in Educational Policy at the doctoral level must apply to and be accepted by both their "home" program and the Collaborative Program.
- In addition to corresponding to all home program requirements, the application shall include a sample of writing, no longer than three pages, that includes:
  o Relevant personal and/or professional experiences, a career plan, and motivation in seeking admission to the Collaborative Program in Educational Policy.
  o An indication of specific courses of interest.
  o A brief outline of proposed research project.
  o Indication of preference of supervisor.
- Applicants who are interested in applying to the Collaborative Program at the time of their initial application to their home graduate program should indicate this on their application and advise referees that

letters of support will be used in applicaiton for both the home program and the Collaborative Program.
- Students who develop an interest in admission to the Collaborative Program after they have been admitted to their home program may also apply during their course of study. Requests from students already enrolled will be considered once a year at the same time as initial admission files are reviewed.

Program Requirements
- All doctoral students in the Collaborative Program:
  o take the core half-course:TPS 3045H *Policy and Program Evaluation*, if not already taken.
  o take the core half-course TPS 3145 *Advanced Issues in Educational Policy Analysis and Program Evaluation*.
  o attend the Collaborative Program in Educational Policy Seminar Series over two consecutive sessions. Collaborative Educational Policy Seminars occur once a month; attendance is required.
  o are encouraged, but not required, to consider one or more elective half courses in the area of educational policy selected from the list of electives below. The remaining half-courses will be those required for the fulfillment of the degree requirements of the home program.
  o are required to complete a thesis which incorporates issues of educational policy. A member of the Collaborative Program core faculty will serve as supervisor or committee member.
- The total number of courses required for graduation for both the EdD and PhD will equal 8, depending on the requirements of the student's home program.

Course List
Doctoral level electives
AEC 3113H   Adult Education and Public Policy
CTL 1816H   Official Discourses and Minority Education
CTL 3008H   Critical Pedagogy, Language and Cultural Diversity
CTL 3018H   Language Planning and Policy
SES 2941H   Social Inequality in Education
SES 2999H   Aboriginal Peoples and Citizenship
JSA 5147H   Language, Nationalism and Postnationalism
TPS 3018H   Governing Education: a Seminar on Politics
TPS3020H   Educational Change in the Postmodern Age
WPL 3931H   Doctoral Seminar in Workplace Learning and Social Change

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 – MPH, 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" and an official parchment from the School of Graduate Studies.

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 environment and health 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 the 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

DiFrancesco, Richard – PhD, MCIP, RPP – Geography, Environment **(Graduate Coordinator)**
Stefanovic, Ingrid – BA, MA, PhD – Environment
Wiseman, Clare – BS, MSc, PhD – Environment
Daniere, Amrita – AB, MPP, 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
Materials Science and Engineering – MASc, MEng, PhD
Mechanical and Industrial 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 transcripts: "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) 946-0371

Environmental Engineering Collaborative Program
Division of Environmental Engineering and Energy
 Systems
University of Toronto

Office address:
Room 1015, 44 St. George Street
University of Toronto

Mailing address:
35 St. George Street
Toronto, Ontario M5S 1A4
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 and from the Division.
- 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.

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 a research thesis, 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 a thesis. 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.
- o   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 – MScPl, 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" and an official parchment from the School of Graduate 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. Please note that requirements in some participating programs vary slightly. Therefore, we encourage students to check the calendar entries for their respective "home" department programs. The Centre also offers students in non-thesis master's degree stream the opportunity to complete an internship in fulfilment 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 one half-course elective (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).

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). For current graduate course listing, please refer to the Centre for Environment Web site at www.environment.utoronto.ca/Graduate/CourseSchedules.aspx.

