UNIVERSITY OF TORONTO

University of Toronto Scarborough

2020-21 Calendar

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1. Welcome to UTSC

1.1 Greetings from the Vice-Principal Academic and Dean

Welcome to the University of Toronto Scarborough (UTSC). In joining UTSC you'll take your place among Canada's future leaders. As part of the University of Toronto, which is widely recognized as Canada's top university, and also one of the best public research universities in the world, UTSC offers a unique opportunity for students seeking an exceptional learning experience in a supportive community environment.

UTSC undergraduate programs are unique at the wider University for their combination of rigorous academic learning and hands-on experience. Through meaningful volunteer opportunities, stimulating field courses and eye-opening international exchanges, you receive a first-hand understanding of what you're learning in the classroom, and how it applies to the world. For even more experience in your chosen field, you can apply to one of our many innovative Co-op programs, which provide invaluable knowledge from experts working in your program of study while you create your professional network.

Leading researchers at the cutting edge of their fields bring fresh thinking and current knowledge from industry and academia into the classroom. Ambitious students can contribute to research teams in search of the next big breakthrough or experience meaningful and relevant work placements with some of Canada's top employers.

We invite you to look through this undergraduate academic *Calendar* with a view towards both choosing programs that will allow you to progress through your degree, as well as the courses that will allow you to progress through your program(s), and gaining a sense of the extraordinary breadth of learning opportunities on offer at UTSC. Remember that we have dedicated staff on hand to help you make the best academic choices – they can be found in the academic units, the Office of the Registrar, and the Academic Advising & Career Centre.

Best wishes for a successful academic career,

Professor William Gough
Vice-Principal Academic and Dean

2. Understanding the Academic Calendar

The Academic *Calendar* is published online, annually, usually by mid-May. It outlines rules, regulations, and curriculum for the University of Toronto Scarborough (UTSC) only.

Students should be aware that UTSC is a separate faculty of the University of Toronto, and **rules covering students registered at UTSC may differ from rules in the other arts and science divisions, including the Faculty of Arts and Science (FAS), and University of Toronto Mississauga (UTM)**. UTSC students contemplating transfers to other divisions or faculties are urged to consult Enrolment Services to establish how they will be affected.

The publication of information in the *Calendar* does not bind UTSC to the provision of any identified courses, programs or facilities. In addition, UTSC reserves the right to change, without notice, any information contained in the *Calendar*, including any rules or regulations, as well as fees and other charges. Although every effort is made to ensure the *Calendar* is complete and correct at the time of publication, from time to time changes are necessary. Any amendments to the *Calendar* are posted on the *Calendar* Updates page of the online *Calendar*. Students are strongly advised to check this page regularly to keep informed of changes.

2.1 Student Responsibility

Students are responsible for making themselves familiar with all of the information in the *Calendar*, and should also pay close attention to information and instructions posted to the Office of the Registrar website. Students who are in doubt as to any rule, deadline or requirement are responsible for seeking guidance from a responsible officer. Misunderstanding, or advice received from another student, will not be accepted as cause for special consideration or dispensation. Designated undergraduate advising staff in the academic units, the Office of the Registrar and the Academic Advising & Career Centre are best placed to assist students in interpreting UTSC academic regulations, and explaining their application in particular cases. Where appropriate, they will help those who encounter special difficulties to request special consideration.

2.2 UTSC Office of the Registrar

The Office of the Registrar is the place to visit for help with course and program enrolment, attendance letters, general questions about academic regulations, degree requirements, and re-enrolment for students returning after any suspension or absence from studies lasting 12-months or more. The office also offers online information, resources, and services for students who find it difficult to visit in person.

The Office of the Registrar Website:
Students will find information concerning courses and programs, important dates and deadlines, fee information, refund schedules, final examination schedules, financial aid information, student card (TCard) production, rules and regulations, and office location and hours of operation. To speak with a Registrar Staff representative, students can access the Online Chat Service.

eService:
eService is UTSC's portal to online services offered by the Office of the Registrar. It allows UTSC students to request and, where necessary, pay for services without having to visit the office in person. Students may request services such as: clerical check of a final grade; ordering a final exam; requesting a change in degree type; reporting a final exam problem; withdrawing late from a course; applying for a bursary, or submitting a petition.

AskRO:
This web form allows students to submit a question online, and receive a response within 2-4 business days.

ACORN:
University of Toronto student records are maintained by a student-friendly web-based system called ACORN. These records are shared with Degree Explorer, a web-based academic audit and advising system.

Students can use ACORN to access a variety of online enrolment services, such as:

- Course and program enrolment;
- Viewing grades, and academic status;
- Requesting transcripts;
- Viewing the financial account;
- Updating personal information;
- Listing ACORN transactions and viewing their Personal and Final Examination Timetable; and
- Requesting graduation.

2.3 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, safety, financial assistance and awards, graduation and university advancement, and for the purpose of statistical reporting to government agencies.

In addition, the Ontario Ministry of Colleges and Universities has asked that we notify you of the following: the University of Toronto is required to disclose personal information such as Ontario Education Numbers, student characteristics and educational outcomes to the Minister under s. 15 of the *Ministry of Training, Colleges and Universities Act* (1990, last amended 2020). The Ministry collects this data for purposes such as planning, allocating and administering public funding to colleges, universities and other post-secondary educational and training institutions, and to conduct research and analysis, including longitudinal studies, and statistical activities conducted by, or on behalf of, the Ministry for purposes that relate to post-secondary education and training. Further information on how the Minister uses this personal information is available on the Ministry's website.

At all times your personal information will be protected in accordance with the *Freedom of Information and Protection of Privacy Act* (1990, last amended 2020). If you have questions, please refer to the following website or contact the University FIPP Coordinator at 416-946-7303, McMurrich Building, Room 104, 12 Queen's Park Crescent West, Toronto, ON, M5S 1A8. An expanded version of this Notice can be found on the following website.

2.4 Official University Correspondence With Students

University correspondence with students is governed by the *Policy on Official Correspondence with Students* (2006).

The University may use the postal mail system and email to correspond with students. Email is the primary method of communicating with students regarding registration, student accounts, and other important or time-critical business. All University of Toronto students are provided with an official University *UTmail+* email address (@mail.utoronto.ca), and are expected to use it while conducting official University-related correspondence. Setting up this official account is mandatory for all University of Toronto students: instructions are available on the following website. Students are expected to monitor and retrieve their official correspondence on a frequent and consistent basis.

In addition, students are responsible for maintaining current and valid contact information in ACORN. Neglecting to report changes in contact information in a timely manner will not be considered an acceptable reason for failing to act on official correspondence.

3. UTSC Academics At-A-Glance

3.1 Senior Academic Administration

Professor Wisdom Tettey: Vice-President and Principal
Professor William Gough: Vice-Principal Academic and Dean
Professor Heinz-Bernhard Kraatz: Vice-Principal Research
Desmond Pouyat: Dean of Student Affairs

Office of the Dean and Vice-Principal, Academic:
Professor Maydianne Andrade: Vice-Dean Faculty Affairs, Equity and Success
Professor James Donaldson: Vice-Dean Recruitment, Enrolment and Student Success
Professor Katherine Larson: Vice-Dean Teaching, Learning and Undergraduate Programs
Professor Hugh Laurence: Acting Associate Dean, Undergraduate Programs & Curriculum (July 1, 2020 to June 30, 2021)
Professor Karen McCrindle: Associate Dean, Teaching and Learning
Professor Mary Silcox: Vice-Dean Graduate and Postdoctoral Studies
Professor Christine Berkowitz: Dean's Designate for Administration of the *Code of Behaviour on Academic Matters*
Professor Nick Cheng: Dean's Designate for Administration of the *Code of Behaviour on Academic Matters*
Professor John Hannigan: Dean's Designate for *Administration of the Code of Behaviour on Academic Matters*
Zahra Bhanji: Director, Office of the Vice-Principal Academic and Dean
Curtis Cole: Registrar and Assistant Dean Enrolment Management
Angela Hamilton: Chief Librarian

3.2 Academic Units and Programs

Notes:

1. Listed programs are currently being offered.
2. Where [**+Co-op**] appears, a Co-operative analog program is also offered.
3. UTSC offers Double Degree programs. For more information see the Double Degree Programs section of this Calendar.
4. UTSC offers undergraduate/graduate Combined Degree Programs. For more information see the Combined Degree Programs section of this *Calendar*.

New Undergraduate Programs/Offerings in 2020-21:

- Major program in Creative Writing (HBA)
- Streams introduced to the Specialist in Neuroscience:
    - Systems/Behavioural

    - Cellular/Molecular
    - Cognitive
- Double Degree: UTSC, Honours Bachelor of Arts, Specialist program in English/ UTSC Honours Bachelor of Science, Specialist program in Psychology
- Combined Degree Programs for the Bachelor of Business Administration (Specialist and Specialist Co-op programs in Management and Accounting) with the Master of Accounting and Finance

*New Post-Graduate Offerings in 2020-*21:

- Certificate in Evolutionary Anatomy (pending approval)

Department of Anthropology:
Chair: Professor S. Bamford

The Department of Anthropology offers a Post-graduate Certificate in Evolutionary Anatomy (pending approval)

Programs/Offerings	Calendar Section
• Evolutionary Anthropology, Specialist, HBSc • Socio-Cultural Anthropology, Specialist HBA • Evolutionary Anthropology, Major, HBSc • Socio-Cultural Anthropology, Major, HBA • Anthropology, Minor (Arts) • Certificate in Bioarchaeology	Anthropology *Course code prefix: ANT

Department of Arts, Culture and Media:
Chair: Professor B. Freeman

The Department of Arts, Culture and Media also offers courses in the following discipline areas:
*Arts, Culture and Media - Course code prefix: ACM

Programs/Offerings	Calendar Section
• Art History and Visual Culture, Major, HBA • Art History and Visual Culture, Minor (Arts)	Art History and Visual Culture *Course code prefix: VPH

• Arts Management, Specialist, HBA
  o Standard Stream
  o Field Placement Stream
• Arts and Media Management, Major, HBA
	Arts Management
	*Course code prefix: VPA

• Curatorial Studies, Minor (Arts)	Curatorial Studies *Course code prefix: CRT

Programs/Offerings	Calendar Section
• Journalism (Joint program with Centennial College), Specialist, HBA	Journalism *Course code prefix: JOU

• Media, Journalism and Digital Cultures, Major, HBA
  o Media Studies Stream
  o Journalism Studies Stream
• Media Studies, Minor (Arts)
	Media Studies
	*Course code prefix: MDS

• Music and Culture, Major, HBA • Music and Culture, Minor (Arts)	Music and Culture *Course code prefix: VPM
• New Media Studies (Joint program with Centennial College), Major, HBA	New Media Studies *Course code prefix: NME
• Studio Art, Specialist, HBA • Studio Art, Major, HBA • Studio Art, Minor (Arts)	Studio Art *Course code prefix: VPS
• Theatre and Performance, Major, HBA • Theatre and Performance, Minor (Arts)	Theatre and Performance Studies *Course code prefix: THR

Department of Biological Sciences:
Chair: Professor A. Mason

Programs/Offerings	Calendar Section
• Conservation and Biodiversity, Specialist, HBSc • Human Biology, Specialist, HBSc • Integrative Biology, Specialist, HBSc • Molecular Biology and Biotechnology, Specialist, HBSc [**+Co-op**] • Biology, Major, HBSc • Conservation and Biodiversity, Major, HBSc • Human Biology, Major, HBSc • Molecular Biology, Immunology and Disease, Major, HBSc • Plant Biology, Major, HBSc • Biology, Minor (Science) • Certificate in Biological Sciences Research Excellence	Biological Sciences *Course code prefix: BIO

Programs/Offerings	Calendar Section
• Paramedicine (Joint program with Centennial College), Specialist, HBSc	Paramedicine *Course code prefix: PMD

Department of Computer and Mathematical Sciences:
Chair: Professor M. Molloy

The Department of Computer and Mathematical Sciences, in partnership with the Department of Management, also offers the following Double Degree programs:

- Double Degree: BBA, Specialist program in Management and Finance/Honours BSc, Specialist program in Statistics, Quantitative Finance Stream
- Double Degree: BBA, Specialist (Co-operative) program in Management and Finance/Honours BSc, Specialist (Co-operative) program in Statistics, Quantitative Finance Stream

Programs/Offerings	Calendar Section
• Computer Science, Specialist, HBSc o Comprehensive Stream [**+Co-op**] o Software Engineering Stream [**+Co-op**] o Information Systems Stream [**+Co-op**] o Entrepreneurship Stream [**+Co-op**] • Computer Science, Major, HBSc [**+Co-op**] • Computer Science, Minor (Science)	Computer Science *Course code prefix: CSC
• Mathematics, Specialist, HBSc o Comprehensive Stream [**+Co-op**] o Statistics Stream [**+Co-op**] o Teaching Stream [**+Co-op**] • Mathematics, Major, HBSc [**+Co-op**]	Mathematics *Course code prefix: MAT
• Statistics, Specialist, HBSc o Quantitative Finance Stream [**+Co-op**] o Statistical Machine Learning and Data Science Stream [**+Co-op**] • Statistics, Major, HBSc [**+Co-op**] • Applied Statistics, Minor (Science) • Statistics, Minor (Science)	Statistics *Course code prefixes: ACT and STA

Centre for Critical Development Studies:
Director: Professor P. Kingston

Programs/Offerings	Calendar Section
• African Studies, Minor (Arts)	African Studies *Course code prefix: AFS
• International Development Studies, Specialist, HBSc [**+Co-op**] • International Development Studies, Specialist, HBA [**+Co-op**] • International Development Studies, Major, HBA • International Development Studies, Minor (Arts) • Certificate in Global Development, Environment and Health (U of T Global Scholar)	International Development Studies *Course code prefix: IDS

Department of English:
Chair: Professor N. Kortenaar

The Department of English, in partnership with the Department of Psychology, offers the following Double Degree program:

- Double Degree: Honours BA, Specialist program in English/ Honours BSc, Specialist program in Psychology

Programs/Offerings	Calendar Section
• English, Specialist, HBA [**+Co-op**] • English, Major, HBA [**+Co-op**] • English Literature, Minor (Arts) • Creative Writing, Major, HBA • Creative Writing, Minor (Arts) • Literature and Film Studies, Minor (Arts)	English *Course code prefix: ENG

Department of Language Studies (previously called the Centre for French and Linguistics):
Chair: Professor J. Ndayiragije

Programs/Offerings	Calendar Section
• French, Specialist, HBA [**+Co-op**] • French, Major, HBA [**+Co-op**] • French, Minor (Arts)	French *Course code prefix: FRE

Programs/Offerings	Calendar Section
• English and Chinese Translation, Minor (Arts)	Languages *Course code prefixes: ECT and LGG
• Linguistics, Specialist, HBA [**+Co-op**] • Psycholinguistics, Specialist, HBA [**+Co-op**] • Linguistics, Major, HBA [**+Co-op**] • Linguistics, Minor (Arts)	Linguistics *Course code prefixes: LIN and PLI

Department of Historical and Cultural Studies:
Chair: Professor N. Rothman

The Department of Historical and Cultural Studies also offers courses in the following discipline areas:
*Historical and Cultural Studies - Course code prefix: HCS
*Religion - Course code prefix: RLG

Programs/Offerings	Calendar Section
• Classical Studies, Minor (Arts)	Classical Studies Course code prefix: CLA
• Food Studies, Minor (Arts)	Food Studies *Course code prefix: FST
• Global Asia Studies, Specialist, HBA • Global Asia Studies, Major, HBA • Global Asia Studies, Minor (Arts)	Global Asia Studies *Course code prefix: GAS
• History, Specialist, HBA [**+Co-op**] • History, Major, HBA [**+Co-op**] • History, Minor (Arts)	History *Course code prefix: HIS
• Women's and Gender Studies, Major, HBA [**+Co-op**] • Women's and Gender Studies, Minor (Arts)	Women's and Gender Studies *Course code prefix: WST

Department of Human Geography:
Chair: Professor T. Kepe

The Department of Human Geography also offers courses in the following discipline areas:
*Diaspora and Transnational Studies - Course code prefix: DTS

Programs/Offerings	Calendar Section
• City Studies, Specialist, HBA • City Studies, Major, HBA [**+Co-op**] • City Studies, Minor (Arts)	City Studies *Course code prefix: CIT
• Human Geography, Specialist, HBA • Human Geography, Major, HBA • Physical and Human Geography, Major, HBA • Geographic Information Science (GIS), Minor (Arts) • Human Geography, Minor (Arts)	Geography *Course code prefix: GGR
• Urban Public Policy and Governance, Minor (Arts)	Public Policy

Department of Health and Society (previously called the Interdisciplinary Centre for Health and Society):
Chair: Professor J. Fields

Programs/Offerings	Calendar Section
• Health Studies, Population Health, Major, HBSc [**+Co-op**] • Health Studies, Health Policy, Major, HBA [**+Co-op**] • Health Humanities, Minor (Arts)	Health Studies *Course code prefix: HLT

Department of Management:
Chair: Professor A. Franco

The Department of Management, in partnership with the Department of Computer and Mathematical Sciences, also offers the following Double Degrees programs:

- Double Degree: BBA, Specialist Program in Management and Finance/Honours BSc, Specialist Program in Statistics, Quantitative Finance Stream
- Double Degree: BBA, Specialist (Co-operative) Program in Management and Finance/Honours BSc, Specialist (Co-operative) Program in Statistics, Quantitative Finance Stream

The Department of Management offers a Post-graduate Certificate in Business

Programs/Offerings	Calendar Section
• Economics for Management Studies, Major, HBA • Economics for Management Studies, Minor (Arts)	Economics for Management Studies *Course code prefix: MGE
• Economics for Management Studies, Specialist, BBA [**+Co-op**] • Management, Specialist, BBA [**+Co-op**] • Management and Accounting, Specialist, BBA [**+Co-op**] • Management and Finance, Specialist, BBA [**+Co-op**] • Management and Human Resources, Specialist, BBA [**+Co-op**] • Management and Information Technology, Specialist, BBA [**+Co-op**] • Management and International Business, Specialist **Co-operative**, BBA • Management and Marketing, Specialist, BBA [**+Co-op**] • Strategic Management, Specialist, BBA o Management Strategy Stream [**+Co-op**] o Entrepreneurship Stream [**+Co-op**]	Management *Course code prefixes: MGA, MGF, MGH, MGI, MGM, MGO, MGS, and MGT

Department of Philosophy:
Chair: Professor S. Sedivy

Programs/Offerings	Calendar Section
• Philosophy, Specialist, HBA [**+Co-op**] • Philosophy, Major, HBA [**+Co-op**] • Biomedical Ethics, Minor (Arts) • Philosophy, Minor (Arts)	Philosophy *Course code prefix: PHL

Department of Physical and Environmental Sciences:
Chair: Professor G. Arhonditsis