Core Course
ENV 1001H   Environmental Decision Making

CFE Elective Courses
ENV 1002H   Environmental Policy
ENV 1004H   Urban Sustainability and Ecological Technology
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 2000H,Y Topics in Environmental Studies
ENV 2002H   Special Topics—Environmental Studies

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered

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: Adult Education for Sustainability
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 1402H   Environment and Development
JPG 1404H   Issues in Global Warming
JPG 1407H   Efficient Use of Energy
JPG 1408H   Carbon-Free Energy
JPG 1414H   Cities as Ecosystems
JPG 1415H   Global Environmental Justice and Social Movements
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 Environmental Sustainability and Social Justice I

Program Committee

Laiken, Marilyn – BA, MA, PhD – Adult Education & Counselling Psychology

Boddy, Janice – BA, MA, PhD – Anthropology

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

Smith, Sandy – BScAgr, MSc, PhD – Forestry

Maclaren, Virginia – BA, MPI, MS, PhD – Geography

DiFrancesco, Richard – PhD, MCIP, RPP – Geography, Environment

Cruden, Alexander – BSc, PhD – Geology

Ross, Seamus – BA, MA, 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

Dehli, Kari – BA, MA, PhD – Sociology and Equity Studies in Education

McElhinny, Bonnie – PhD – Women & Gender Studies

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
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
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

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
Verma, Anil – 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
Phil Triadafilopoulos – 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 & 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 cooperation 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, inter-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 PhD requirements of the host department and the program, students receive the notation "Completed Program in Genome Biology and Bioinformatics" on their transcripts.

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

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

Irwin, David – BSc, 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

Master's 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 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:
  - The core course GLG 1101H (0.5 FCE)
  - Two lecture courses in Geology (1.0 FCE)
  - Two lecture courses in Physics (1.0 FCE)
  - 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.
- 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 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

Lead Faculty
Medicine

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.

Contact and Address
Web: www.phs.utoronto.ca/PhD_Global_Health.asp
E-mail: Assistant: elayna.fremes@utoronto.ca
          Director: donald.cole@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
Health Sciences Building
6th floor, 155 College Street
Toronto, Ontario M5T 3M7
Canada

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:
  o NUR 1083H *Comparative Politics of Health and Health Policy in a Globalizing World*
  o one elective (outside of the home department) selected from the list below
  o participation in CHL 5701H (0.5 FCE) global health research seminar series for the equivalent of three academic sessions
  o 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
CHL 5701H   Doctoral Seminar, Collaborative Program in Global Health.
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
ANT 6040H   Approaches to Fieldwork I
ANT 7001H   Medical Anthropology I
ANT 7002H   Medical Anthropology II

Bioethics

CHL 5121H   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

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
Lemmens, Trudo - LLM, DCL – Law
Muntaner, Carles - MD, PhD - Nursing Science
Cohen-Kohler, Jillian - BA, MA, PhD – Pharmaceutical
  Sciences
Birn, Anne-Emanuelle - BA, MA, DSc – Public Health
  Sciences
Cole, Donald C. - MSc, MD – Public Health Sciences
  (Director)
Orbinski, James - MA, MSc, MD – Public Health
  Sciences
Samuels, Jeannie – MA - Public Health Sciences
Taleski, Sarah – MHSc - Public Health Sciences
Nixon, Stephanie – BHSc, MSc, PhD - Rehabilitation
  Sciences

Health Care, Technology and Place

Lead Faculty
Medicine

Participating Degree Programs
Biomedical Engineering – PhD
English – PhD
Health Policy, Management and Evaluation – PhD
Mechanical and Industrial Engineering – 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 interdisciplinary 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) 978-7350

Collaborative Program in Health Care, Technology and Place
University of Toronto
Suite 425, 155 College Street
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

Course changes are forthcoming and will be announced by Winter 2010.

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

Bewell, Alan – BA, MA, PhD – English

Coyte, Peter C. – BA, MA, PhD – Health Policy, Management & Evaluation *(Director)*

Rotstein, Ori – MSc, MD, FRCS(C) – Medical Science

O'Brien-Pallas, Lind – RN, PhD, FCAHS – Nursing Science

MacKeigan, Linda – BScPhm, PhD – Pharmaceutical Sciences

Ahmad, Farah – MBBS, MPH, PhD – Public Health Sciences

Reid, Denise – BSc(OT), MEd, PhD – Rehabilitation Science

Newman, Peter – BA, MSW, MS, 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, 55 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:
  - demonstrate academic excellence in completed courses (B+ average in graduate courses), scholarships and academic awards received;
  - 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);

- - outline career plans (in an autobiographical letter including their reasons for becoming a health services researcher and their career plans); and
  - propose a plan of study in the Collaborative Program.
- Students who complete the Collaborative Program at the master's level are not eligible to participate at the PhD level.

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 Policy, Management and Evaluation – MSc
History – MA
Political Science – MA
Religion – MA
Sociology – 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

Admissions have ceased effective September 2010.

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
Classics – MA, PhD
Comparative Literature - MA
English – MA, PhD
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
Philosophy – 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."

Contact and Address
Web: www.cjs.utoronto.ca
E-mail: cjs.director@utoronto.ca
Telephone: (416) 978-1624
Fax: (416) 946-7719

Collaborative Program in Jewish Studies
University of Toronto
Sidney Smith Hall
Room 5016F, 100 St. George Street
Toronto, Ontario M5S 3G3
Canada

Master's Level

Admission Requirements
- 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
- CJS1000H - completion of the core methods seminar in Jewish Studies. This seminar will introduce students to the different disciplines, methods, and approaches within Jewish Studies.
- 0.5 full course equivalent (FCE) in Jewish Studies taken within the student's home department or in another department (may count towards the course requirements of the student's home department).
- A comprehensive exam in Jewish Studies, supervised by a faculty member chosen from Jewish Studies and in consultation with the graduate chair from the student's home department, in which the student will be asked to show knowledge of areas of Jewish Studies relevant to his or her disciplinary focus.
- If the student's home program requires a major research paper or thesis, the focus of the paper must pertain to Jewish Studies, and the topic must be approved by the Director of the Collaborative Master's Program.

Doctoral Level

Admission Requirements
- 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
- CJS 2000H - Core Research colloquium in Jewish Studies that runs biweekly throughout the year.
- Two half-courses (1.0 FCE) one within and one outside of the student's home department, taught by a member of the CJS faculty (may count towards the course requirements of the student's home department).
- A doctoral dissertation that deals substantively with topics in Jewish Studies and is supervised or co-supervised by a CJS graduate faculty member.
- Students will be required to give one presentation at the Jewish Studies graduate student conference over the course of their doctoral program. The conference

#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.

will be held each year in the spirng. The paper presentation needs to be completed before the completion of the doctoral program.

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. Please consult the graduate unit for information about course availability.

Core Courses
CJS 1000H   Jewish Studies Master's Seminar
CJS 2000H   Jewish Studies Doctoral Seminar

Elective Courses

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

Germanic Languages and Literatures
GER 1400H   Soviet and Kosher: Jewish Popular Culture in the Soviet Union, 1917-1991.
GER 1530H   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

#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.

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 3641H   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 3647H   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 1207H   The Imaginary Jew

Program Committee

Kalmar, Ivan – BA, MA, PhD – Anthropology
Cohen, Adam – BA, MA, PhD – Art
Inwood, Brad – BA, MA, PhD – Classics
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
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
Information – MI
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 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 (exclusion: CTL 1926H)
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 1006H Media, Mind and Society I
C&T 1009H New Media and Policy
CSC 2501H Computational Linguistics
CSC 2502H Knowledge Representation and Reasoning
CSC 2504H Computer Graphics
CSC 2507H Conceptual Modelling
CSC 2511H Natural Language Computing
CSC 2514H Human-Computer Interaction
CSC 2518H Spoken Language Processing
CSC 2527H The Business of Software
CTL 1602H Introduction to Computers in Education
CTL 1603H Introduction to Knowledge Building
CTL 1608H Constructive Learning and Design of Online Environments
CTL 1609H Educational Applications of Computer Mediated Communication
CTL 1923H Technology Supported in Situ Learning
CTL 1926H Knowledge Media and Learning (exclusion: KMD 2003H)
FAH 1478H Art and Animation
INF 1230H Management of Information Organizations
INF 1340H Introduction to Information Systems
INF 1341H Analyzing Information Systems
INF 1342H Designing Information Systems
INF 1343H Data Modeling and Database Design
INF 2149H Administrative Decision-Making in Information Organizations
INF 2150H Advanced Management of Information Organizations
INF 2164H Authority and Credibility in Online Communications
INF 2169H User-Centred Information Systems Development
INF 2179H Interacting with Information Systems
INF 2183H Knowledge Management and Systems
INF 2187H Introduction to Inclusive Design
INF 2241H Critical Making: Information Studies, Social Values and Physical Computing
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   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

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 fulfil 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

Lead Faculty
Medicine

Participating Degree Programs
Biochemistry – MSc, PhD
Biomedical Engineering – MASc, 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 Collaborative 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 areas of research for all the faculty in the Collaborative Program and their graduate unit affiliations and contact information, as well as additional information on neuroscience courses.