Programs/Offerings	Calendar Section
• Astronomy and Astrophysics, Minor (Science)	Astronomy *Course code prefix: AST
• Biological Chemistry, Specialist, HBSc [**+Co-op**] • Chemistry, Specialist, HBSc [**+Co-op**] • Environmental Chemistry, Specialist, HBSc [**+Co-op**]* • Biochemistry, Major, HBSc [**+Co-op**] • Chemistry, Major, HBSc [**+Co-op**]	Chemistry *Course code prefix: CHM
• Environmental Biology, Specialist, HBSc [**+Co-op**] • Environmental Geoscience, Specialist, HBSc [**+Co-op**] • Environmental Science, Major, HBSc [**+Co-op**] • Environmental Science, Minor (Science) • Natural Sciences and Environmental Management, Minor (Science) *Programs in Environmental Chemistry are in the Chemistry section of the *Calendar.*	Environmental Science *Course code prefix: EES
• Environmental Studies, Major, HBA **Shared with Dept. of Political Science	Environmental Studies *Course code prefix: EST
• Physical and Mathematical Sciences, Specialist, HBSc • Physical Sciences, Major, HBSc	Physical Sciences *Course code prefix: PSC
• Environmental Physics, Specialist, HBSc [**+Co-op**]* • Physics and Astrophysics, Specialist, HBSc • Physics and Astrophysics, Major, HBSc *Programs in Environmental Physics are in the Physics and Astrophysics section of the *Calendar.*	Physics and Astrophysics Course code prefix: PHY

Department of Political Science:
Chair: Professor M. Kohn

The Department of Political Science also offers courses in the following discipline areas:

*International Studies - Course code prefix: IST

Programs/Offerings	Calendar Section
• Political Science, Specialist, HBA • Political Science, Major, HBA • Political Science, Minor (Arts) • Public Law, Minor (Arts)	Political Science *Course code prefix: POL
• Public Policy, Major, HBA [**+Co-op**]	Public Policy *Course code prefix: PPG

Department of Psychology:
Chair: Professor S. Erb

The Department of Psychology, in partnership with the Department of English, offers the following Double Degree program:

- Double Degree: Honours BA, Specialist Program in English/ Honours BSc, Specialist Program in Psychology

Programs/Offerings	Calendar Section

• Neuroscience, Specialist, HBSc [**+Co-op**]
  o Systems/Behavioural Stream
  o Cellular/Molecular Stream
  o Cognitive Stream
• Neuroscience, Major, HBSc
 	
**Shared with Dept. of Biological Sciences
	Neuroscience
	*Course code prefix: NRO

• Mental Health Studies, Specialist, HBSc [**+Co-op**] • Psychology, Specialist, HBSc [**+Co-op**] • Mental Health Studies, Major, HBSc • Psychology, Major, HBSc • Psychology, Minor (Science)	Psychology *Course code prefix: PSY

Department of Sociology:
Chair: Professor P. Landolt

The Department of Sociology administers courses in the following discipline areas:
*Concurrent Teacher Education - Course code prefix: CTE

Programs/Offerings	Calendar Section
• Sociology, Specialist, HBA • Sociology, Major, HBA • Sociology, Minor (Arts) • Culture, Creativity, and Cities, Minor (Arts) • Critical Migration Studies*, Minor (Arts) *formerly known as the Minor in Migration and Ethnic Diversity	Sociology *Course code prefix: SOC

Centre for Teaching and Learning:
Director: Professor K. McCrindle

The Centre for Teaching and Learning offers courses in the following discipline areas:
*Teaching and Learning - Course code prefix: CTL

3.3 Programs With Suspended Enrolments

Enrolment into the following programs has been suspended indefinitely. Students already enrolled in these programs must refer to the Calendar active at the time they first chose the program as a Subject POSt.

Suspended effective the 2019-20 academic year:

- Stream in Health Informatics, Specialist/Specialist Co-op Program in Computer Science

Suspended effective the 2014-15 academic year:

- Major Program in Diaspora and Transnational Studies (Arts)
- Minor Program in Diaspora and Transnational Studies (Arts)

Suspended effective the 2013-14 academic year:

- Specialist (Co-operative) Program in Arts Management (Arts)
- Minor Program in Health Studies (Arts)
- Minor Program in Religion (Arts)

Suspended effective the 2010-11 academic year:

- Major Program in International Development Studies (Science)
- Major Program in International Studies (Arts)

3.4 Academic Awards and Scholarships

UTSC seeks to recognize the excellent academic achievement of students registered in undergraduate degree programs. There are two broad categories of awards:

1. Admission Awards:
Are available to new students entering UTSC directly from secondary school. There are two types of awards: automatic consideration; or, application or nomination based. UTSC allocates Admission Awards to students entering the first year directly from secondary school. In considering students for scholarships, the University reserves the right to give preference to students whose marks are the result of a single attempt at each course.

2. In-course Awards:
Are available to students continuing their studies at UTSC. There are two types of awards: automatic consideration; or, application or nomination based. In-course Awards are given to students who have completed their First, Second or Third year of study towards a Bachelor's degree. For award purposes, a year of study is defined as the completion of 5.0 credits. In order to give more students an opportunity to be recognized for excellent academic achievement UTSC Awards policy permits a student to hold only one major award.

A general condition for holding an Admission or In-course award is that the student must register at UTSC in the following academic year with degree status. Students who have been awarded a scholarship, which is based on enrolment in a particular program of study, must continue in that program to receive the award. UTSC reserves the right to not award a scholarship, if, in a particular year, the academic achievement of the candidate is not of a high standard. To be considered for any award, a student must be enrolled in or graduating from a Bachelor's program.

University of Toronto Scarborough Dean's List:
The Dean's List is published annually in the Fall. All students who have achieved a cumulative grade point average (CGPA) of 3.5 or better in their most recent year of study will be considered as long as they have completed a minimum of 1.5 credits during the previous Fall, Winter, and Summer sessions.

Graduation Awards:
Graduation awards are given at the time of graduation. They include medals and prizes awarded for outstanding achievement during the final year of undergraduate study.

Students who graduate at the Fall Convocation are considered for graduation awards in the following year together with students who are graduating at the Spring Convocation.

Recognition of Exceptional Academic Achievement:
Graduating students who have completed at least 10.0 credits while registered at UTSC will be considered for the following recognition:

1. High Distinction:
Students who graduate with a **CGPA of 3.50** or better are recognized as graduates "With High Distinction." This achievement is noted on the diploma and transcript.

2. Distinction:
Students who graduate with a **CGPA between 3.20 and 3.49** are recognized as graduates "With Distinction." This achievement is noted on the diploma and transcript.

Other students with a CGPA of 3.20 or better will be considered on an individual basis.

For complete information on awards and scholarships, please go to the Office of the Registrar website, and under the "Finances" tab, go to the "Scholarships and Awards" page.

4. Academic Integrity

4.1 University Policy

The University of Toronto places a strong emphasis on integrity in teaching and research. The University's policies and procedures that deal with cases of cheating, plagiarism and other forms of academic misconduct, are designed to protect the integrity of the institution and to maintain a community where competition is fair. Allegations of an academic offence are dealt with formally and seriously, and penalties can be severe if it is determined a student or faculty member has committed an academic offence.

All of the policies and procedures surrounding academic misconduct are dealt with in the *Code of Behaviour on Academic Matters* (2019); non-academic behaviour is governed by the *Code of Student Conduct* (2019). The preamble of the Code of Behaviour states:

> The concern of the Code of Behaviour on Academic Matters is with the responsibilities of all parties to the integrity of the teaching and learning relationship. Honesty and fairness must inform this relationship, whose basis remains one of mutual respect for the aims of education and for those ethical principles which must characterize the pursuit and transmission of knowledge in the University.
>
> What distinguishes the University from other centres of research is the central place in which the relationship between teaching and learning holds. It is by virtue of this relationship that the University fulfills an essential part of its traditional mandate from society, and, indeed, from history: to be an expression of, and by so doing to encourage, a habit of mind which is discriminating at the same time as it remains curious, which is at once equitable and audacious, valuing openness, honesty and courtesy before any private interests.
>
> This mandate is more than a mere pious hope. It represents a condition necessary for free enquiry, which is the University's lifeblood. Its fulfillment depends upon the well being of that relationship whose parties define one another's roles as teacher and student, based upon differences in expertise, knowledge and experience, though bonded by respect, by a common passion for truth and by mutual responsibility to those principles and ideals that continue to characterize the University.
>
> This Code is concerned, then, with the responsibilities of faculty members and students, not as they belong to administrative or professional or social groups, but as they co-operate in all phases of the teaching and learning relationship.
>
> Such co-operation is threatened when teacher or student forsakes respect for the other--and for others involved in learning--in favour of self-interest, when the truth becomes a hostage of expediency. On behalf of teacher and student and in fulfillment of its own principles and ideals, the University has a responsibility to ensure that academic achievement is not obscured or undermined by cheating or misrepresentation, that the evaluative process meets the highest standards of fairness and honesty, and that malevolent or even mischievous disruption is not allowed to threaten the educational process.

These are areas in which teacher and student necessarily share a common interest as well as common responsibilities.

4.2 Academic Offences

Academic offences are defined in Section B.i.1 of the *Code*, and include:

- Plagiarism – using the words or ideas of another person without citing the sources;
- Unauthorized aids – using unauthorized aids such as notes or calculators, which could be considered cheating, on tests and exams;
- Unauthorized assistance – having someone else do the work for you;
- Forgery or falsification – making a false statement, presenting a false document or signing someone else's name on a document required by the University;
- Personation – having someone else write an exam for you, or writing an exam for someone else;
- Concocting – using false data, or providing false references;
- Self-plagiarism – submitting work for credit when you have submitted it in another course.

UTSC students and faculty are responsible for ensuring the integrity of their work, and for understanding what constitutes an academic offence. Students can find help in avoiding academic offences in the UTSC Library, the Writing Centre, English Language Development Support, and the Academic Advising & Career Centre. International students will also find help in the International Student Centre.

All members of the University are expected to respect the rules associated with academic integrity and the values they protect. For more information, visit the Office of the Vice-Principal Academic and Dean website, and click on "Academic Integrity" under the "Students" and "Faculty" tabs.

5. Academic Regulations

5.1 University of Toronto Policies

The University of Toronto has numerous policies that are approved by its Governing Council, which apply to all students. It is in all students' best interest to be familiar with these policies as the University will assume they have done so. All of the University's policies can be accessed through the Governing Council website, but those of particular importance to students include:

- *Guidelines Concerning Access to Official Student Academic Records* (2008)
- *Code of Behaviour on Academic Matters* (2019)
- *Code of Student Conduct* (2019)
- *University Assessment and Grading Practices Policy* (2012)
- *Policy on Official Correspondence with Students* (2006)

More information about academic policies can be found on the Office of the Vice-President and Provost website.

As members of the wider University community, UTSC students assume certain responsibilities, and are guaranteed certain rights and freedoms. The academic rules, regulations and policies of the wider University, as well as those particular to UTSC, are identified in this *Calendar*. UTSC students are subject to all of these rules, regulations and policies, which may be amended from time to time.

5.2 Student Identification

Student Numbers:
Every student at the University of Toronto is assigned a unique student number that corresponds with their personal University record. This number is confidential, and the University assumes and expects every student to protect the confidentiality of their student number.

UTORid:
Each student is automatically issued a JOINid, which becomes their UTORid after they accept their offer of admission, and is activated once they obtain their TCard. A valid UTORid grants access to online University of Toronto services such as ACORN, the University of Toronto email address (UTMail+), the wireless network, the University Library System, and UT Portal. Students must activate their individual UTORid, and select a secure password of their choice in order to use these services.

To prevent shared access to internal or external communications and student records by a third party, including family and friends, students should not share their UTORid and/or password with anyone.

Student Cards (TCards):
All registered students are required to have a functional and up-to-date University of Toronto student card (TCard) as their primary form of identification to gain access to University resources and services, both in-person and online.

A TCard must be presented in-person to write tests and final exams, request transactions at the Office of the Registrar, and use the Library, computer labs, and Athletic facilities, as well as for other

campus service providers. Students may be required to present their TCard upon request by the University or its service providers.

The TCard and TCard photo remain the property of the University of Toronto, and may not be used for any illegal, improper, or unlawful purpose by students. It is every students' responsibility to ensure the safekeeping of their TCard, and they must not lend, or permit others to use, their TCard for any purpose. Altering, falsifying, misuse of, lending, or selling a TCard is prohibited and may be subject to sanctions, pursuant to the University's regulations, policies and procedures, including the *Code of Student Conduct* (2019) and the *Code of Behaviour on Academic Matters* (2019), and may also be subject to civil or criminal proceedings.

A TCard is to be kept for the duration of a student's active registration, and is to be used only by the person to whom it is issued. Students cannot hold more than one TCard at any given time. If a student is found in possession of more than one TCard, they may keep the TCard with the highest barcode number, and are expected to surrender any previous TCards voluntarily, or by request, to the TCard Office or the Office of the Registrar.

Lost or stolen TCards must be immediately reported to the TCard Office and any meal plan provider. Students must replace lost, stolen, or damaged TCards at the TCard Office; replacement of TCards is subject to a replacement fee.

5.3 General Academic Regulations

This section of the *Calendar* describes general academic requirements students must meet, and procedures they must follow. Additional, and more specific, academic requirements and procedures are described in relevant sections of the *Calendar*; for example, requirements and regulations related to degrees are described in the Understanding Degrees section (6A) of the *Calendar*.

Class Attendance:
Class attendance is an important aspect of university studies. Although class attendance is not mandatory, students who “skip” class place themselves at a distinct disadvantage, and will not receive any special consideration on the grounds of non-attendance. Students who are unable to attend a class during the first two weeks of the session are strongly advised to wait until a future session before enrolling. New students who decide to wait until a future session should contact the Admissions and Student Recruitment Office to arrange a formal deferment of their Offer of Admission.

Copyright in Instructional Settings:
Students who want to record (whether audio, video or tape), photograph, or otherwise reproduce lecture presentations, course notes or other materials provided by instructors, must obtain the instructor's written consent beforehand. Otherwise, all such reproduction is viewed as 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. Where permission has been granted by the instructor, the reproduced materials are for the student's individual and private use only, and cannot be used for further reproduction, publication, online posting, or sale.

Students in Debt to the University:
If, at the end of the academic session, all debt to the University has not been paid, UTSC imposes the following academic sanctions until the debt is cleared:

- Transcripts are not issued;

- Diplomas are not released, nor is oral or written confirmation of degree and program completion provided. However, indebted graduands will be allowed to participate in the graduation ceremony and have their names appear in the Convocation program;
- Further studies are denied;
- Written certification of degree and program status is not provided;
- Confirmation of enrolment status is not provided; and/or
- Registration is refused to re-enrolling students (i.e. returning after any suspension or after an absence of twelve months or more).

The following debts are taken into consideration when applying sanctions:

- Tuition fees;
- Residence fees and other residence charges;
- Library fines;
- Loans made by colleges, faculties or the University;
- Health service accounts;
- Unreturned or damaged instruments, materials and equipment; and/or
- Fines levied under the *Code of Student Conduct* (2019).

5.4 Academic Regulations Related to Final Examinations*

*Regulations for mid-term exams and tests are determined by the individual academic units and may differ from those for final examinations. Students are advised to consult their course syllabus, instructor, or the academic unit offering the course for regulations related to mid-terms.

Final examinations are held at the end of each session (Fall, Winter and Summer). Students who make personal commitments during the examination period do so at their own risk, and are warned they will not receive any special consideration, nor will special arrangements be made to accommodate them.

As soon as they are finalized, examination schedules are posted on the Office of the Registrar website under the "Examinations" tab. The date of posting is normally no later than:

- End of May for the Summer "F" examination period;
- End of June for the Summer "S" and "Y" examination period;
- End of October for the Fall examination period; and
- End of February for the Winter examination period.

Information regarding dates and times of final examinations will not be given by telephone.

Students are responsible for reading the examination schedule carefully and appearing at their exams on the date, and at the time, specified. Examinations can be scheduled at any time of day during the examination period: students taking daytime courses may be required to write evening examinations, and students taking evening courses may be required to write daytime examinations. In addition, final examinations (including deferred examinations) may be held on any day of the week, including weekend days.

Examination room procedures for students can be found on the Office of the Registrar website under the "Examinations - Code of Conduct" tab.

Final Examination Timetable Conflicts:
1. Students scheduled to write two examinations at the same time should report their conflicts through eService: arrangements will normally be made for students to write both examinations on the same day, with a supervised break:

- Where the conflict involves a course offered by FAS or UTM, arrangements will normally be made for both examinations to be written at UTSC.
- Requests for such arrangements must be made no later than two full weeks before the first day of examinations in each session: requests will not be considered after that time.

2. Students may request special arrangements if they are scheduled to write examinations in three consecutive time slots as follows:

- 9:00am, 2:00pm, 7:00pm (in the same day)
- 2:00pm, 7:00pm (in the same day), 9:00am (the following day)
- 7:00pm, followed by 9:00am, 2:00pm (the following day)

No other exam sequence is considered to be three consecutive time slots. Requests for special arrangements must be made through eService no later than two full weeks before the first day of examinations in each session: requests will not be considered after that time. This type of accommodation does not apply to students writing deferred examinations.

Accommodation for Religious Observances:
It is the policy of the University (*Policy on Scheduling of Classes and Examinations and Other Accommodations for Religious Observances*, 2005) to arrange reasonable accommodation of the needs of students who observe religious holy days other than those already accommodated by ordinary scheduling and statutory holidays. If the date of a final examination falls on a holy day observed by a student, the student should submit, through eService, a request for accommodation no later than two full weeks before the commencement of examinations. This will normally be granted.

Procedure for Rescheduling Final Examinations Cancelled Due to Winter Weather:
If the campus is closed because of inclement weather for a day or part of a day during the Fall examination period, all missed examinations will be rescheduled on the following Sunday within the same examination period, or on the first Saturday following the start of classes of the Winter session. For more information, check under the "Examinations" tab on the Office of the Registrar website.

Student Identification at Final Examinations:
Students are required to identify themselves at examinations by means of their TCard. **It is in every student's best interest to ensure they have obtained a TCard well in advance of the day of their first examination since students who do not have this card risk not being permitted to write their exam.**

Use of Calculators in Tests and Final Examinations:
Instructors will let their students know whether the use of calculators is permissible during tests and examinations and, if so, which models are approved. The use of an unauthorized calculator will be treated as an academic offence, and may result in serious penalties.