Students in the program receive the University of Toronto Neuroscience Program (UTNP) 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.cai
E-mail: p.neuroscience@utoronto.ca
Telephone: (416) 978-8761
Fax: (416) 978-8511

Collaborative Program in Neuroscience
University of Toronto
Leslie Dan Faculty of Pharmacy Building
Room 904, 144 College Street
Toronto, Ontario M5S 3M2
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 units.

Program Requirements
- The thesis topic must be in the neuroscience area.
- The student's supervisor must be a member of the Collaborative Program in Neuroscience (CPIN).
- 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 Collaborative Program in Neuroscience which is listed below.
- The student must attend the Annual Poster Day and present his/her work at least once.
- The student must attend at least 75% of the lectures in the UTNP Distinguished Lecturers Series for a minimum of one year in consecutive sessions during their 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 units.

Program Requirements
- The thesis topic must be in the neuroscience area.
- The student's supervisor must be a member of the Collaborative Program in Neuroscience (CPIN).
- All PhD students must take JNR 1444Y *Fundamentals of Neuroscience: Cellular and Molecular,* or JNS 1000Y *Fundamentals of Neuroscience: Systems and Behaviour*, or one of several additional courses in cognitive psychology or imaging (1.0 FCE) to be determined by the CPIN Program Committee and posted on the CPIN Web site in July of each year.
- The student must attend the Annual PIN Poster Day and present his/her work at least twice.
- The student must attend at least 75% of the lectures in the UTNP Distinguished Lecturers Series for a minimum of three consecutive years during their studies.

- After completing the MSc or MA, students who wish to continue on to a PhD degree in Neuroscience must register again and fulfil all the program requirements (e.g., students must again present posters 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 Neurotransmitter Receptors
JYG 1555H   Topics in Cellular and Molecular Neurobiology
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 4706H   Human Brain Neuroanatomy
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
PSY 5311H   Advanced Topics in Developmental Neuroscience II
REH 1510H   Disordered Restorative Motor Control
JEB 1444H   Neural Engineering
JEB 1451H   Neural Bioelectricity
MSC 1081H   Studies in Schizophrenia
MSC 1086H   Integrative perspectives in Consciousness and Self-Awareness
MSC 1087H   Neuroimaging Methods Using Magnetic Resonance Imaging
MSC 1088H   Brain Positron Emission Tomography
PSL 1050H   Advanced Topics: The Hippocampus from Cell to Behaviour
PSL 1071H   Advanced Topics: Computational Neuroscience
PSL 1441H   Systems Level Neuroplasticity
PSL 1445H   Mechanistic Molecular & Cellular Neuroscience
PSL 1446H   Molecular & Cellular Aspects of Neural Disorders

Other Courses

Courses not specifically in neuroscience which do not fulfil 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
Sessle, Barry – BDS, BSc, MSD, PhD, FRSC, Canada Research Chair – Dentistry
Lewis, Marc – BA, MA, PhD, CPsych – Human Development & Applied Psychology

+Extended course. For academic reasons, course work is extended into session following academic session in which course is offered.

Gerold Schmitt-Ulms – 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
 (CPIN Director)
Wells, James – BScPhm, MSc, PhD – Pharmaceutical
  Sciences
Burnham, Willets – BA, PhD – Pharmacology
Dostrovsky, Jonathan – BSc, MSc, PhD – Physiology
 (CPIN Advisor)
Jia, Zhengping – PhD – Physiology
Yeomans, John – BA, PhD – Psychology
Zebjec, Karl – PhD – Rehabilitation Science
De Nil, Luc – MSc, PhD – Speech–Language Pathology
Peever, John – BSc, MSc, PhD – Cell & Systems Biology

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 Chemistry; Electrical and Computer Engineering; Materials Science and Engineering, and Physics.