Materials and Personal Belongings in the Exam Room:

- **It is an academic offence for students to bring unauthorized materials and/or electronic devices into an exam whether they are used or not.**

- Students who bring any unauthorized materials or electronic devices into an examination room, or assist, or obtain assistance from other students or from an unauthorized source, are liable to penalties under the *Code of Behaviour on Academic Matters* (2019), including the loss of academic credit for the course, suspension, or expulsion from the University.
- No materials or electronic devices may be used at an examination except those authorized by the instructor. If the instructor has permitted the use of any aids, this will be explicitly stated on the front page of the exam.
- Bags and books should, whenever possible, be left in students' lockers. The University is not responsible for personal property that is left in the exam room.
- Paper coffee cups, plastic water bottles with labels, pencil cases, smartwatches, and smart/cell phones are not permitted on exam room desks/tables. Students wearing hats or peaked caps will be asked to remove them prior to sitting down to write their exams.
- Bags and books are to be deposited in areas designated by the instructor/invigilator and are not to be taken to the examination table.
- Students must place their valuables, including all smartwatches, smart/cell phones, tablets and laptop computers, in the re-sealable plastic bag provided for this purpose, and place the bag, closed, on the floor underneath their chair. **Use of the plastic bags is mandatory since possession of an unauthorized electronic device is an academic offence. Students who are not automatically provided with a plastic bag, should request one.** At the conclusion of the exam, students should return the re-sealable bag so that it can be reused.

Requesting Copies of Final Examinations:
Within 90 days of the relevant examination period, students may request a copy of their final exam. Students must submit this request through eService. Where copying of the final exam is permitted, students will receive a photocopy of their exam. Where photocopying of the final exam is not permitted, students will be given an opportunity to view their exam under the supervision of a staff member. A non-refundable fee is charged. After 90 days, examinations are no longer available.

5.5 Exceptions to Academic Regulations: Special Consideration, Petitions and Appeals

From time to time students may need to ask for special consideration in their academic work or for exceptions to be made to academic regulations. Such requests normally arise as a result of their being affected by something outside their control, such as illness, accident or the death of a family member. Very occasionally students may find themselves in a situation not foreseen by the regulations, or feel they have been unreasonably affected by a deviation from University Policy or approved practice. If you find yourself in such a situation, it is important you follow identified procedures and meet all published deadlines.

Students should seek special consideration **only** when there are circumstances that are truly beyond their control, which they could not reasonably have anticipated or overcome, and which have seriously affected their studies.

Students who take courses at another campus, should refer to the FAS and/or UTM *Calendars* for regulations regarding their courses. Students are responsible for observing the regulations governing any courses they take on other campuses. However, all UTSC students must adhere to UTSC deadlines for petitions and appeals, irrespective of the campus on which the course is taken.

For complete information on special consideration, including petitions and appeals, visit the Office of the Registrar website under the Petitions tab.

Exceptions Regarding Submission of Term Work:
Students should speak with their instructor as soon as possible to request special consideration, if:

- They are unable to write a term test;
- Their performance on a test is adversely affected by illness or other extenuating circumstances; or
- They cannot submit term work by the instructor's deadlines.

In these instances, special consideration will be granted at the instructor's discretion. If students wish to appeal the instructor's decision they must speak with, or write to, the Chair or Director of the academic unit offering the course.

If it is close to the end of the session and a student needs an extension of time to complete term work or to write a term test, the course instructor, jointly with the Chair/Director of the academic unit, has the authority to grant an extension for up to a week after the last date to submit term work. If students need more than a week's extension for term work, they must submit a formal petition.

Deferring Final examinations:
1. Students who miss a final examination can petition through eService for a deferred exam, and submit supporting documentation, within 5 business days of the missed examination. Complete information regarding how to submit a petition is available under the Petitions tab on the Office of the Registrar website. Students seeking to submit a petition to defer an exam should bear the following in mind:

- Petitions will be considered only for cases of illness or extreme emergency at the time of an examination. Petitions based on vacation, employment, or personal plans will not be considered.
- Petitions based on medical grounds must be supported by an original Verification of Student Illness or Injury form stating both that the student was examined and diagnosed at the time of illness and was examined on the day of the exam or the next day. A statement from the physician that merely confirms a report of illness and/or disability made by the student will not be accepted.
- Petitions based on other than medical grounds must provide supporting documentation.
- All supporting documentation must be submitted within 5 business days from the date of the missed examination. Students who are graduating in June or November must submit their supporting documentation within 3 business days from the date of the missed examination. Documents must be in their original form; photocopies or faxes will not be accepted.
- Late petitions will not be accepted.

2. Students who choose to write an examination may not petition to rewrite it, except in circumstances such as a significant illness that suddenly manifests itself during an examination. In this instance, the claim of illness requires both corroborations from the examination invigilator **and** documentation from a health care professional.

3. Deferred examinations for all UTSC courses are held as follows:

- Exams deferred from the June Summer session are held in the immediately following August final examination period, or the study period that precedes it;
- Exams deferred from the August Summer session are held in the immediately following Fall session, during the Reading Week in October;
- Exams deferred from the Fall session are held in the immediately following Winter session during the Reading Week in February; and

- Exams deferred from the Winter session are held in the immediately following Summer session in the August final examination period, or the study period that precedes it.

4. Students must pay a fee by the given deadline to write any UTSC deferred examination. The payment deadline and instructions are indicated in the petition decision message in eService. Failure to pay the fee will result in a loss of privilege to sit the examination.

5. Students writing deferred examinations are strongly advised not to exceed a credit load of 2.5 credits in the session leading up to the deferred examinations.

6. Students are given only one opportunity to sit a deferred exam and are expected to be available for the entire deferred examination period.

7. Students who miss a deferred examination will receive a mark of zero for the examination. Only under exceptional circumstances (e.g., hospitalization or severe personal emergency), which are supported by strong and compelling evidence, will a petition for a second deferral of the examination be considered. After a third missed deferred exam, students will not be permitted to write the exam and will receive a WDR for the course.

8. Under truly exceptional circumstances, students who are unavoidably outside the Toronto area during the deferred examination period may petition for permission to write their exam at an outside centre. The petition must detail the reasons for the request, and must be submitted at least three weeks prior to the beginning of the deferred examination period. Late requests cannot be accommodated, and fees in addition to the fee to write a deferred examination will apply.

Notes:

- Deferring a final examination may affect students' ability to gain access to courses and/or limited enrolment programs since they may not enrol in any course listed as a prerequisite in the course for which they have deferred the examination.
- Deferred examinations in the other arts and science divisions of the University may be scheduled at times other than those for UTSC.

Disagreements Regarding Marks and Grades:
1. Grades in Term Work
Students who think that a mark on a term test or assignment has been calculated incorrectly should ask the course instructor to check the mark as soon as possible, and certainly before the end of the session. Students who wish to appeal an instructor's decision about the grading of term work should speak with, or write to, the Chair/Director of the academic unit offering the course.

- Students who believe a mark should be reviewed on term work returned after the end of term, and after the instructor has submitted grades for the course, may submit a formal petition within 90 days of the relevant examination period.

2. Final Grades
Students who think there is an error in the calculation of their final grade can, within 90 days of the relevant examination period, request a clerical check through eService. A clerical check is arithmetical only; final exams will not be re-read or re-marked. Students are cautioned that a fee is charged for this service. If an error is discovered which results in a change of the final letter grade, the fee will be refunded. **If the clerical check results in a grade change, the amended grade will stand whether it is higher or lower.**

- Students should be aware that before submitting any failing grade, instructors are required to recheck the calculation of term and final marks.
- If, after reviewing a copy of a final examination, a student wishes to request it be re-read, s/he must submit a petition for re-reading within 90 days of the relevant examination period. When approved by petition, re-reading is arranged by the academic unit offering the course, which also authorizes any change in grade. Normally the re-reading is done by the course instructor, unless the student makes a convincing argument that the work should be re-read by another faculty member. Claims of prejudice must be supported in detail and wherever possible confirmed by a third party. Whenever a grade is changed, the amended grade will stand whether it is higher or lower.

3. Violations of the *University Assessment and Grading Practices Policy*

- Students who believe an instructor has violated the *University Assessment and Grading Practices Policy* (2012) should discuss the complaint with the instructor. If the violation relates to the announced schedule of assignments or the marking scheme, students must do this no later than the fourth week of classes. If it relates to changes in or divergence from the announced marking scheme, students must do this before the end of the final examination period.
- If discussion with the instructor does not result in a satisfactory solution, students may appeal the instructor's decision to the Chair/Director of the academic unit offering the course. If this appeal does not resolve the problem, students may appeal to the Vice-Dean, Undergraduate (until June 30, 2020) or to the Associate Dean Undergraduate Programs and Curriculum (effective July 1, 2020).
- Students who wish to withdraw from a course after the last day to withdraw without academic penalty on the grounds of a violation of the *University Assessment and Grading Practices Policy* must submit a formal petition. If the petition is granted because a violation of the policy has occurred, no record of registration in the course will appear on the transcript. Students cannot petition to withdraw from a course on the grounds that no work was returned before the last day to withdraw without academic penalty if this is the result of their having been given an extension to complete the work for reasons relating to the individual student and not the rest of the class.

Petitions:
The University is governed by a series of rules and regulations to ensure that all students are treated fairly and equitably. A petition is a formal request made to the University asking to be exempted from an academic regulation or policy. Students must have good reason to make such a request, and must show they have acted responsibly and with good judgment in observing the academic regulations. In particular, students are expected to seek support when needed, and make informed academic decisions proactively. The University understands that, in some instances, students may have valid reasons to ask for special consideration.

While students have the right to petition, the University reserves the right to grant or deny requests. Students are cautioned that some academic matters cannot be petitioned, although they can sometimes be resolved by working directly with the instructor or academic unit offering a course.

Where a petition is justified, it must be filed by the appropriate deadlines, and with the appropriate documentation. Even if a petition has been filed by the deadline, it will not be considered if documentation is not provided within 5 business days of its submission (3 business days for requests to add a course late).

When they file a petition, students effectively authorize the release of relevant aspects of their University record to be reviewed by authorized members of the University (staff and/or faculty). Such information is held in strictest confidence.

Students should submit their petition online via eService. If the issue is simple and the solution straightforward, students may not need advice or assistance with their petition. However, if there are more complex academic issues involved, students may want to speak first with their instructor, program supervisor, or discipline representative. If serious personal problems are involved, students should meet with an academic advisor in the Academic Advising & Career Centre or a personal counsellor in the Health & Wellness Centre. Students should not let this recommendation interfere with submitting their petition by the deadline. Students must submit whatever documentation is necessary to support their request.

Petitions for re-reading of final examinations and of term work returned after the end of a term or session and after the instructor has submitted grades for the course will be granted only if students:

- Articulate clear grounds for reconsideration, addressing the substance of an answer in relation to the mark given it or otherwise identifying the nature of the alleged misevaluation;
- Show that the alleged misevaluation is of a substantial nature: in an objective answer, that a correct response has been counted as incorrect, or in a subjective or essay answer, that the response has been under-evaluated substantially; and
- Support their argument with evidence or documentation that must be submitted with the petition along with a photocopy of the final examination (when available).

Students will be notified online via eService of the decision on their petition. The Petitions Office attempts to respond as quickly as possible, normally within 6 weeks of submission. Students should not inquire about the progress of their petition within that period. Complex cases and petitions submitted during very busy periods may take longer.

If a petition is granted, the following will be recorded on the student's transcript (academic record):

- Withdrawal from courses after the published deadline (LWD or WDR depending on the circumstances);
- Allowed to return early from suspension;
- Deferral of suspension ('suspension deferred');
- Award of aegrotat standing (AEG); or
- Deferred examinations (SDF).

In cases of an error on the part of the University, including violations of the *University Assessment and Grading Practices Policy* (2012), withdrawal from courses is not recorded on the transcript.

The following deadlines apply only to UTSC. Deadlines and policies for courses taken on other campuses may differ.

1. Term Work

- Requests for special consideration on term assignments and term tests within the jurisdiction of the instructor: last day of classes.
- Petitions to submit term assignments or write make-up term tests after the last day to submit term work: last day of the examination period.

2. Final Examinations
Summer, Fall and Winter Sessions

- Petitions to write deferred examinations: 5 business days after the missed examination.

3. Missed Deferred Examinations

- Students who miss a deferred exam will receive a mark of zero for the exam in the calculation of the final grade.
- Only under exceptional circumstances (e.g., hospitalization or severe personal emergency), and when supported with strong and compelling evidence, will a petition for a second deferred exam be considered.
- Petitions to write a deferred examination, which has been missed: 5 business days after the missed examination.

4. Errors in Course Registration or Withdrawal From Courses
Petitions to correct errors in course registration or to withdraw from courses without academic penalty after the published deadline should be submitted as early as possible but not later than: January 31 (Fall Session courses); May 31 (Fall/Winter or Winter Session courses); September 30 (Summer Session courses).

5. Checking of Marks and Appeal of Grades

- Requests for checking of marks on term tests, essays and other term work made to the instructor of a course: last day of classes.
- Petitions for reconsideration of term work returned to students after the end of term: 90 days after the relevant examination period.
- Requests for a photocopy of a final examination: 90 days after the relevant examination period.
- Requests for recalculation of marks through the Office of the Registrar: 90 days after the relevant examination period.
- Petitions for re-reading of a final examination: 90 days after the relevant examination period.

Appeals:
1. Tier 1: The Office of the Registrar

- Petitions are reviewed at the Office of the Registrar, where they are granted or refused. If a petition has not been granted, students can appeal this decision, and the petition will be reviewed by additional University Committees and Councils as follows:

2. Tier 2: Review by the Dean's Advisory Committee

- Students must submit a request for review no later than 90 days after the petition has been denied by the Office of the Registrar. Obtain a Request for Review of Petition Decision form from the Office of the Registrar. Students will be notified via eService as to when their appeal will be heard, as well as when a decision has been made.

3. Tier 3: The Subcommittee on Academic Appeals

- If a request for review to the Dean's Advisory Committee is denied, students may appeal to the Subcommittee on Academic Appeals.

- Students must submit their request no more than 90 days after the second refusal of the petition has been communicated to them. Students must file a Notice of Appeal, which is available in the Office of the Campus Council located in the Bladen Wing, room BV504.
- Students will be notified in writing as to when their appeal will be heard. Students are not required to attend in person, but it is to their advantage to do so.

4. Final Tier: Academic Appeals Committee of Governing Council

- If an appeal to the Subcommittee on Academic Appeals is denied, a final appeal may be made to the Academic Appeals Committee of Governing Council. This is the most formal panel, and is chaired by a legal expert. The normal time frame for a hearing and response at this level may extend anywhere from several months to a year.
- Students must submit their request for an appeal no more than 90 days after the refusal of the Appeal described in Tier 3 has been communicated to them.
- An appeal is commenced by filing a Notice of Appeal form to the Director or Coordinator of the Academic Appeals Committee of Governing Council.

For complete information on petitions and appeals, including deadlines and guidelines for submission click on the Petitions tab on the Office of the Registrar website.

6. Understanding Degrees, Programs and Courses

6.1 General Information

Degree and Program Completion:
Students are **wholly and ultimately** responsible for ensuring their academic programs meet UTSC's regulations in all respects, including: completeness and correctness of course selection, compliance with prerequisite and corequisite requirements, completion of program requirements, completion of degree requirements and observance of all academic regulations and deadlines. Students are urged to seek guidance only from a responsible officer, such as Program Supervisors/Directors, departmental program advisors, academic advisors from the Academic Advising & Career Centre, and the Office of the Registrar if they are in any doubt, and cautioned that misunderstanding, or advice received from another student will not be accepted as cause for dispensation from any regulation, deadline, course, program or degree requirement.

Enrolment Limits:
UTSC makes every reasonable effort to plan and control enrolment to ensure 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. Towards this end, we reserve the right to limit enrolment in programs, courses, or sections, and to withdraw courses or sections for which enrolment or resources are insufficient. UTSC and the wider University will not be liable for any loss, damages, or other expenses that such limitations or withdrawals might cause.

Changes in Programs and/or Courses:
The programs and courses described in this *Calendar* are active as of the Fall term, and available for the academic year to which this *Calendar* applies: they may not necessarily be available in later years. For each active program offered by UTSC, the courses necessary to complete its minimum requirements will be made available annually.

If UTSC must change the content of courses, instructors and instructional assignments, enrolment limits, prerequisites and corequisites, grading policies, requirements for promotion or timetables, all reasonable possible advance notice and alternative instruction will be given; however, UTSC reserves the right to make such changes without prior notice. UTSC and the wider University will not be liable for any loss, damages, or other expenses that such changes might cause.

6A. Completing Your Degree

6A.1 General Information

UTSC offers the following degrees:

- Honours Bachelor of Arts (HBA)
- Honours Bachelor of Science (HBSc)
- Bachelor of Business Administration (BBA)

Students earn their degrees only after they complete all of the requirements described below. While doing so, students must adhere to the academic rules, regulations and policies outlined in the *Calendar*, on the Office of the Registrar website, and on the University's Governing Council website. Degrees are conferred at university convocations, held twice annually: in June (Spring Convocation) and November (Fall Convocation). Students in their graduating year who intend to graduate and take part in the next Convocation must notify the Office of the Registrar of their intention through ACORN by the deadline listed on the "Academic Dates" page on the Office of the Registrar website.

Prospective graduands should expect assessment emails from the Office of the Registrar or the relevant academic units, before the end of March (for June graduation), or by late September (for November graduation) regarding the status of their program(s) and their degree requirements. This email will notify them if each program(s) and overall degree requirements are pending, complete, or incomplete. They can also check Degree Explorer for confirmation of their eligibility for graduation. For detailed information on graduation and convocation, please refer to the Office of the Registrar website.

Changes to Degree Requirements:
Students must complete the degree requirements outlined in the UTSC Calendar in effect during their first, or most recent, registration at UTSC.

Non-Degree Students:
Non-degree students are students registered in degree courses at UTSC:

- Who are not proceeding towards a University of Toronto degree or Certificate; or
- Who have been admitted on an interim basis and who must meet certain conditions before admission as regular degree students.

Except for regulations concerning degree requirements and regulations where non-degree students are specifically exempted, all regulations apply equally to non-degree students and degree students. Where students have been admitted on an interim basis as non-degree students, the conditions of their admission supersede the normal regulations governing academic status.

Note: students admitted as non-degree students are not permitted to enrol in UTSC programs.

Non-Degree Previous Degree Students:
A Non-degree Previous Degree Student is an undergraduate alumnus of the University of Toronto (including UTSC) who has been approved to take credit courses in an academic session following graduation.

1. To become registered as a Non-Degree Previous Degree Student, an application is required by the deadlines set by the UTSC Office of the Registrar, before the beginning of each academic year. Registration is at the discretion of the Office of the Registrar and students may be subject to an application fee. Degree-seeking students will normally take priority in allocating space in classes and other resources.
2. Non-Degree Previous Degree Students are not associated with a Subject POSt (e.g., Specialist Program in Chemistry, Major Program in English), or degree program of study (e.g., Honours Bachelor of Arts, Bachelor of Business Administration), and are not permitted to enrol in programs after graduation. Any remaining uncompleted Subject POSts at the time of graduation will be purged during the degree conferral process.
3. Academic activities taken as a Non-Degree Previous Degree Student do not count towards Subject POSt or degree requirements; however, they do counts towards the GPA.