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
Cinema Studies – MA
Classics – MA, PhD
Counselling Psychology – MA, MEd, EdD, PhD
Criminology – MA, JD/MA, PhD
Curriculum Studies & Teacher Development – MA,
  MEd, 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
History and Philosophy of Science and Technology –
  MA, 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:
  o 0.5 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.
- 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:
Valverde, Mariana – BA, MA, PhD, FRSC – Criminology
Johnson, Stephen – BA, MA, PhD – Drama
Ruti, Marjut – BA, MA, PhD – English
Cossman, Brenda – BA, LLB, LLM – Law
Rayside, David – BA, AM, PhD – Political Science
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, MSc, PhD
East Asian Studies – MA, PhD
English – MA, PhD
Geography – MA, PhD
History – MA, PhD
Music – MA, PhD
Political Science – PhD
Religion – MA, 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 and doctoral students wishing to be admitted to the Collaborative Program must apply to one of the participating graduate programs.

Students who successfully complete the requirements of the Collaborative Program will receive the notation "Completed Collaborative Program in South Asian Studies" on their transcript, in addition to the master's or doctoral degree from their graduate unit.

Contact and Address
Web: www.utoronto.ca/csas/
E-mail: southasian.grad@utoronto.ca
Telephone: (416) 946-8832
Fax: (416) 946-8838

Collaborative Program in South Asian Studies
Centre for South Asian Studies
Munk School of Global Affairs
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. 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.
- If writing a thesis, it is expected to 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.

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
Cody, Francis – PhD – Anthropology
Naisargi, Dave – PhD – Anthropology
Miller, Heather – BA, MSc, MA, PhD – Anthropology
Dewan, Deepali – BA, MA, PhD – Art
Jain, Kajri – MA, PhD – Art
Sandahl, Stella – MA, PhD – East Asian Studies
Kanaganayakam, Chelvanayakam – BA, PhD – English
Goonewardena, Kanishka – BSc, MPI, PhD – Geography
MacDonald, Ken – BA, MS, PhD – Geography
Mahtani, Minelle – BA, PhD – Geography
Rankin, Katharine – BA, MRP, PhD – Geography
Birla, Ritu – BA, MA, MPhil, PhD – History
Sharma, Jayeeta – BA, MA, MPhil, PhD – History
Kasturi, Malavika – BA, MPhil, MA, PhD – History
Tambe, Ashwini – BA, MA, PhD – History, Women & Gender Studies
Benjamin, Solomon – MSArch, PhD – Policial Science
Rubinoff, Arthur – BA, MA, PhD – Political Science
Dhand, Arti – BA, MA, PhD – Religion
Emmrich, Christoph – BA, MA, PhD – Religion
Garret, Frances – BA, MA, PhD – Religion
McIntire, C. Thomas – BA, MA, MDiv, PhD – Religion
Raman, Srilata – BA, MPhil, PhD – Religion
Rao, Ajay – BA, MA, PhD – Religion
Virani, Shafique – BA, MA, PhD – Religion
Dhand, Arti – 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
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 fulfil 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.

- 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 1000H, 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 fulfil 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
Murphy, Michelle – BA, PhD – 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

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 & 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 – MScOT
Pharmacology– MSc, PhD
Psychology – MA, PhD
Public Health Sciences – MPH, PhD
Rehabilitation Science – MSc, PhD
Religion – MA, PhD
Women & 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, Philosophy, 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:
  - A personal statement or letter no longer than one page describing relevant personal and/or professional experiences, a career plan, and motivation in seeking advanced training in women's health.
  - 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:
  - A personal statement or letter no longer than one page describing relevant personal and/or professional experiences, a career plan, and motivation in seeking advanced training in women's health.
  - 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.
- Devise 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.
- Complete a 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)
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:
  - relevant personal and/or professional experiences and motivation in seeking training in Workplace Learning and Social Change (all applicants);
  - a brief outline of their proposed research project (thesis students);
  - indication of their preference of supervisor, if any (thesis students).