4. Non-Degree Previous Degree Students pay tuition and incidental fees, as per the UTSC fee schedule.
5. Non-Degree Previous Degree Students are subject to the University of Toronto's *Code of Student Conduct*.
6. Except for regulations concerning degree requirements and regulations where non-degree students are specifically exempted, all regulations apply equally to Non-Degree Previous Degree Students and degree students.

Students Transferring to UTSC from Another Institution:
Students who transfer from another institution to UTSC are required to complete at least half of their program requirements, and half of their course credits, at UTSC. Where all UTSC degrees require students to complete a total of 20.0 credits, students who transfer from another institution, may transfer a maximum of 10.0 credits towards their degree. However, the maximum number of transfer credits students can use towards a program, will be determined by the program; for example, for a program that requires a total of 12.0 credits, students may use a maximum of 6.0 credits, but for a program that requires a total of 8.0 credits, students may use a maximum of 4.0 credits.

Students Transferring to UTSC from the Faculty of Arts and Science (FAS) or University of Toronto Mississauga (UTM):
Where all UTSC degrees require students to complete a total of 20.0 credits, for students transferring from another Arts and Science division or Faculty of the University of Toronto, they are required to complete at least half of their course credits at UTSC. Upon transferring, a maximum of 10.0 credits will be retained as part of their UTSC degree. If students have more than 10.0 credits but these include UTSC courses, the UTSC courses will be retained over and above the 10.0 credits. Students transferring from another Arts and Science division or faculty of the University of Toronto are exempt from the program's maximum requirement.

6A.2 Degree Requirements

The following requirements apply to all degree students who first enrolled as UTSC degree students in the 2013 Summer Session or a subsequent session.

Honours Bachelor of Arts (HBA) and Honours Bachelor of Science (HBSc):
To qualify for the degree, students must:
1. Pass a minimum of 20.0 credits:

- Of the 20.0 credits, at least 6.0 credits must be at the C- and/or D-level, with at least 1.0 credit at the D-level:
- Of the 20.0 credits, at least 0.5 credit must come from each of the following five breadth categories (breadth categories are identified in course descriptions):
    - Arts, Literature & Language
    - History, Philosophy & Cultural Studies
    - Social & Behavioural Sciences
    - Natural Sciences
    - Quantitative Reasoning

2. Complete a program or programs as below (only programs offered by UTSC may be used to fulfill degree requirements, and students are permitted to graduate with a maximum of three certfied programs):

- At least one Specialist program; or

- At least two Major programs; or
- At least one Major program and two Minor offerings.

3. Ensure the combinations of programs used to meet the degree requirement include **a minimum of 12.0 different credits**.*

4. Earn a cumulative grade point average of at least 1.85**. A student whose cumulative grade point average (CGPA) is at least 1.60, but less than 1.85, may request to graduate with a BA or BSc.

Notes:
*Some combinations of programs are not possible due to the similarity in course requirements. Students with questions or concerns are advised to consult the Academic Advising & Career Centre to ensure they complete a minimum of 12.0 different credits. In the event that a student completes two certified Major programs and an additional certified Minor, the 12.0 distinct credits may be taken from any of these certified programs.
**The CGPA requirement to complete certain programs is higher than 1.85. For details see the individual program descriptions.

The type of degree students receive, whether HBA or HBSc, will be determined by the Specialist or Major program completed. For example:

- Students completing a Specialist BA program will receive an HBA degree;
- Students completing a Specialist BSc program will receive an HBSc degree;
- Students completing a Major BA program, in conjunction with any combination of two Minor programs, will receive an HBA degree;
- Students completing a Major BSc program, in conjunction with any combination of two Minor programs, will receive an HBSc degree;
- Students completing a Major BA program and a Major BSc program may choose either the HBA or HBSc degree.

Bachelor of Business Administration (BBA):
To qualify for the degree, students must:
1. Pass a minimum of 20.0 credits.

- Of the 20.0 credits, at least 6.0 credits must be at the C- and/or D-level, with at least 1.0 credit at the D-level.
- Of the 20.0 credits, at least 0.5 credit must come from each of the following five breadth categories (breadth categories are identified in course descriptions):
    - Arts, Literature & Language
    - History, Philosophy & Cultural Studies
    - Social & Behavioural Sciences
    - Natural Sciences
    - Quantitative Reasoning

2. Programs: complete one of the Specialist programs in Management, or the Specialist in Economics for Management Studies (only programs offered by UTSC may be used to fulfill degree requirements).

3. Earn a cumulative grade point average of at least 2.0**.

Note: the CGPA requirement to complete certain programs is higher than 2.0. For details see the individual program descriptions.

Year of Study:
The following is used to define the year of study of degree students:

- 1st year - has fewer than 4.0 credits
- 2nd year - has 4.0 to 8.5 credits
- 3rd year - has 9.0 to 13.5 credits
- 4th year - has 14.0 or more credits

6A.3 Additional Information About Degrees

Double Degree Programs:

The Double Degree programs create an accelerated pathway for students who would otherwise have to complete two separate Specialist programs. Students are required to complete a total of 25.0 credits, and can complete both undergraudate programs and degees within five years. For more information please see the Double Degree Programs section of this *Calendar*.

1. The Department of Computer and Mathematical Sciences, in partnership with the Department of Management, offers the following Double Degrees programs:

- Double Degree: BBA, Specialist program in Management and Finance/Honours BSc, Specialist program in Statistics, Quantitative Finance Stream
- Double Degree: BBA, Specialist (Co-operative) program in Management and Finance/Honours BSc, Specialist (Co-operative) program in Statistics, Quantitative Finance Stream

2. The Department of English, in partnership with the Department of Psychology, offers the following Double Degree program:

- Double Degree: Honours BA, Specialist program in English/Honours BSc, Specialist program in Psychology

Combined Degree Programs:
UTSC offers a diverse array of Combined Degree Programs (CDPs). A CDP allows a student to be registered in two-degree programs at the same time, creating one approved program combination and pathway. Students complete the requirements for both degrees in a manner that provides a benefit that would not be available to students completing each degree program separately. For more information, see the Combined Degree Programs section of this *Calendar*.

1. Combined Degree Programs, Bachelor of Business Administration/ Master of Accounting and Finance
2. Combined Degree Programs, Honours Bachelor of Science/Master of Environmental Science
3. Combined Degree Programs, Honours Bachelor of Science/ Master of Engineering
4. Combined Degree Programs, Honours Bachelor of Science/ Master of Social Work
5. Combined Degree Programs, Honours Bachelor of Science or Honours Bachelor of Arts/ Master of Teaching

Second Degrees:
Students who have graduated with a degree from the University of Toronto, or another accredited

university, may apply in accordance with posted deadlines to begin a second degree. Application for admission to a second degree is made through the Office of Admissions & Student Recruitment at UTSC. Before applying, students are urged to consider if a second degree is actually required for their purposes, for example, a make-up year as a non-degree student may satisfy admission requirements for graduate school. Students are advised to check with the graduate schools to confirm that non-degree courses or second degrees will be considered. Students are governed by the rules in place at UTSC at the time they commence their second degree.

Students who successfully apply for a second degree may pursue either an Honours Bachelor of Arts (Honours BA) or an Honours Bachelor of Science (Honours BSc) degree. A Bachelor of Business Administration (BBA) may not be pursued as a second degree; however, students who have completed a BBA as a first degree may pursue an Honours BA or BSc as a second degree. The second degree may not include a program(s) in any of the same discipline(s) as the first degree (e.g., a student awarded a first Honours BA including a program in English may not pursue a second Honours BA including a program in English, or a student awarded a first Honours BSc including a program in Psychology may not pursue a second Honours BSc including a program in Psychology).

Students wanting to pursue a second degree in a limited enrolment program may need to complete prerequisite courses as a non-degree student before entering the second degree. These students should consult with the Office of the Registrar for limited enrolment program requirements.

Students beginning a second degree are granted 5.0 credits towards the completion of the degree (4.0 credits at the A-level and 1.0 credits at the B-level), regardless of the number of previous degrees held; to earn the second degree, students must complete a minimum further 15.0 credits as UTSC students. Second-degree candidates may not repeat courses taken in a previous degree; however, they may count such courses towards satisfying prerequisite and program requirements with the approval of the department offering the program. Candidacy in a new degree program of study will be established, and a new grade point average will commence with the second-degree courses.

Students completing a Double Degree program should consult the Double Degree Programs section of the Calendar since the requirements for Double Degree programs are different from the requirements for a Second Degree.

Discontinued Degrees and Upgrading:
UTSC has discontinued the 15.0 full credits (three-year) BA and BSc degrees; however, students who began their three-year degree program at UTSC before the 2004 Summer session may still choose a 15.0 full credits (three-year) degree; these students should consult the Office of the Registrar.

Students with a BA or BSc who return to upgrade their degree to an Honours BA or Honours BSc must exchange the BA or BSc for the same Honours degree; for example, a BA can only be upgraded to an Honours BA; a BA cannot be upgraded to an Honours BSc. Similarly, a BSc cannot be upgraded to an Honours BA. Students who upgrade to an Honours degree are not eligible to attend the convocation ceremony for the upgrade.

6A.4 Certificates

The University of Toronto offers two types of for-credit certificates:

Category 1: is a post-baccalaureate, stand-alone certificate that normally requires completion of an undergraduate degree, or equivalent, for admission.

- Successful completion of the certificate is recorded on the academic transcript;
- Students are registered as undergraduate students and receive a parchment at Convocation.

Category 2: is a certificate that is offered in conjunction with an undergraduate degree program; they require students to be enrolled in a specific University of Toronto undergraduate degree program.

- Successful completion of the certificate is recorded on the academic transcript as a component of the undergraduate degree;
- Students do not receive a separate parchment at Convocation.

For more information on specific offerings, please see the Certificates section of the Calendar.

6A.5 Language Citation

The Language Citation is intended to provide an incentive to students who are interested in intensive study of a particular language but who cannot, or may not wish to, complete a Specialist, Major or Minor in the language. It is neither a substitute for a program in the language nor does it impede students wishing to complete such a program. It simply acknowledges language proficiency on the student's transcript.

The Language Citation is available to students who graduate in 2007 or in a later year. Students who graduated prior to 2007 may be eligible for this citation if they return to UTSC for further language study that contributes to the assessment of the Citation.

Requirements for the Language Citation:
The Citation may be earned in French or Mandarin.

1. Students must complete 2.0 credits in the language beyond the introductory level and must achieve a final grade of at least B- in each of the courses that make up those two credits.
2. The 2.0 credits may be language instruction or other courses (e.g. literature courses) where instruction is in the language to be assessed.

Students normally take 1.0 credit at the introductory level. Those who already have proficiency in a language and wish to proceed directly to courses beyond the introductory level should consult the relevant program supervisor about appropriate placement. Similarly, students who wish to include courses taken in a country where the language is spoken should consult the relevant program supervisor about appropriate study abroad options.

Assessment of the Language Citation:
The Language Citation will be assessed at the point of graduation. To apply for a Citation, students should contact the Centre for French and Linguistics in advance of graduation, presenting the Centre with a copy of their academic record (produced from ACORN through the Student Web Service) and indicating the courses they would like considered in the assessment. For more information contact cfl-ua@utsc.utoronto.ca.

The Language Citation will consist of a notation in the UTSC section of the transcript that reads: "Completed the requirements of the Language Citation in [Name of Language]."

6A.6 Degree Explorer

Degree Explorer is the University of Toronto's degree planning tool: students can use it to determine whether they are meeting their degree and/or program requirements (determination regarding the completion of degree requirements will be made by the Office of the Registrar). In addition, students can review their academic history, including any awarded transfer credits and course exclusions, or use the planner to determine how future course choices might meet their requirements. This service is a complementary tool for your regular academic advising sessions.

Students access Degree Explorer through the ACORN webpage using their UTORid and password. Degree Explorer enables students to:

- View any transfer credits and/or exclusions awarded through on-admission or post-admission (including exchange);
- Check progress in programs and degrees;
- Check prerequisites and exclusions, and plan the courses necessary for programs and degrees;
- Explore hypothetical "what if" scenarios (e.g. different programs, use different program requirements, adding courses, etc.); and
- After confirming their intent to graduate, prospective graduands can check Degree Explorer to see if their Subject POSts have been confirmed by the Office of the Registrar or relevant academic unit; they can also check Degree Explorer for confirmation of their eligibility for graduation by the Office of the Registrar.

6B. Selecting Your Program(s)

Programs, commonly referred to as Subject POSt(s) and sometimes as programs of study, are groupings of courses in one or more disciplines. Students are reminded that completion of a program (or programs) will fulfill only one component of the requirements necessary to earn their degree (see section 6A: Completing Your Degree).

Students are strongly urged to consult frequently with their Program Supervisor/Director, or departmental program advisors, as they progress through the program requirements; they are identified in the Discipline sections of the Calendar.

Program Supervisors/Directors, and departmental program advisors, have the authority to deal with special circumstances concerning program requirements. They may:

- Accredit to program requirements, courses are taken on other campuses of this University or at other Universities; and
- Permit course substitutions or other modifications of program requirements where they deem them appropriate.

When special arrangements are made, students must ask their Program Supervisor, or departmental program advisor, to record them in Degree Explorer.

6B.1 Registration for Subject POSt(s)

1. Degree students must select their Subject POSt(s) when they have passed 4.0 credits. The first period to select and/or apply to programs begins in March for students who expect to complete their fourth credit by the end of the Winter session; the second period begins in June for students who expect to complete their fourth credit by the end of the Summer session.

2. Students may only select Subject POSt(s) offered by UTSC; instructions can be found on the Office of the Registrar website.

3. Students should be mindful that program admission and course requirements can change from year to year, and as of the 2019-20 academic year, the requirements they must complete are those that are in place for the academic session in which they begin the program(s) they have selected as a Subject POSt, or any subsequent year.

Note: The Calendar is published once annually, normally by mid-May and comes into effect as of the Fall session. Program Supervisors, instructors in A-level courses and academic advisors from the Academic Advising & Career Centre may be consulted for assistance.

4. Students with fewer than 4.0 credits are not required to select a program; however, they should, when selecting their courses, consider carefully the admission and program requirements of any programs they may later choose to follow. Program Supervisors/Directors, instructors in A-level courses and academic advisors from the Academic Advising & Career Centre may be consulted for assistance.

Notes:

- Students who have registered in a program(s) should consult at least once each year with their program supervisor to ensure their course selection will meet program requirements.
- Students are responsible for ensuring their course selection will enable them to complete the requirements of their program(s) by the time they complete their other degree requirements. In certain programs, approval by the supervisor of some or all courses is necessary. In all programs, the supervisor is available for advice concerning program requirements and course selection.

6B.2 Limited and Unlimited Enrolment

Programs are designated as either "limited" or "unlimited" enrolment. To determine if a program is limited or unlimited enrolment visit the Office of the Registrar website.

Limited Enrolment:
Enrolment in some programs is limited to a maximum number of students. Such limits are generally defined by specified course and/or grades "admission" requirements, which are identified in the discipline areas of this Calendar, and/or in descriptions of individual programs. Other admission requirements may also apply.

Unlimited Enrolment:
Beyond the overall limitations on program enrolment (see section 6B.6, items 1-3, below), unlimited enrolment programs will not have admission requirements, and will not limit the number of students who may enrol.

6B.3 Types of Programs

Specialist:
Specialist programs are designed to provide depth and intensity of study within a limited area defined as a discipline, a group of disciplines, or a particular theme or area of study. They will normally require students to complete 12.0 to 16.0 credits, including at least 4.0 credits at the C- and/or D-level, of which 1.0 credit must be at the D-level.

Major:
Major programs are designed to provide a concentration in an area of study defined as a discipline, a group of disciplines or a particular theme or area of study. They will normally consist of 7.0 to 9.0 credits, including at least 2.0 credits at the C- and/or D-level.

Minor:
Minor offerings are designed to provide study in a specific area for students desiring wide-ranging but coherent programs in different areas of the curriculum. They will normally consist of 4.0 to 5.0 credits, including at least 1.0 credit at the C- and/or D-level.

6B.4 Joint Programs with Centennial College

UTSC and Centennial College collaborate to offer Joint programs. These programs build on the academic strengths of the University of Toronto degree together with Centennial College's strengths in technical and practical education. Students earn a University of Toronto degree, and also have the opportunity to qualify for a diploma or certificate from Centennial College, which in some cases may require the completion of an additional academic session.

All Joint Programs are limited enrolment Specialist or Major programs, and may be taken only as part of an Honours BA or BSc degree. Currently, the following Joint programs are offered:

- Specialist (Joint) Program in Journalism (Arts)
- Major (Joint) Program in New Media Studies (Arts)
- Specialist (Joint) Program in Paramedicine (Science)

For specific program details, including application procedures, admission requirements, and program requirements visit the Joint Programs website. Program admission and course requirements are also described in the relevant discipline sections of the *Calendar*.

Students in Joint programs will enrol in all degree credit courses at UTSC through ACORN, including those taken at Centennial College. They are urged to meet regularly with their UTSC Program Supervisor/Director to ensure they are progressing appropriately through their program.

Notes:

- Registration and academic information for the Joint programs are shared with the relevant Program Supervisor and Departments at Centennial College.
- Tuition and incidental fees are payable to the University in the normal way. In each session in which students are taking one or more courses at Centennial College, a program fee relating to the use of materials is charged. The amount of the fee varies by program.

6B.5 Co-operative Programs

General Information:
UTSC offers Co-operative Education (Co-op) programs in three distinct units: Arts & Science, International Development Studies, and Management. These Co-op programs consist of two parts - an academic program of study and a Co-op work-term component, both of which are integral parts of the Co-op program curriculum. Practical work experience in an approved setting is undertaken to enhance academic studies through the opportunity to apply and develop concepts and/or skills that are important in the related program of study.

All Co-op programs are either Specialist or Major programs. Following UTSC Degree Requirements, Major Co-op programs must be combined with either another Major program or with two Minor programs. Credits associated with the successful completion of work-term requirements are in addition to the 20.0 credits required for a degree. For this reason, some Co-op programs may take up to five years to complete.

No student may be enrolled in more than one Co-op program and all Co-op students must be registered at UTSC to maintain their Co-op status. For a listing of Co-op programs see section 3.2 (Academic Units and Programs) of this Calendar. Students should also visit the *Calendar* section for the related Co-op Office, and the Co-op Office website, to better understand the recruitment process, Co-op fees and best practices for success:

- Arts & Science Co-op
- International Development Studies Co-op
- Management Co-op

Admission to Co-op Programs:
Prospective Applicants
Enrolment in Co-op programs is limited. Students applying directly from secondary school, or transferring to UTSC from another University of Toronto division, or another post-secondary institution, can select the Co-op Admission Category on their application for admission. See the Admissions and Student Recruitment website for further details.

As part of the application process, some Co-op programs require a Supplementary Application Form (SAF), which asks applicants to provide information in addition to the academic record. In some cases, an interview may be conducted.

Current UTSC Students
Students studying at UTSC, who are not already in a Co-op program, may apply for admission into a Co-op program following their first year of study. For minimum qualifications and admission requirements please see the description of the individual program in this *Calendar*. Application procedures can be found on websites for Arts & Science Co-op, International Development Studies Co-op and Management Co-op.

Fees:
Every student in a Co-op program is required to pay Co-op fees as established by the University. The Co-op fees relate to costs associated with the administration of the Co-op program including, but not limited to, the facilitation of work-term preparation courses, the development of work term opportunities, and staffing support for students throughout the competitive job search process. These fees are calculated in accordance with Ministry of Education and University of Toronto policies. Tuition fees do not apply, and are not charged, when a student is registered in a work-term and not

taking other courses, nor are there any additional tuition fees associated with the required Co-op work-term preparation courses. If a student leaves the Co-op program for any reason, Co-op fees paid in earlier sessions are not refundable.

Program of Study Requirements:
Co-op programs require completion of all program and degree requirements (normally within eight four-month terms of full-time study), as well as successful completion of work-terms, as specified by the particular program. Work-terms are evaluated by the Program Supervisor, the Co-op Office, and the employer. Upon completion, a grade of CR (Credit)/NCR (No Credit) is recorded on the transcript. The credits earned for successful work-term completion are in addition to the 20.0 credits required for the degree.

To receive certification for completion of the Co-op program on graduation, a student must:

- Meet all of the normal requirements for the selected degree;
- Complete the course requirements for the specific program;
- Complete the co-op work-term preparation course(s) and any other prerequisites for the work-term as required by the specific program;
- Maintain a cumulative grade point average (CGPA) of at least 2.5 (note that this is higher than the CGPA of 1.6 required for good standing in most non-Co-op programs);
- Receive a satisfactory evaluation for all work-term performance and work-term assignments;
- Register as a full-time student during study terms (i.e., a course load in each study term of at least 1.5 credits and normally 2.5 credits);
- Return to studies after each work-term; and
- Pay Co-op fees as assessed by the University.

For additional information about any requirements specific to a particular program, see the description of the individual program in this *Calendar*.

Work-Term Preparation Courses:
Students enrolled in a Co-op program must complete Co-op work-term preparation courses as specified by their respective Co-op Office, which are designed to prepare them for their job search and work-term experience, and to maximize the benefits of their work-term. These courses will cover a variety of topics intended to help students develop the skills and tools needed to secure work-terms that are appropriate to their program of study, and to perform professionally in the workplace. Students must complete the work-term preparation course requirements noted by their Co-op Office before they are eligible to compete for work-terms. No academic credit is given for the courses and no additional course fee is assessed. For additional information about the work-term preparation courses, see the description of the individual program in this *Calendar*, and visit the related *Calendar* section for the related Co-op Office as well as the Co-op Office website.

Work-Terms:
Work-term opportunities are developed by the Co-op Office for the program, but students are required to apply and compete with other Co-op students for these opportunities. While on a work-term, students remain in contact with UTSC through their Co-op Office and the Program Supervisor of the program of study. In addition, the employer will evaluate the student's performance on work-terms. Also, while on work-term students must prepare for a work-term report/project/assignment that will be evaluated by their Program Supervisor or an academic marker designated by their Department. The work-term report/project/assignment must be submitted to the Co-op Office no later than the deadline noted by their respective Co-op Office. Failure to meet this deadline will result in a grade of NCR (No Credit) for the work-term. A failed work-term will be recorded on the transcript, and the student will be removed from the Co-op program.

Generally, work-terms begin in September, January, or May, and students are normally eligible to seek a work-term after three or four academic terms of full-time study, as specified by each program. Co-op students should review the descriptions of their program of study contained in this *Calendar* for all work-term eligibility requirements. To be eligible for later work-terms, students must be in good standing in the program, have completed any requirements specific to the program, and have received a grade of CR (Credit) on their earlier work-term(s).

6B.6 Additional Regulations Concerning Subject POSt(s)

1. Students may register in no more than three programs at any one time, and may receive a certification of completion of no more than three programs (including no more than two Majors and/or Specialists).

2. Students may register in no more than one limited enrolment Specialist program at any one time. Students enrolling in a Double Degree program are exempted.

3. Students may register in no more than one Co-operative program at any one time. Students enrolling in a Double Degree (Co-op) program are exempted.

4. Students are reminded that, although some programs may require them to take courses on the St. George campus, only UTSC programs can be used to meet degree requirements.

5. Students intending to enrol in any course on another campus which they intend to count towards their program(s) should consult with their Program Supervisor/Director first.

6. Students who transfer from another institution to UTSC are required to complete at least half of their program requirements, and half of their course credits, at UTSC. The maximum number of transfer credits students can use towards a program will be determined by the program; for example, for a program that requires a total of 12.0 credits, students may use a maximum of 6.0 credits, but for a program that requires a total of 8.0 credits, students may use a maximum of 4.0 credits. Students transferring from other divisions or faculties of the University of Toronto are exempt from this program maximum requirement.

6B.7 UTSC Students Wanting to Change Their UTSC Program

1. Students wanting to change their UTSC program(s) must do so through ACORN.

2. Students should be mindful that admission and course requirement can change from year to year, and as of the 2019-20 academic year, students must meet the program admission requirements, and complete the course requirements, that are in place for the academic session in which they begin the program(s) they have selected as a Subject POSt, or any subsequent year. It is therefore in the student's best interest to declare the change in Subject POSt as early as possible.

3. As all Specialist programs in Management (BBA) share a common core of course requirements, students who have already been admitted to a Specialist Management Subject POSt, but who wish to move from one Specialist Management program to another Specialist Management program are permitted to follow the program requirements in place when they were originally admitted to a Management program.

4. Students who are enrolled in a Co-operative program Subject POSt, who want to move from the Co-op program to the non Co-op version of the same program, may follow the program requirements that are in place for the year the student was admitted to the Co-op program, or any subsequent year.

5. Students who have started, or completed, the course requirements of a program, and subsequently decide to move to a different program in the same subject area (e.g., moving from a Minor in Global Asia Studies to a Major or Specialist in Global Asia Studies, or from a Specialist in Human Biology to a Major in Human Biology) may use the courses already completed towards the new program. Students are reminded that as of the 2019-20 academic year, students must meet the program admission requirements, and complete the course requirements, that are in place for the academic session in which they begin the program(s) they have selected as a Subject POSt, or any subsequent year. It is therefore in the student's best interest to declare the change in Subject POSt as early as possible.

6. Students are cautioned that some programs of study are subject to higher tuition fees. These fees will be retroactively applied, and students should consult with the Office of the Registrar in advance of making any changes.

6B.8 Certification of Completion of Programs

Completion of programs is certified when the degree (or degrees, in the case of the Double Degree programs) is conferred. Certification is given only for UTSC programs. Students in their final year who have confirmed their intention to graduate at the next Convocation, or who have confirmed that they are about to complete an upgraded degree, do not have to request certification of completion of their programs.

Students who have graduated, but are returning to UTSC as a Non-degree student to upgrade their degree, or Non-degree Previous Degree, or to add a second or third program to their academic record, must inform the Office of the Registrar during the Graduation Request period.

6B.9 Registration in Programs That Have Been Closed

Students who are already registered in programs that have been suspended to new enrolments or fully closed will be able to complete their programs. UTSC will either offer the courses necessary for them to complete program requirements or will make other appropriate arrangements such as course substitutions. Students should consult with the relevant Program Supervisor/Director or the Chair/Director of the academic unit in which the program was offered.

6C. Choosing Your Courses

6C.1 General Information

A course is a unit of teaching that focuses on a specific discipline area (e.g. English or Mathematics), and takes place within a specific timeframe. It will be led by an instructor (or instructors), and have a fixed roster of students, who may receive a grade and academic credit upon its completion.

Students are cautioned that some university programs and courses require the completion of certain high school prerequisites or their equivalents. Information about prerequisites are found in the descriptions of programs and courses in this *Calendar*.

Students select their courses through ACORN, and are responsible for the accuracy of their registration. When selecting, adding and dropping courses in ACORN, students should always list their courses upon completing the transaction. Students are reminded that registration consists of two basic steps:

- Course selection; and
- Fees payment (or an arrangement of a fee payment deferment).

Both must be completed by the appropriate deadlines to be considered a "registered" student and to retain a place in any courses selected.

For additional information on registering in courses, as well as deadlines, see the Registrar's Guide or the Office of the Registrar website.

6C.2 Understanding Course Descriptions

Course descriptions in this *Calendar* contain the following elements:

- The course code – a unique 8-character alpha-numeric code;
- The course title;
- The course content;
- Prerequisites – courses students must already have passed before taking the described course;
- Corequisites – courses students must take in the same semester as, or already have passed before taking the described course;
- Exclusions – students who have already passed a course listed as an exclusion, cannot take the described course for credit;
- Recommended preparation – background material or courses that enhance a student's understanding of a course;
- Enrolment Limits – indicate the described course is limited to a specific number or group of students;
- Breadth Requirement – indicates the category of breadth requirement the described course fills; and
- Note: any additional non-curricular information about the course.

Interpreting Course Codes:
All course codes are unique 8-character alpha-numeric codes. Consider the following examples: ANTA01H3, BIOB50H3, ENGC09H3, PSYD35H3.

Parts of the Course Code	What it Means
Part 1: the combination created by the first three characters, for example: • ANT • BIO • ENG • PSY	Identifies the discipline area the course belongs to: • ANT refers to Anthropology • BIO refers to Biology • ENG refers to English • PSY refers to Psychology Refer to the Academics At-A-Glance section of the *Calendar* for a complete list of discipline area codes.
Part 2: the fourth character, for example: • A • B • C • D	Identifies the level of the course: • A-level corresponds to the first year • B-level corresponds to the second year • C-level corresponds to the third year • D-level corresponds to the fourth year
Part 3: the combination created by characters five and six, for example: • 01 • 50 • 09 • 35	These numbers may be arbitrary, or may indicate the course belongs to a sequence.
Part 4: the seventh character, for example: • H	Identifies the credit value of the course: • H courses have a value of 0.5 credit

Parts of the Course Code	What it Means
• Y	• Y courses have a value of 1.0 credit
Part 5: the eighth character, for example: • 3	Identifies the campus on which the course is offered: • 3 indicates UTSC • 1 indicates St. George/FAS • 5 indicates UTM
Part 6: the section code, for example: • F • S • Y Section codes do not appear in the course code in the *Calendar*, but do appear next to the course code in the Course Timetable.	Identifies the session in which the course will be taught: • F = Fall (or the first semester of the Summer session) • S = Winter (or the second semester of the Summer session) • Y = both Fall and Winter (or both semesters of the Summer session)

Common Notations in Calendar Descriptions:
1. Prerequisites in Square Brackets [ ]:
Square Brackets are used in prerequisites to indicate aggregate or alternate choices; for example:

- [MGEB01H3 or MGEB02H3] and [MGEB05H3 or MGEB06H3] indicates that students must take either MGEB01H3 or MGEB02H3 AND either MGEB05H3 or MGEB06H3 (2 courses); but
- [MGEB01H3 and MGEB02H3] or [MGEB05H3 and MGEB06H3] indicates students must take either MGEB01H3 and MGEB02H3 OR MGEB05H3 and MGEB06H3 (2 courses).

2. Prerequisites, Corequisites and Exclusions in Round Brackets ( ):
Courses enclosed in round brackets; e.g., (POLB50H3) have been retired, and are no longer offered.

- Students who have completed, in a previous session, a prerequisite or corequisite course that is no longer being offered (i.e. appears in round brackets) may make use of the course to meet the requirements of the course being described.
- Students may not register for credit in any course, which lists as an exclusion, a course they are currently taking or have already passed, even if the excluded course is no longer offered (i.e. appears in round brackets). Such courses will count as “extra” (EXT).

UTSC delivers courses using three types of instruction:

- A lecture/seminar is the most traditional method of delivering a course. They normally meet several times a week, and are held in person. Some lectures may be delivered online.
- A tutorial provides a supervised review of course material, typically in small groups.
- A practical provides applied training.

6C.3 Alternative Types of Courses

Credit/No Credit:
UTSC degree students may select up to 2.0 credits of their degree credits to be assessed on a Credit/No Credit basis. Courses identified as program requirements, or that are intended for individual study, such as supervised reading courses, are not eligible for Credit/No Credit assessment. UTSC students must choose, or cancel, this mode of assessment via ACORN no later than the last day of classes at UTSC, regardless of the division at which the course is taught. Once the deadline has passed, students may not under any circumstances reverse this decision.

The CR/NCR option is open only to degree students. Once students have graduated, they may not complete courses on a CR/NCR basis, even if they enrolled in the course before their graduation; for example, a student graduating in June, selecting a Summer course as CR/NCR. Or a student graduating in November, selecting a Fall or Winter course as CR/NCR, will have the CR/NCR designation removed and a percentage grade will appear on the student's record.

Supervised Reading, Supervised Research and Independent Study:
Generally offered at the C- or D-level. Students in these courses work under the direction of a faculty member with whom they meet periodically, or in whose laboratory they work. Students must obtain written permission of instructors to be registered in them (forms are available from the Office of the Registrar website). Please note that some disciplines require submission of their own special application forms for courses of this type, in addition to or in place of, the Supervised Study form.

Restricted Admission:
Some courses have restricted admission and may require approval before students are allowed to enrol in them. Restricted courses and the approval required are listed in the Course Timetable.

WebOption:
Some UTSC courses have WebOption sections intended to provide enhanced flexibility with respect to how and when students attend lectures. These sections are normally created by recording instructors as they give their traditional lectures, then posting these recorded lectures, along with any slides shown in class, on the internet for students to watch online. Thus, students can make these classes fit their lives and their schedules.

Extra (EXT):
Extra courses are those for which students will not receive credit. The course and its grade will appear on the student's transcript (designated as an extra course) but the grade is not included in the student's grade point averages nor does the course count towards the degree. However, if appropriate, it may be used to satisfy program requirements.

6C.4 Regulations Concerning Course Selection

1. Students whose registration contravenes the regulations may be withdrawn from courses, regardless of when the contravention comes to light.

2. **Prerequisites**: students must have passed any prerequisites identified in the course description before they enrol in the described course unless they have explicitly waived by the instructor

- Instructors are empowered to waive prerequisites if they feel that there are adequate grounds for so doing.
- If a student registers in a course without meeting its prerequisite and without obtaining a specific waiver, the student may be withdrawn from the course at any time without warning. Students remain in such courses at their own risk since not having passed the prerequisite will not be accepted as grounds for special consideration or petition.
- If the prerequisite being waived is listed as a program requirement, students should discuss the matter in advance with their Program Supervisor/Director – the Program Supervisor/Director may need to record an exception in Degree Explorer.
- The Office of the Registrar does NOT require notification of a prerequisite waiver.

3. **Corequisites**: students must either already have passed the corequisite course, or must enrol in it at the same time as they take the course being described.

- Instructors are permitted to waive corequisites if they feel that there are adequate grounds for so doing.
- If students register in a course without meeting its corequisite, or if they withdraw from the corequisite course without obtaining a specific waiver, the student may be withdrawn from the described course at any time without warning. Students remain in such courses at their own risk since not having passed the corequisite will not be accepted as grounds for special consideration or petition.

4. **Exclusions**: students may not register for credit in any course which lists as an exclusion a course they are currently taking or have already passed (this includes credit awarded for work at other institutions, and courses that have been closed/deleted).

- Students are cautioned that courses are not always mutually exclusive, so it is important to check the *Calendar* entries for both courses to ensure each lists the other as an exclusion.
- Where students enrol in an excluded course, the second course will be marked as an extra (EXT) course and, although it will appear on the transcript and can be used to satisfy program requirements, it will not count towards degree requirements or CGPA.
- ACORN does not automatically check for exclusions, but courses will be identified as extra courses in the student's academic record, as soon as the exclusion is discovered. Students are cautioned this could happen without warning at any time during the student's studies at UTSC. Students can consult Degree Explorer to identify exclusions.
- **It is every student's responsibility to ensure s/he does not duplicate his/her studies, whether inadvertently or otherwise.** Some FAS and UTM courses that have not been identified in this *Calendar* may be exclusions of UTSC courses and vice versa; for this reason, it is always good practice to consult the Program Supervisor/Director or an academic advisor from the Academic Advising & Career Centre before taking courses on other campuses. Similarly, some UTSC courses, including some that have been retired, may not appear in this Calendar as exclusions. If UTSC, FAS and/or UTM courses have similar titles or content, the onus is on the student to contact the academic unit offering the course(s) to determine if the content is so similar the courses should be considered as exclusions.

5. Students may not re-register for credit in a course they have already passed, but they may re-register in a course they have taken, but failed. In the latter case, both registrations in the course are shown on the student's record, and both grades count in the student's CGPA.

6. Where students may not register in a course for credit, they may register in it as an extra (EXT) course. In such cases, the course and the final grade are shown on the student's record, but the grade is not included in the student's CGPA, nor does the course count towards the program admission requirements or the degree requirements; however, if appropriate, it may be used to meet program course requirements.

7. Students must register for their courses in accordance with instructions issued each session by the Office of the Registrar. Students who wish to change their registration:

- May do so only until the deadlines for adding and dropping courses, described under Academic Dates on the Office of the Registrar website; and
- May do so only through ACORN.

8. Students are cautioned that they are responsible for ensuring their course schedule is conflict-free. Students who knowingly remain in courses that conflict with one another will not receive special consideration should they encounter problems related to the conflict.

9. Where multi-sectioned courses have a common examination, students enrolled in an evening section of the course may be required to sit an examination during the day and vice versa. Students may also be required to write Saturday or Sunday term tests or examinations.

6C.5 Regulations Concerning Course Load

1. A standard course load for a full-time undergraduate student in any session is 2.5 credits.

2. Students who register in at least 1.5 credits in a session are considered to be full-time. Students who enrol in fewer than 1.5 credits in a session are considered to be part-time. Students who are restricted to part-time studies may have a course load of no more than 1.25 credits in any session until they have completed at least 3.0 credits and have a cumulative grade point average of at least 2.00.

3. Undergraduate students at UTSC are not permitted to enrol in more than 3.0 credits per term without permission from the Office of the Registrar. Limited exceptions are made for students working towards a BBA degree; for more information consult the Management section of this *Calendar*.

4. Students writing deferred exams will have their credit load reduced by the credit weight of the exams deferred in the session leading up to the deferred exam. For the purposes of calculating the course reduction, the normal credit load per session is considered to be 2.5 credits. For example, a student writing a deferred exam in the Fall deferred exam period with a credit weight of 0.5 (half credit) would be permitted to enrol in a maximum course load of 2.0 credits in the Fall session. For more information, and the course load chart, go to the Office of the Registrar website.