Program Requirements

Master of Education
- 5.0 full-course equivalents (FCE) as follows:
  - 0.5 core FCE (WPL 1131H);
  - 0.5 elective FCE in the area of workplace learning and social change;
  - 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:
  - 0.5 core FCE (WPL 1131H);
  - 0.5 elective FCE in the area of workplace learning and social change;
  - 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:
  - relevant personal and/or professional experiences and motivation in seeking training in Workplace Learning and Social Change (all applicants);
  - a brief outline of their proposed research project;
  - 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:
  - 0.5 core FCE (WPL 3931H);
  - 0.5 elective FCE in the area of workplace learning and social change;
  - 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:
  - 0.5 core FCE (WPL 3931H);
  - 0.5 elective FCE in the area of workplace learning and social change;
  - 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: Sociology of Learning and Social Movements
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: Rethinking Skills: Theory, Policy and Practice (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 & 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 the administrative home for the joint program in design and manufacturing offered at the master's level. The program 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, contact by mail:
Graduate Studies Office
Department of Mechanical and Industrial Engineering
5 Kings College Road
University of Toronto
Toronto, Ontario M5S 3G8
Canada

E-mail: admi@mie.utoronto.ca
Telephone: (416) 978-8823
Fax: (416) 978-3453

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

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 with grades equivalent to a mid-B or better. 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.

Normal Program Length – Four years (part-time)

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: Markus Bussmann, 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 two departments: Cell and Systems Biology and Chemistry.

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 two departments: Cell and Systems Biology and Chemistry. 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

Master of Biotechnology

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:
  - 5.0 to 6.0 FCE science credits (includes credits for Seminar and Placement)
  - 2.0 FCE business credits
  - 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.

BTC 1600H   Seminar in Bioscience/Biotechnology I
BTC 1610H   Seminar in Bioscience/Biotechnology II
BTC 1700H   Molecular Biology Laboratory
BTC 1710H   Protein Chemistry Laboratory
BTC 1800H   Biotechnology in Medicine
BTC 1810H   Biotechnology and Corporations
BTC 1820H   Biotechnology in Agriculture and Natural Products
BTC 1900Y[o]   Work Term I
BTC 1910Y[o]   Work Term II
BTC 1920Y   Work Term III
BTC 2000H   Organizational Skills
BTC 2010H   Fundamentals of Managerial Concepts
BTC 2020H   Science, Technology, Organizations and Society
BTC 2030Y   Management of Technological Innovation

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.

[o] Courses which may continue over a program. The course is graded when completed.

Program Committee

Krull, Ulrich - BSc, MSc, PhD, AstraZeneca Professor of Biotechnology - Chemistry

Lange, Angela - BSc, PhD - Cell & Systems Biology

Prosser, Scott - BSc, MSc, PhD - Chemistry *(Director)*

Revers, Leigh - MA, DPhil - Cell & Systems Biology *(Associate Director)*

Tombak, Mihkel - BASc, MBA, AM, PhD - Management

Westwood. J. Timothy - BSc, MSc, PhD - Cell & Systems Biology

Additional faculty are selected from the Departments of Cell and Systems Biology, Chemistry and 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

Master of Financial Economics

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
Aivazian, Varouj - BS, MA, PhD - Economics **(Director)**
Alexopoulos, Michelle - BSc, MA, PhD - Economics
Anderson, Gordon - BA, MSc, PhD - Economics
Carr, Jack - BCom, MA, PhD - Economics
Fuster, Maria Luisa - BA, MA, PhD - Economics
Goh, Chuan - BSc, MA, PhD - Economics
Jump, Gregory - BA, PhD - Economics
Maheu, John - BA, MA, PhD - Economics
Malinova, Ekaterina - BSc, MA, PhD - Economics
Melino, Angelo - BA, PhD - Economics
Mondria, Jordi - BA, MA, PhD - Economics
Park, Andreas - MSc,MPh,PhD - Economics
Pesando, James - BA, MA, PhD - Economics
Yatchew, Adonis - BA, MA, PhD - Economics
Zhu, Xiaodong - BSc, MSc, PhD - Economics
Booth, Laurence - BSc, MA, MBA, DBA - Management
Halpern, Paul - BCom, MBA, PhD - Management
Hull, John - BA, MA, MA, PhD - Management
Kirzner, Eric - MBA - Management
McCurdy, Thomas - BA, MA, PhD - Management
White, Alan - BEng, MBA, PhD - Management

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