5. Students placed on probation may not exceed a course load of 2.0 credits per session.

- Upon notification of probation, students enrolled in future sessions must drop all courses above the 2.0 credits maximum. Failure to do so within 7 days of notification of standing on ACORN will result in withdrawal from all courses. Students who successfully petition to re-enrol back into the appropriate course load are subject to a late registration fee.
- Students who are allowed to continue on probation because they have achieved a sessional grade point average of at least 1.60 may take a normal course load.

- While on probation, students must meet with an academic advisor to discuss the reasons leading to being placed on probation and to plan strategies to improve academic performance. Staff in the Academic Advising & Career Centre are available to provide guidance.
- For more information about academic probation go to the Office of the Registrar website.

6C.6 Regulations Concerning Course Changes

Students may add courses or drop courses without academic penalty through ACORN up to the dates stated in the Academic Dates. The deadlines for adding or dropping courses are strictly applied.

- Students who make changes through ACORN should end their transactions by listing their courses to ensure the change has been processed properly. They will not receive written confirmation of the change but it will be recorded in the Activity log kept by the University, which can be accessed through ACORN.
- At the time students add a course to their record they are accepting responsibility for fee payment for it. Students who drop courses by the appropriate deadline may be entitled to a fee adjustment. (See the fees refund schedule and information published each session by Student Accounts.

Note: exceptions to the University's fees refund schedule are made only in the case of an error on the University's part.

Changing Meeting Sections in a Course:
Students may change meeting sections in a course at any time provided that, if the change takes place after the deadline for adding the course, they have the written approval of the instructor of the new meeting section, or the administrative staff person responsible for student academic advising in the academic unit offering the course. Changes must be recorded at the Office of the Registrar through ACORN (until the last day to add the course) and on a section change request form at the Office of the Registrar thereafter.

Note: For some course sections, changes are not permitted on ACORN - these are listed in the Course Timetable.

Dropping a Course:
1. Students wanting to drop a course should pay attention to two deadlines in the Academic Dates:

- If students withdraw from a course by the last date to drop courses without academic penalty, no record of registration is shown on the student's transcript.
- If students withdraw from a course by the late withdrawal date, the course remains on the student's record with a grade of LWD indicating late withdrawal. Students are permitted to withdraw late from a maximum of 3.0 credits during their studies within UTSC, FAS or UTM.

2. If students cease to complete course requirements but do not withdraw officially by the later deadline, a grade based on the marks awarded (including a zero for any incomplete work) will be recorded.

3. Students are not permitted to cancel or withdraw from a course in which an allegation of academic misconduct is pending, from the time of the alleged offence until the final disposition of the accusation. Such courses are designated GWR until the allegation is resolved.

Students who drop all their current courses and do not intend to enrol in any other course in that session (whether Summer, Fall or Winter) are deemed as having withdrawn from the session, and must cancel their registration through ACORN. Students dropping all their courses in a session may wish to speak to an academic advisor from the Academic Advising & Career Centre or Office of the Registrar staff about the academic and financial consequences of withdrawal.

6C.7 Re-enrolling UTSC Students

Students previously registered at UTSC who wish to return after suspension or absence of three or more consecutive sessions (at least 12 months), and UTSC alumni wishing to return to studies as a non-degree student, must submit an online "Re-enrolment Request Form" to the Office of the Registrar. Students should apply to re-enrol well before the final deadline to ensure there is sufficient time to process any requested post-admission transfer credit.

Degree students in good standing who studied at a recognized degree-granting institution during their absence from UTSC may be eligible to receive transfer credit for courses completed with at least a 60% (C-), where the minimum passing grade is 50%. Students should apply for post-admission transfer credit online and make payments. Official final transcripts are required and should be sent directly to the Office of Admissions & Student Recruitment at UTSC.

Enrolment in most courses is on a first-come, first-served basis. In order to have the application processed in time to take advantage of the wider availability of courses, students are strongly advised to submit the application to re-enrol by the dates listed below:

- Mid-March for the Summer Session
- Mid-June for both the Fall and Winter Sessions
- Early October for the Winter Session

Late applications to re-enrol will be considered ONLY if received before classes begin in the session. Late fees may apply. For further information on re-enrolment, visit the Office of the Registrar website.

6C.8 Courses in Other Divisions or Faculties

Students are not permitted to register for courses in divisions or faculties other than the FAS and UTM unless they have received permission by petition or unless the courses are required by their Specialist or Major program.

Undergraduate Courses at FAS and UTM:
UTSC students are permitted to take up to 5.0 credits in courses offered by FAS or UTM, however:

- No more than 1.0 of a student's first 4.0 credits as a UTSC student may be taken on another campus, and students who plan on taking fewer than 1.5 credits in their first session as a UTSC student must enrol in UTSC courses only; Students may be withdrawn from courses after classes have started if their registration violates these rules.
- If a student takes a course offered by FAS or UTM and fails it, the course will not be counted towards the 5.0 credits.
- Courses taken at either FAS or UTM that are designated as "extra" (EXT) will not be counted towards the 5.0 credits.
- Courses taken at either FAS or UTM that are designated as CR/NCR are counted towards the 5.0 credits if the student achieves a grade of CR, but are not counted towards the 5.0 credits if they are assessed as NCR.

Note: The FAS and UTM *Calendars* do not usually list UTSC courses as exclusions. Students taking such courses must check the UTSC *Calendar* for possible exclusions. Students who are in any doubt about whether or not an exclusion exists, whether a course can be used to meet a prerequisite for another course, or can be applied to a program requirement should consult with their Program Supervisor/Director.

6C.9 Courses at Other Universities (Letters of Permission and Transfer Credit)

Degree students in good standing may take a maximum of 5.0 Full Course Equivalents (FCE) elsewhere for transfer credit. Students admitted with transfer credit may be limited in the number of courses that they may transfer after admission.

Prior to taking courses at a Canadian university, students should request a Letter of Permission to confirm the acceptability of those courses for transfer credit. For other universities, students may submit a request for transfer after completing courses elsewhere (Post-Admission Transfer Credit); students are cautioned that there is no guarantee transfer credit will be awarded.

Students should confirm they are eligible to request transfer credit before applying by referring to the Letter of Permission and Post-Admission Transfer Credit Guidelines on the Admissions & Student Recruitment website. Students must apply and submit payment online for transfer credit assessment using the form available at the Transfer Credit, Letter of Permission and Visiting Student Payment Processes website. Assessment of transfer credit may take several weeks to process depending on the time of year and the nature of the request. Applicants are responsible for submitting requests well in advance of any deadlines they must meet, and for obtaining the appropriate advising concerning the Letter of Permission and Transfer Credit processes.

7. Understanding Marks and Grades

7.1 Standing In a Course

As of 1998, students are assigned a grade in each course as follows (grades earned prior to September 1998 remain as originally reported).

Grade	Grade Point Value	Percentage Equivalent	Definition
A+ A A-	4.0 4.0 3.7	90-100 85-89 80-84	Excellent
B+ B B-	3.3 3.0 2.7	77-79 73-76 70-72	Good
C+ C C-	2.3 2.0 1.7	67-69 63-66 60-62	Adequate
D+ D D-	1.3 1.0 0.7	57-59 53-56 50-52	Marginal
F*	0.0	0-49	Wholly Inadequate
CR	No Value	No Value	Credit in a Credit/No Credit course
NCR	No Value	No Value	No credit in a Credit/No Credit course
NC%	0.0	No Value	No credit in a Credit/No Credit course

*F = Fail

Note:
Grades of 'F', 'NCR', and 'NC%' are failing grades, yielding no standing in a course and no degree

credit. Students are cautioned that a numerical score on an assignment is not deemed to be automatically equivalent to the corresponding letter grade.

7.2 Credit/ No Credit

UTSC degree students may select up to 2.0 full credits of their degree credits to be assessed on a Credit/No Credit basis. Courses identified as program requirements, or that are intended for individual study, such as supervised reading courses, are not eligible for Credit/No Credit assessment. UTSC students must choose, or cancel, this mode of assessment via ACORN no later than the last day of classes at UTSC, regardless of the division at which the course is taught. Once the deadline has passed, students may not under any circumstances reverse this decision.

To achieve a status of CR (Credit), a student must earn a final grade of at least 50%. Grades below that will be assessed as NCR (No Credit). Courses with a final status of CR will count as degree credits but will not affect the student's GPA. They may count as breadth requirements and degree credits, but cannot be used to satisfy program requirements.

Courses with a final status of NCR will not count as degree credits but will not count as failures, and will also not be included in the GPA calculation. If a student commits an academic offence in a Credit/No Credit designated course, the CR/NCR designation will be removed and a grade will appear on the student's record.

The CR/NCR option is open only to degree students. Once students have graduated, they may not complete courses on a CR/NCR basis, even if they enrolled in the course before their graduation; for example, a student graduating in June, selecting a Summer course as CR/NCR. Or a student graduating in November, selecting a Fall or Winter course as CR/NCR, will have the CR/NCR designation removed and a percentage grade will appear on the student's record.

Certain courses, including some music courses, are graded on a CR/NC% basis. In these courses, to achieve a passing grade a student must receive a final mark of at least 50%. This will be designated as CR on a transcript and will not be included in the grade point average. A failing grade (below 50%) will be designated on the transcript as NC%, and the course will be included as an “F” (value zero) in the grade point average.
In courses graded on a CR/NC% basis, students may opt for a normal graded assessment with specific grades assigned. Students must choose this mode of assessment no later than the last day to enrol in the relevant course. Requests for this type of assessment are made through the course instructor offering the course. Once the deadline has passed, students may not under any circumstances reverse this decision.

7.3 Other Course Grade Notations

The following notations have no grade point value, do not yield credit, and are not included in the calculation of CGPA:

AEG	Aegrotat standing: grade is assigned based on work completed where medical or similar evidence demonstrates that a student is unable to complete course requirements within a reasonable time, and where a student has already

	completed at least 60% of the work of the course with a grade of C minus or better. • Students must petition for the assignment of an AEG grade to a course. • Where a student is assigned AEG standing, the course counts as a credit but is not included in the CGPA. • Students who require a letter grade will be expected to complete the work of the course.
LWD	Late withdrawal: withdrawal after the last day to drop courses without academic penalty, but before the examination period begins.
WDR	Withdrawal without academic penalty after the relevant deadline. • Students must petition for the assignment of a WDR grade to a course.
GWR	Grade withheld pending the review of an alleged academic offence.
NGA	No grade available.
SDF	Standing is deferred based on incomplete course work because of medical or similar reasons.
IPR	Course is in progress.

7.4 Grade Reports

Grade reports are not issued to students. Instead, final grades, grade point averages and academic standing are made available through ACORN. Grades are available as soon as they have been submitted and approved. CGPAs for individual students are available shortly after the student's last grade is approved, and academic standing is available in September, January and May. Students who are on academic probation, suspended, or refused further registration, will receive an email regarding their academic status.

7.5 Grade Point Averages

1. A grade point average (GPA) is calculated as follows: the grade points earned in each full (1.0) credit course and one-half the grade points earned in each half- (0.5) credit course are added together and this total is divided by the number of full credits taken.

2. A sessional grade point average (SGPA) is the average of the grades in courses taken in the most recent semester (Summer, Fall, Winter).

3. A cumulative grade point average (CGPA) is the average of the grades of all courses passed or failed at UTSC.

4. Sessional and cumulative grade point averages are calculated at the end of each session and included on the student's academic record and transcript.

5. Courses taken for credit by degree students while registered at UTSC, FAS or UTM are normally included in UTSC grade point averages. Courses taken while registered at other institutions or other divisions or faculties of UT are not normally included in grade point averages.

7.6 Determination of Academic Status

The following rules apply to all students except visiting students whose academic status is not assessed or as described below in "Determination of Academic status for Students Re-enrolling at the University of Toronto Scarborough," "Determination of Academic Status for Students in the Certificate Program in Business," and "Determination of Academic Status for Students Admitted on Probation."

Academic status is determined as follows for students who have attempted at least 3.0 credits since beginning their studies at UTSC, or another Arts and Science division of the University (not including Credit/No Credit, Pass/Fail, or courses marked Extra). It is determined at the end of each academic session (Summer, Fall and Winter):

1. In Good Standing
Students who maintain a cumulative grade point average of 1.60 or better are said to be "in good standing".

2. On Probation

- Students who have attempted at least 3.0 credits and have a CGPA of less than 1.60 are placed on probation.
- Students returning from suspension (see item 5 below and any provision in previous rules) shall be placed on probation again.

3. Probation Cleared
Students may clear probation by achieving a CGPA of 1.60 or better. Students who have cleared probation shall be said to be again "in good standing".

4. Probation Continued
Students may continue on probation by achieving a sessional grade point average of at least 1.60 in each session until they return to good standing.

5. Suspended or Refused Further Registration
Students on probation who, by the end of a given session, have not achieved a sessional grade point average of at least 1.60 shall be liable for suspension or refusal of further registration as follows, regardless of the number of credits taken in the session:

- Students who have incurred no previous suspension will be suspended for four months (one session);
- Students who have previously incurred a four-month (one-session) suspension will be suspended for twelve months (three sessions);
- Students who have previously incurred a twelve-month (three-session) suspension will be suspended for thirty-six months (nine sessions); and
- Students who have previously incurred a thirty-six month (nine-session) suspension will be refused further registration.

Determination of Academic Status for Students in the Certificate program in Business:
Academic status is determined at the end of each session as follows for all students who have completed at least two full credits since beginning their studies:

1. In good standing
Students who maintain a CGPA of at least 2.00 are said to be in good standing.

2. Refused further registration
Students who, at the end of a given session, have not achieved a CGPA of at least 2.00 or better are refused further registration in the Certificate program.

Determination of Academic Status for Students Admitted On Probation:
Candidates who fail to satisfy normal admission requirements, but successfully appeal for special consideration may be admitted on probation.

- The academic requirements that such students must meet are the same as those required of students who encounter academic difficulties while registered in the university, including course load restrictions.
- The academic status will remain "On Probation" until the student achieves a CGPA of 1.60 or higher.
- Students on probation who fail to achieve a sessional grade point average of 1.60 or higher will be subject to academic suspension.
- Students who are admitted on probation are urged to seek advice on course selection and study methods from the Academic Advising & Career Centre.

7.7 Academic Transcripts

The academic transcript is the official statement of the academic record of each student.

Contents:
The transcript records the following information:
1. Student’s full name and university student number.

2. Student's academic record, listed chronologically by session, including:

- Each course attempted, its abbreviated title, and its grade including courses from which late withdrawal has been approved;

- The sessional grade point average;
- The CGPA at the end of the session;
- The annual grade point average;
- Completion of a Co-operative program;
- Completion of degree and program requirements, and date of conferral of the degree; and
- Graduation with high distinction or with distinction.

3. The following kinds of special consideration granted by petition:

- WDR - withdrawal without academic penalty from a course after the relevant deadline;
- Deferral of suspension;
- Award of aegrotat standing; and
- Other considerations deemed to have altered the academic record.

Ordering Copies:
Students can obtain an unofficial copy of their academic history at no cost directly from ACORN. Official transcripts can be ordered for a fee through ACORN.

8. Academic Support on the UTSC Campus

8.1 Writing at UTSC

Effective writing is foundational to the academic experience. Good thinking demands good writing; good writing reflects both sound learning and insightful teaching. Good writing is not only an index to intellectual clarity, but the basis of meaningful communication.

UTSC aims to assist its students to achieve proficiency in writing, irrespective of their program. Students will be expected to learn how to frame an argument and support it, to research, critique and integrate materials from a variety of sources, and to present written work that is both cogent and precise. Individual disciplines may encourage their students to hone skills that are particular to their specific areas of study, but all are expected to help their students generate ideas, analyse their sources, and synthesize and interpret information in coherent forms of written expression. Some disciplines have identified writing-intensive courses that aim expressly at enhancing a student's writing ability. Others have adopted their own innovative ways of assisting students to develop and improve their writing skills. The Centre for Teaching and Learning (CTL) offers courses in academic writing for English Language Learners.

In addition to courses, UTSC offers extensive support for student writers. UTSC Writing Support offers individual feedback on writing in progress, as well as opportunities for students to discuss their work with peers in small and large groups. English Language Development Support offers specialized programs to non-native speakers of English, allowing them to assess their competence level and supporting them in building both oral and written communication skills. TA and Graduate Support offer group and individual support for UTSC graduate students.

These and other resources are in place to help ensure that all students, regardless of the point from which they begin, achieve a standard of written expression that is consistent with the rigour of their programs of study.

8.2 Academic Resources and Student Support Services

Students at the University of Toronto Scarborough have access to a large number of excellent academic resources and support services. For more information, including services offered, operating hours, and contact information please visit the websites listed below:

Academic Resources:
Academic Advising & Career Centre
The Academic Advising & Career Centre (AA&CC) integrates developmental advising, learning skills, career counseling and employment coaching through individual appointments, workshops, experimental programming, events and a range of online resources.

Access*Ability* Services
Access*Ability* Services provides services and academic accommodations to students who have a

documented learning, physical, sensory, mental health disability or medical condition. Services cater to the individual.

Library
The UTSC Library is part of the vast resource of scholarly materials including print volumes, print journal subscriptions, sound collections, videos and films, serial collections, electronic journals, and electronic books. It also offers access to over 200 networked computer stations, individual and group study space, and extensive reference and research support. Students can receive research assistance in person, by telephone, through email and through the online Ask a Librarian chat service.

Office of the Registrar

- Admissions & Student Recruitment
- Financial Aid Advisors
- Scholarships & Awards (under the "Finances" tab)
- Registrarial Services

Centre for Teaching and Learning
The Centre for Teaching and Learning (CTL) offers an extensive range of programming, in support of student learning, including English Language Development Support, Math and Stats Learning Support, and TA Support.

Other Student Services:
Athletics and Recreation
Campus Community Police
Equity, Diversity & Inclusion Office
Health & Wellness Centre
Information and Instructional Technology Services
International Student Centre
N'sheemaehn Child Care Centre
Scarborough Campus Students' Union (SCSU)
Sexual Violence Prevention and Support (University of Toronto)
Student Affairs
Student Housing and Residence Life
Student Life

African Studies

Faculty List

- B. Dahl, Ph.D. (Chicago), Assistant Professor
- G. Daswani, M.Sc., Ph.D. (London), Assistant Professor
- G. Dewar, M.A. (Toronto), Ph.D. (Cape Town), Associate Professor
- H. Dinani, M.A., (Toronto), Ph.D. (Emory), Assistant Professor
- A. Hachimi, M.A., Ph.D. (Hawaii), Associate Professor
- E. Harney, M.Phil, Ph.D. (London), Associate Professor
- M. Hunter, M.A. (Natal), Ph.D. (California, Berkeley), Assistant Professor
- T. Kepe, M.Sc. (Guelph), Ph.D. (Western Cape), Professor
- K. Kilroy-Marac, Ph.D. (Columbia), Associate Professor
- N. Kortenaar, M.A., Ph.D. (Toronto), Professor
- M. Lambek, M.A., Ph.D. (Michigan), Professor
- J. Ndayiragije, M.A., Ph.D. (Montreal-UQAM), Associate Professor
- S.J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
- B. von Lieres, M.A. (Witwatersrand), Ph.D. (Essex), Assistant Professor

Director: P. Kingston Email: kingston@chass.utoronto.ca
Program Supervisor: N. Kortenaar Email: neil.kortenaar@utoronto.ca

The world cannot be understood without Africa. African Studies aims to widen students' knowledge and experience of the second largest and complex continent, its peoples, and their diasporas. In coming to terms with its great diversity, students will discover Africans' important contributions to the world's artistic, literary, political, and religious ideas.

In many program courses, Africa, its peoples, and their cultures are situated in relation to the wider world. The study of historical interconnections with Europe, Asia, and the Americas highlights Africa's central role in world history and processes of globalization. Throughout the program, students explore the exciting recent developments in our understanding of African civilizations, thought, political and religious systems, as well as histories of slavery, colonialism, and nationalism. A number of courses emphasize African, Caribbean, and African-American cultural and artistic responses to modernity, racism, and liberation, as well as struggles for security and development.

The program, as a whole, challenges students to think in new innovative directions about Africa across the disciplines and to reject preconceived myths and stereotypes. Students with a Minor Program in African Studies will gain strong skills in critical analysis, research, writing, and communications. The program aims to go further to encourage an awareness of the relationships between the production and application of knowledge and the wider forces of global change, as well as a love of intellectual challenges.

The five learning objectives for the Minor Program in African Studies are as follows:

a. Promoting an understanding of Africa’s deep historical importance in the world.
b. Promoting awareness of the cultural and social diversity of African/African diaspora cultures, religions, languages, music, literature, and film.

c. Promoting theoretical and methodological understandings of the importance of 'de-colonizing the study of Africa and its diaspora'.
d. Promoting and deepening knowledge of the challenges facing contemporary Africa in its global dimensions.
e. Promoting and deepening knowledge about the African diaspora experience, historically and in its contemporary dimensions.

Students who intend to complete the Minor Program in African Studies should include AFSA01H3 in their first-year course selection. Certain elective courses (e.g., ENGB22H3 and ENGD08H3) have non-African Studies prerequisites. This may require that you take more than 4.0 credits to complete the program. Students should check the prerequisites carefully before selecting their courses.

For more information regarding African Studies, please visit the African Studies Program website.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

African Studies Programs

MINOR PROGRAM IN AFRICAN STUDIES (ARTS)

Program Coordinator: Marishka Pereira (416) 208-4811 Email: marishka.pereira@utoronto.ca

Program Requirements
Students must complete 4.0 credits, 1.0 credit of which must be at the C- or D-level

1. 1.0 credit as follows:
AFSA01H3/HISA08H3 Africa in the World: An Introduction
AFSB01H3/HISB52H3 African Religious Traditions Through History

2. 1.0 credit from the following (students should check course descriptions for prerequisites):
AFSA03H3/IDSA02H3 Experiencing Development in Africa
AFSB05H3/ANTB05H3 Culture and Society in Africa
AFSB50H3/HISB50H3 Africa in the Era of the Slave Trade
AFSB51H3/HISB51H3 Africa from the Colonial Conquests to Independence
AFSB54H3/HISB54H3 Africa in the Postcolonial Era
AFSC30H3/HISC96H3 Language and Society in the Arab World
AFSC52H3/HISC52H3/VPHC52H3 Ethiopia: Seeing History
AFSC53H3/WSTC10H3 Gender and Critical Development
AFSC55H3/HISC55H3 War and Society in Modern Africa
AFSC70H3/HISC70H3 The Caribbean Diaspora
AFSC97H3/HISC97H3 Women and Power in Africa
AFSD07H3/IDSD07H3 Extractive Industries in Africa
AFSD51H3/HISD51H3 Southern Africa: Colonial Rule, Apartheid and Liberation
AFSD52H3/HISD52H3 East African Societies in Transition
AFSD53H3/GASD53H3/HISD53H3 Africa and Asia in the First World War

3. 2.0 credits from the following list (students should check course descriptions for prerequisites):
AFSA03H3/IDSA02H3 Experiencing Development in Africa
AFSB05H3/ANTB05H3 Culture and Society in Africa (if not used in Requirement 2)
AFSB50H3/HISB50H3 Africa in the Era of the Slave Trade (if not used in Requirement 2)
AFSB51H3/HISB51H3 Africa from the Colonial Conquests to Independence (if not used in Requirement 2)
AFSB54H3/HISB54H3 Africa in the Postcolonial Era (if not used in Requirement 2)
AFSC30H3/HISC96H3 Language and Society in the Arab World (if not used in Requirement 2)
AFSC52H3/HISC52H3/VPHC52H3 Ethiopia: Seeing History (if not used in Requirement 2)
AFSC53H3/WSTC10H3 Gender and Critical Development (if not used in Requirement 2)
AFSC55H3/HISC55H3 War and Society in Modern Africa (if not used in Requirement 2)
AFSC70H3/HISC70H3 The Caribbean Diaspora (if not used in Requirement 2)
AFSC97H3/HISC97H3 Women and Power in Africa (if not used in Requirement 2)
AFSD07H3/IDSD07H3 Extractive Industries in Africa (if not used in Requirement 2)
AFSD51H3/HISD51H3 Southern Africa: Colonial Rule, Apartheid and Liberation (if not used in Requirement 2)
AFSD52H3/HISD52H3 East African Societies in Transition (if not used in Requirement 2)
AFSD53H3/GASD53H3/HISD53H3 Africa and Asia in the First World War (if not used in Requirement 2)
(ANTC06H3) African Cultures and Societies II: Case Studies
CLAC05H3 Environment, Society and Economy in Ptolemaic and Roman Egypt
ENGB17H3 Contemporary Literature from the Caribbean
ENGB22H3 Contemporary Literature from Africa
ENGC51H3 Contemporary Arab Women Writers
ENGD08H3 Topics in African Literature
ENGD13H3 Rap Poetics
(ENGD61H3) James Baldwin, the African American Experience, and the Liberal Imagination
FREA01H3 Language Practice I
FREA02H3 Language Practice II
FREB01H3 Language Practice III
FREB02H3 Language Practice IV
FREB35H3 Francophone Literature
FREC47H3 Pidgin and Creole Languages
FRED14H3 Advanced Topics in the Literature of Québec
GGRB28H3 Geographies of Disease
GGRC25H3 Land Reform and Development
HISC08H3 Colonialism on Film
HISC34H3 Race, Segregation, Protest: South Africa and the United States
HISC39H3 Hellhound on My Trail: Living the Blues in the Mississippi Delta, 1890-1945
HISD50H3 Southern Africa: Conquest and Resistance, 1652-1900
HLTD27H3 Food Security, Food Sovereignty, and Health
(LGGA40H3) Introductory Modern Standard Arabic I
(LGGA41H3) Introductory Modern Standard Arabic II
(LGGB42H3) Intermediate Modern Standard Arabic I
(LGGB43H3) Intermediate Modern Standard Arabic II
(LGGB45H3) Modern Standard Arabic I for Students with Prior Background
POLC80H3 International Relations of Africa
VPHB50H3 Africa through the Photographic Lens
(VPHB65H3) Exhibiting Africa: Spectacle and the Politics of Representation
WSTB09H3 Gender, Race, and Colonialism

WSTC13H3 Women, Gender and Islam
WSTC26H3 Critical Race and Black Feminist Theories

Note: Not all courses in Requirement #2 and #3 are offered every year.

African Studies Courses

AFSA01H3 - Africa in the World: An Introduction

An interdisciplinary introduction to the history and development of Africa with Africa's place in the wider world a key theme. Students critically engage with African and diasporic histories, cultures, social structures, economies, and belief systems. Course material is drawn from Archaeology, History, Geography, Literature, Film Studies, and Women's Studies.

Same as HISA08H3

Exclusion: HISA08H3, NEW150Y
Breadth Requirements: History, Philosophy & Cultural Studies

AFSA03H3 - Experiencing Development in Africa

This experiential learning course allows students to experience first hand the realities, challenges, and opportunities of working with development organizations in Africa. The goal is to allow students to actively engage in research, decision-making, problem solving, partnership building, and fundraising, processes that are the key elements of development work.
Same as IDSA02H3

Prerequisite: AFSA01H3 or IDSA01H3
Exclusion: IDSA02H3
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

AFSB01H3 - African Religious Traditions Through History

An interdisciplinary introduction to African and African diasporic religions in historic context, including traditional African cosmologies, Judaism, Christianity, Islam, as well as millenarian and synchretic religious movements.

Same as HISB52H3

Exclusion: HISB52H3, (AFSA02H3)
Recommended Preparation: AFSA01H3/HISA08H3
Breadth Requirements: History, Philosophy & Cultural Studies

AFSB05H3 - Culture and Society in Africa

An overview of the range and diversity of African social institutions, religious beliefs and ritual, kinship, political and economic organization, pre-colonial, colonial and post-colonial experience.
Same as ANTB05H3

Prerequisite: AFSA01H3 or ANTA02H3
Exclusion: ANTB05H3
Breadth Requirements: Social & Behavioural Sciences

AFSB50H3 - Africa in the Era of the Slave Trade

An introduction to the history of Sub-Saharan Africa, from the era of the slave trade to the colonial conquests. Throughout, the capacity of Africans to overcome major problems will be stressed. Themes include slavery and the slave trade; pre-colonial states and societies; economic and labour systems; and religious change.
Same as HISB50H3

Prerequisite: Any modern history course, or AFSA01H3
Exclusion: HISB50H3, (HISC50H3), HIS295H, HIS396H, (HIS396Y)
Breadth Requirements: History, Philosophy & Cultural Studies

AFSB51H3 - Africa from the Colonial Conquests to Independence

Modern Sub-Saharan Africa, from the colonial conquests to the end of the colonial era. The emphasis is on both structure and agency in a hostile world. Themes include conquest and resistance; colonial economies; peasants and labour; gender and ethnicity; religious and political movements; development and underdevelopment; Pan-Africanism, nationalism and independence.
Same as HISB51H3

Exclusion: HISB51H3, (HISC51H3), HIS396H, (HIS396Y)
Recommended Preparation: AFSA01H3/HISA08H3 or AFSB50H3 or HISB50H3 strongly recommended.
Breadth Requirements: History, Philosophy & Cultural Studies

AFSB54H3 - Africa in the Postcolonial Era

Africa from the 1960s to the present. After independence, Africans experienced great optimism and then the disappointments of unmet expectations, development crises, conflict and AIDS. Yet the continent’s strength is its youth. Topics include African socialism and capitalism; structural adjustment and resource economies; dictatorship and democratization; migration and urbanization; social movements.
Same as HISB54H3

Prerequisite: AFSA01H3 or AFSB51H3 or 0.5 credit in Modern History
Exclusion: HISB54H3, NEW250Y1
Breadth Requirements: History, Philosophy & Cultural Studies

AFSC30H3 - Language and Society in the Arab World

An examination of the relationship between language, society and identity in the Arab world, with special emphasis on North Africa. Topics include: colonial and postcolonial periods; the role of Arabic in pan-Arab identity; multilingualism, class and education; ideologies of gender and language; and ethno-linguistic revitalization among Berbers in North Africa.
Same as HISC96H3

Prerequisite: Any B-level course in African Studies, Linguistics, History, or Women's and Gender Studies
Exclusion: HISC96H3
Enrolment Limits: 50
Breadth Requirements: Arts, Literature & Language

AFSC52H3 - Ethiopia: Seeing History

This course uses a focus on material history and visual culture to explore Ethiopia from the fourth through the nineteenth century, with particular emphasis on the Christian Church, the monarchy, links with both the Mediterranean world and the Indian subcontinent, and the relationship of individuals to their social, economic, artistic and geographic environments.
Same as HISC52H3 and VPHC52H3

Prerequisite: [1.0 credit in History] or [VPHA46H3 and ACMB01H3 and an additional 1.0 credit in VPH courses]
Exclusion: HISC52H3, VPHC52H3
Breadth Requirements: History, Philosophy & Cultural Studies

AFSC53H3 - Gender and Critical Development

How development affects, and is affected by, women around the world. Topics may include labour and economic issues, food production, the effects of technological change, women organizing for change, and feminist critiques of traditional development models.

Same as WSTC10H3

Prerequisite: [AFSA03H3/IDSA02H3 or IDSB01H3 or IDSB02H3] or [[WSTA01H3 or WSTA03H3] and [an additional 0.5 credit in WST courses]]
Exclusion: WSTC10H3
Breadth Requirements: Social & Behavioural Sciences

AFSC55H3 - War and Society in Modern Africa

Conflict and social change in Africa from the slave trade to contemporary times. Topics include the politics of resistance, women and war, repressive and weak states, the Cold War, guerrilla movements, resource predation. Case studies of anti-colonial rebellions, liberation wars, and civil conflicts will be chosen from various regions.
Same as HISC55H3

Prerequisite: Any 4.0 credits, including: AFSB50H3/HISB50H3 or AFSB51H3/HISB51H3 or (HISC50H3) or (HISC51H3)
Exclusion: HISC55H3
Breadth Requirements: History, Philosophy & Cultural Studies

AFSC70H3 - The Caribbean Diaspora

The migration of Caribbean peoples to the United States, Canada, and Europe from the late 19th century to the present. The course considers how shifting economic circumstances and labour demands, the World Wards, evolving imperial relationships, pan-Africanism and international unionism, decolonization, natural disasters, and globalization shaped this migration.
Same as HISC70H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Exclusion: NEW428H,HISC70H3
Breadth Requirements: History, Philosophy & Cultural Studies

AFSC97H3 - Women and Power in Africa

This course examines women in Sub-Saharan Africa in the pre-colonial, colonial and postcolonial periods. It covers a range of topics including slavery, colonialism, prostitution, nationalism and anti-colonial resistance, citizenship, processes of production and reproduction, market and household relations, and development.
Same as HISC97H3

Prerequisite: Any 4.0 credits, including: AFSA01H3/HISA08H3 or AFSB50H3/HISB50H3 or AFSB51H3/HISB51H3
Exclusion: HISC97H3
Breadth Requirements: History, Philosophy & Cultural Studies

AFSD07H3 - Extractive Industries in Africa

This course examines resource extraction in African history. We examine global trade networks in precolonial Africa, and the transformations brought by colonial extractive economies. Case studies, from diamonds to uranium, demonstrate how the resource curse has affected states and economies, especially in the postcolonial period.
Same as IDSD07H3

Prerequisite: 8.0 credits including [AFSA01H3 or IDSA01H3] and [AFSA03H3/IDSA02H3] and [1.0 credit at the B-level in AFS or IDS courses]
Exclusion: IDSD07H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

AFSD51H3 - Southern Africa: Colonial Rule, Apartheid and Liberation

A seminar study of southern African history from 1900 to the present. Students will consider industrialization in South Africa, segregation, apartheid, colonial rule, liberation movements, and the impact of the Cold War. Historiography and questions of race, class and gender will be important. Extensive reading and student presentations are required.
Same as HISD51H3
Africa and Asia Area

Prerequisite: 8.0 credits including AFSB51H3/HISB51H3 or HISD50H3
Exclusion: HISD51H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

AFSD52H3 - East African Societies in Transition

A seminar study of East African peoples from late pre-colonial times to the 1990's, emphasizing their rapid although uneven adaptation to integration of the region into the wider world. Transitions associated with migrations, commercialization, religious change, colonial conquest, nationalism, economic development and conflict, will be investigated. Student presentations are required.
Same as HISD52H3

Prerequisite: 8.0 credits including AFSB50H3/HISB50H3 or AFSB51H3/HISB51H3 or HISC55H3
Exclusion: HISD52H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

AFSD53H3 - Africa and Asia in the First World War

This seminar course examines the First World War in its imperial and colonial context in Africa and Asia. Topics include forgotten fronts in Africa, the Middle East, Asia and the Pacific, colonial armies and civilians, imperial economies and resources, the collapse of empires and the remaking of the colonial world.

Same as GASD53H3 and HISD53H3

Prerequisite: 8.0 credits, including: 1.0 credit in AFS, GAS, or Africa and Asia area HIS courses
Exclusion: GASD53H3, HISD53H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

Anthropology

Faculty List

- S. Bamford, B.A. (Toronto), M.A. (McMaster), M.A., Ph.D. (Virginia), Associate Professor
- F.D. Burton, B.Sc., M.A. (NYU), Ph.D. (CUNY), Professor Emerita
- W. Butt, B.A. (John Hopkins University), Ph.D. (California, San Diego), Assistant Professor
- M. Cummings, B.A. (York), M.A. (Dalhousie), Ph.D. (York), Assistant Professor, Teaching Stream
- B. Dahl, B.A. (California, San Diego), M.A., Ph.D. (Chicago), Assistant Professor
- G. Daswani, B.Sc. (National University of Singapore), M.Sc., Ph.D. (London School of Economics), Associate Professor
- G. Dewar, B.Sc., MA. (Toronto), Ph.D. (Cape Town), Associate Professor
- K. Kilroy-Marac, B.A. (Wisconsin-Madison), M.A., M. Phil., Ph.D. (Columbia), Associate Professor
- C. Krupa, B.A., M.A. (Toronto), Ph.D. (California, Davis), Associate Professor
- M. Lambek, B.A. (McGill), M.A., Ph.D. (Michigan), F.R.S.C., Professor
- M. Latta, B.A. (Kansas), M.A., Ph.D. (Toronto), Associate Professor Emerita
- L. Mortensen, B.A. (Cornell), M.A., Ph.D. (Indiana), Assistant Professor, Teaching Stream
- A. Paz, B.A. (Queen's), M.A. (Tel Aviv), M.A., Ph.D. (Chicago), Associate Professor
- L. Sawchuk, B.A., M.A. (Manitoba), Ph.D. (Toronto), Professor
- M. Schillaci, B.A. (New Mexico), M.A. (Toronto), Ph.D. (New Mexico), Associate Professor
- M. Silcox, B.Sc. (Toronto), Ph.D. (Johns Hopkins), Professor
- J. Teichroeb, B.Sc., M.A., Ph.D. (Calgary), Assistant Professor
- D. Young, B.A., M.A. (New Brunswick), Ph.D. (Toronto), Assistant Professor

Program Advisor: B. Gonzalez-Shin Email: anthropologyadvisor.utsc@utoronto.ca

Anthropology is the study of humankind, dealing with the origin, development and nature of humans and their culture in all its varieties. As such, it is concerned with human phenomena in the widest possible terms, both biological and cultural. It differs from other social sciences in its comparative and historical approach, and in its intimate links with both the natural sciences and the humanities. Anthropology examines societies today and in the past, including relatively remote and small-scale societies, complex civilizations, and contemporary global and transnational interconnections.

From this vantage point, Anthropology attempts to understand the common factors underlying human existence and the factors that produce social change and differences between people and cultures.

Due to its vast subject matter, Anthropology is traditionally divided into four subject fields: Socio-cultural Anthropology, Evolutionary Anthropology, Linguistic Anthropology, and Archaeology. At the present time, the University of Toronto Scarborough offers programs within two major streams: Socio-cultural and Evolutionary Anthropology. Some Linguistic Anthropology courses are also offered and are closely linked to the Socio-cultural stream. Some Archaeology is offered and is closely linked to the Evolutionary stream.

Students intending to complete a program in Anthropology should take ANTA01H3 and ANTA02H3 within their first year in order to prepare them for more advanced courses. Students normally select whether to pursue the Socio-cultural stream (which leads to a B.A. degree) or the Evolutionary

Anthropology stream (which leads to a B.Sc. degree) at the beginning of their second year of study, but are encouraged to take courses in both streams. All courses in Evolutionary Anthropology, including those in Archaeology, carry a science credit.

Combined Degree Programs, Honours Bachelor of Science or Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Anthropology Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics	Science - Physics

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Physical and Mathematical Sciences	
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.

- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;

    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN EVOLUTIONARY ANTHROPOLOGY (SCIENCE)

The Specialist Program in Evolutionary Anthropology is intended to provide the professionally oriented student with background preparation of sufficient breadth and depth to pursue specialized training at the graduate level. It is also designed to offer interested students a course structure as background for a wide range of occupations and professions. Students are encouraged to consult with the Undergraduate Counsellor regarding the selection of a course sequence appropriate to their interests and objectives. In exceptional circumstances, supervised research and reading courses are available at the C- and D-levels (ANTC04H3, ANTD32H3). These courses require special arrangements prior to registration. Read the descriptions for these courses carefully as restrictions apply.

Program Requirements
The Program requires completion of 12.0 credits, as indicated below.

1. 1.0 credit as follows:
ANTA01H3 Introduction to Anthropology: Becoming Human
ANTA02H3 Introduction to Anthropology: Society, Culture and Language

2. ANTB14H3 Biological Anthropology: Beginnings

3. ANTB15H3 Contemporary Human Evolution and Variation

4. 10.0 credits at the B-level *or* above, of which at least 5.0 credits must be at the C- *or* D-level, including at least 1.0 credit at the D-level. At least 7.5 credits must be composed of ANT courses identified as "Science credit" in the UTSC Academic *Calendar*.

Note: ANTB14H3 and ANTB15H3 are prerequisites for C- and D-level courses in the Evolutionary Anthropology program.

SPECIALIST PROGRAM IN SOCIO-CULTURAL ANTHROPOLOGY (ARTS)

The Specialist Program in Socio-Cultural Anthropology is intended to provide the professionally oriented student with background preparation of sufficient breadth and depth to pursue specialized training at the graduate level. It is also designed to offer interested students a course structure as background for a wide range of occupations and professions. Students are encouraged to consult with the Undergraduate Counsellor regarding the selection of a course sequence appropriate to their interests and objectives. In exceptional circumstances, supervised research and reading courses are available at the C- and D-levels (ANTC03H3, ANTD31H3). These courses require special arrangements prior to registration. Read the descriptions for these courses carefully as restrictions apply.

Program Requirements
The Program requires completion of 12.0 credits, as indicated below

1. 1.0 credit as follows:
ANTA01H3 Introduction to Anthropology: Becoming Human
ANTA02H3 Introduction to Anthropology: Society, Culture and Language

2. ANTB19H3 Ethnography and the Comparative Study of Human Societies

3. ANTB20H3 Ethnography of the Global Contemporary

4. 10.0 credits at the B-level *or* above, of which at least 5.0 credits must be at the C- *or* D-level, including at least 1.5 credits at the D-level. Students must ensure that as part of Requirement 4, they complete:
a. At least 1.0 credit in area studies courses: ANTB05H3, ANTB16H3, ANTB18H3, ANTB26H3/ (ANTC89H3), ANTB65H3, or ANTD07H3
b. At least 0.5 credit in Ethnographic methods: ANTC70H3
c. At least 0.5 credit from among ANTD05H3, ANTD06H3, or ANTD15H3

Note: ANTB19H3 and ANTB20H3 are prerequisites for C- and D-level courses in the Socio-Cultural Anthropology program.

MAJOR PROGRAM IN EVOLUTIONARY ANTHROPOLOGY (SCIENCE)

The Major program in Evolutionary Anthropology provides a course structure for those students desiring to expand upon or supplement other areas of academic interest by taking advantage of Anthropology's unique global, chronological, and biological perspective on the human condition.

Program Requirements
The Program requires completion of 8.0 credits in Anthropology including:

1. 1.0 credit as follows:
ANTA01H3 Introduction to Anthropology: Becoming Human
ANTA02H3 Introduction to Anthropology: Society, Culture and Language

2. ANTB14H3 Biological Anthropology: Beginnings

3. ANTB15H3 Contemporary Human Evolution and Variation

4. 6.0 credits at the B-level or above, of which at least 3.0 credits must be at the C- *or* D-level. At least 5.5 credits must be composed of ANT courses identified as "Science credit" in the UTSC Academic Calendar.

Note: ANTB14H3 and ANTB15H3 are prerequisites for C- and D-level courses in the Evolutionary Anthropology program.

MAJOR PROGRAM IN SOCIO-CULTURAL ANTHROPOLOGY (ARTS)

The Major program in Socio-Cultural Anthropology provides a course structure for those students desiring to expand upon or supplement other areas of academic interest by taking advantage of Anthropology's unique global, chronological, and biological perspective on the human condition.

Program Requirements
The Program requires completion of 8.0 credits in Anthropology including:

1. 1.0 credit as follows:
ANTA01H3 Introduction to Anthropology: Becoming Human
ANTA02H3 Introduction to Anthropology: Society, Culture and Language

2. ANTB19H3 Ethnography and the Comparative Study of Human Societies

3. ANTB20H3 Ethnography of the Global Contemporary

4. 6.0 credits at the B-level or above, of which at least 3.0 credits must be at the C- *or* D-level. Students must ensure that as part of Requirement 4, they complete:
a. At least 1.0 credits in area studies courses ANTB05H3, ANTB16H3, ANTB18H3, ANTB26H3/ (ANTC89H3), ANTB65H3, ANTD07H3
b. 0.5 credit from Ethnographic methods: ANTC70H3
c. At least 0.5 credit from among ANTD05H3, ANTD06H3, ANTD15H3

Note: ANTB19H3 and ANTB20H3 are prerequisites for C- and D-level courses in the Socio-Cultural Anthropology program.

MINOR PROGRAM IN ANTHROPOLOGY (ARTS)

The Minor Program in Anthropology provides a course structure for students majoring or specializing in other disciplines who want some directed exposure to anthropological thought.

Program Requirements
The Program requires completion of 4.0 credits as follows:

1. 1.0 credits as follows:
ANTA01H3 Introduction to Anthropology: Becoming Human
ANTA02H3 Introduction to Anthropology: Society, Culture and Language

2. At least 1.0 credit from among the following:
ANTB14H3 Biological Anthropology: Beginnings
ANTB15H3 Contemporary Human Evolution and Variation

ANTB19H3 Ethnography and the Comparative Study of Human Societies
ANTB20H3 Ethnography of the Global Contemporary

3. 2.0 additional credits in Anthropology, of which 1.0 credit must be at the C- or D-level.

CERTIFICATE IN BIOARCHAEOLOGY

The Certificate in Bioarchaeology will provide students with concentrated training in Bioarchaeology, the subdiscipline of Archaeology that focusses on the study of biological materials from archaeological sites, with a particular emphasis on skeletal remains (both human and non-human). Note: This certificate will be available to students as of January 1, 2020.

Enrolment Requirements

Students must be enrolled in either the Specialist or Major program in Evolutionary Anthropology

Certificate Requirements

Students must complete a total of 2.0 credits as follows*:
ANTB80H3
ANTC47H3
ANTC48H3
ANTD35H3

*Students must earn an average GPA of 2.7 across the four courses to be awarded the Certificate.

CERTIFICATE IN EVOLUTIONARY ANATOMY

This certificate will provide students with detailed knowledge of skeletal and dental anatomy in humans and related taxa from diverse perspectives, as well as a solid understanding of the evolutionary processes that led to that anatomy.

Enrolment Requirements
Successful completion of an undergraduate degree with a CGPA of 3.0 with a Major or Specialist in any science discipline is required to enrol in the certificate program. Students who have previously completed courses identified as requirements or options in the Certificate can substitute up to 1.0 credit in previously completed courses for the Certificate requirements. Students are not eligible for admission to the Certificate if they have already completed more than 2.0 credits of the included courses (or their equivalents from other universities).

Certificate Requirements

Students must complete 3.0 credits as follows:

1. Core required courses (1.5 credit):
ANTB14H3*
ANTC47H3
ANTC48H3

2. Advanced courses (1.5 credits):
Choose 3 from:

ANTC16H3
ANTC17H3**
ANTC99H3
ANTD17H3
ANTD35H3
ANTD99H3

Notes:
*ANTA01H3 is a prerequisite for ANTB14H3.
**[ANTA01H3 and ANTA02H3] are prerequisites for ANTC17H3.

Students seeking to complete the certificate who have not completed ANTA01H3 and ANTA02H3 will be assessed for admission to ANTB14H3 and/or ANTC17H3 based on their background. In particular, students whose undergraduate degree included Biology courses will normally be permitted to take ANTB14H3 and ANTC17H3 without the prerequisite(s).

Anthropology Courses

ANTA01H3 - Introduction to Anthropology: Becoming Human

An introduction to Biological Anthropology and Archaeology. Concentrates on the origins and evolution of human life, including both biological and archaeological aspects, from the ancient past to the present.
Science credit

Exclusion: ANT100Y, ANT101H
Breadth Requirements: Natural Sciences

ANTA02H3 - Introduction to Anthropology: Society, Culture and Language

How does an anthropological perspective enable us to understand cultural difference in an interconnected world? In this course, students will learn about the key concepts of culture, society, and language. Drawing upon illustrations of family, economic, political, and religious systems from a variety of the world's cultures, this course will introduce students to the anthropological approach to studying and understanding human ways of life.

Exclusion: ANT100Y, ANT102H
Breadth Requirements: Social & Behavioural Sciences

ANTB01H3 - Political Ecology

This course examines human-environmental relations from an anthropological perspective. Throughout the semester, we explore how peoples from different parts of the globe situate themselves within culturally constructed landscapes. Topics covered include ethnoecology, conservation, green consumerism, the concept of 'wilderness', and what happens when competing and differentially empowered views of the non-human world collide.

Prerequisite: ANTA02H3
Breadth Requirements: Social & Behavioural Sciences

ANTB05H3 - Culture and Society in Africa

An overview of the range and diversity of African social institutions, religious beliefs and ritual, kinship, political and economic organization, pre-colonial, colonial and post-colonial experience.
Same as AFSB05H3
Area course

Prerequisite: ANTA02H3 or AFSA01H3
Exclusion: AFSB05H3
Breadth Requirements: Social & Behavioural Sciences

ANTB09H3 - Culture through Film and Media

How is culture represented through visual media, from ethnographic and documentary film, to feature films, television, and new media? How do various communities re-vision themselves through mass, independent, or new media? This course investigates media and its role in the contemporary world from a socio-cultural anthropological perspective.

Prerequisite: ANTA02H3
Enrolment Limits: 120
Breadth Requirements: Social & Behavioural Sciences

ANTB14H3 - Biological Anthropology: Beginnings

This course surveys humanity's origin. The synthetic theory of evolution, its principles, processes, evidence and application underlie this course. Lecture topics and laboratory projects include: evolutionary theory, human variation, human adaptability, primate biology, and behaviour, taxonomy and classification, paleontological principles and human origins.
Science credit

Prerequisite: ANTA01H3
Exclusion: ANT203Y
Breadth Requirements: Natural Sciences

ANTB15H3 - Contemporary Human Evolution and Variation

Basic to the course is an understanding of the synthetic theory of evolution and the principles, processes, evidence and application of the theory. Laboratory projects acquaint the student with the methods and materials utilized Biological Anthropology. Specific topics include: the development of evolutionary theory, the biological basis for human variation, the evolutionary forces, human adaptability and health and disease.
Science credit
Same as HLTB20H3

Prerequisite: ANTA01H3 or [HLTA02H3 and HLTA03H3]
Exclusion: ANT203Y, HLTB20H3
Breadth Requirements: Natural Sciences

ANTB16H3 - Canadian Cultural Identities

This course explores the creation or invention of a Canadian national identity in literature, myth and symbolism, mass media, and political culture. Ethnographic accounts that consider First Nations, regional, and immigrant identities are used to complicate the dominant story of national unity.
Area course

Prerequisite: ANTA02H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Breadth Requirements: Social & Behavioural Sciences

ANTB18H3 - Development, Inequality and Social Change in Latin America

This course addresses Latin American systems of inequality in relation to national and transnational political economy, from colonialism to neoliberalism; how ideas of race, culture, and nation intersect with development thinking and modernization agendas; and how the poor and marginalized have accommodated, resisted, and transformed cultural and political domination.
Area course

Prerequisite: ANTA02H3
Exclusion: (ANTC08H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTB19H3 - Ethnography and the Comparative Study of Human Societies

This course introduces students to the theory and practice of ethnography, the intensive study of people's lives as shaped by social relations, cultural beliefs, and historical forces. Various topics, including religion, economics, politics, and kinship introduce students to key anthropological concepts and theoretical developments in the field.

Prerequisite: ANTA02H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Exclusion: ANT204Y, ANT207H1
Breadth Requirements: Social & Behavioural Sciences

ANTB20H3 - Ethnography and the Global Contemporary

How has the global flow of goods, persons, technologies, and capital reproduced forms of inequality? Using ethnography and other media, students examine globalization through topics like migration, race and citizenship, environmental degradation, and increasing violence while also discussing older anthropological concerns (e.g., kinship, religious practices, and authority). This course enhances students' understanding of ethnography, as a method for studying how actors engage and rework the global forces shaping their lives.

Prerequisite: ANTA02H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Exclusion: ANT204Y, ANT204H
Breadth Requirements: Social & Behavioural Sciences

ANTB22H3 - Primate Behaviour

This course will provide students with a general introduction to the behaviour and ecology of non-human primates (prosimians, Old and New World monkeys, and apes), with a particular emphasis on social behaviour. The course will consist of lectures reinforced by course readings; topics covered will include dominance, affiliation, social and mating systems, communication, and reproduction.
Science credit

Breadth Requirements: Social & Behavioural Sciences

ANTB26H3 - The Middle East and North Africa: Past and Present

What makes the Middle East and North Africa unique as a world region? This course considers the enduring impact of the past colonial encounter with the North Atlantic, as well as religious movements, nationalist histories, the impact of new communication technologies, and regional conflicts. Examples are drawn from a variety of contexts.

Prerequisite: ANTA02H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Exclusion: (ANTC89H3)
Breadth Requirements: Social & Behavioural Sciences

ANTB35H3 - Kids These Days: Youth, Language and Media

Around the world, youth is understood as the liminal phase in our lives. This course examines how language and new media technologies mark the lives of youth today. We consider social media, smartphones, images, romance, youth activism and the question of technological determinism. Examples are drawn from a variety of contexts.
Same as MDSB09H3

Prerequisite: ANTA02H3 or MDSA01H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Exclusion: MDSB09H3
Breadth Requirements: Arts, Literature & Language

ANTB36H3 - Anthropology of the End of the World

A cultural and comparative study of apocalyptic thought, practice, and representation around the world. It explores the conditions that inspire end times thinking and the uses it serves. Cases may include: millenarian movements, Revelation, colonialism, epidemics, infertility, deindustrialization, dystopian science fiction, nuclear war, climate change, and zombies.

Prerequisite: ANTA02H3
Breadth Requirements: Social & Behavioural Sciences

ANTB64H3 - Are You What You Eat?: The Anthropology of Food

This course examines the social significance of food and foodways from the perspective of cultural anthropology. We explore how the global production, distribution, and consumption of food, shapes or reveals, social identities, political processes, and cultural relations. Lectures are supplemented by hands-on tutorials in the Culinaria Kitchen Laboratory.

Prerequisite: ANTA02H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Exclusion: (ANTC64H3), ANT346H1
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

ANTB65H3 - An Introduction to Pacific Island Societies

Introduces the cultures and peoples of the Pacific. Examines the ethnography of the region, and the unique contributions that Pacific scholarship has made to the development of anthropological theory. Explores how practices of exchange, ritual, notions of gender, death and images of the body serve as the basis of social organization.
Area course

Prerequisite: ANTA02H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Exclusion: (ANTC65H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTB66H3 - Spiritual Paths: A Comparative Anthropology of Pilgrimage

A comparison of pilgrimage in different religious traditions, including Christian, Buddhist, Muslim, Hindu and those of indigenous communities (such as the Huichol of Mexico) will introduce students to the anthropology of religion. We will consider the aspirations and experiences of various pilgrims, while being mindful of cultural similarities and differences.

Prerequisite: ANTA02H3 or [any 4.0 credits]
Exclusion: RLG215H
Breadth Requirements: Social & Behavioural Sciences

ANTB80H3 - Introduction to Archaeology: Methods, Theories, and Practices

This course introduces students to the methods, theories, and practices used in Archaeology. Building on the course material presented in ANTA01H3, there will be a focus on important themes in Archaeology as a subfield of Anthropology, including: artefact analysis, dating methods, theories of the origins of social development/complexity, and careers in archaeology today. This course will include lectures and complimentary readings that will expose students to the important ideas within the field. There will also be an experiential component in the form of four hands-on workshops where students will get to interact with artefacts and gain experience using some of the methods discussed in class. There will be an extra workshop for students to get help with their essay outline.

Prerequisite: ANTA01H3
Exclusion: ANT200Y1, ANT200Y5, ANT200H5
Enrolment Limits: 150
Breadth Requirements: Natural Sciences

ANTC03H3 - Directed Reading in Anthropology

A directed exploration of specific topics in Anthropology, based on extensive investigation of the literature.
These courses are available in exceptional circumstances and do not duplicate regular course offerings. Students are advised that they must obtain consent from the supervising instructor before registering. Individual tutorials, as arranged. A minimum B plus average is normally required to be considered for these courses. May be science credit or area course depending on topic.

Prerequisite: Permission of the instructor and ANTA01H3 and ANTA02H3 and one B-level full credit in Anthropology in the appropriate sub-field (biological or cultural).

ANTC04H3 - Directed Reading in Anthropology

A directed exploration of specific topics in Anthropology, based on extensive investigation of the literature.
These courses are available in exceptional circumstances and do not duplicate regular course offerings. Students are advised that they must obtain consent from the supervising instructor before registering. Individual tutorials, as arranged. A minimum B plus average is normally required to be considered for these courses. May be science credit or area course depending on topic.

Prerequisite: Permission of the instructor and ANTA01H3 and ANTA02H3 and one B-level full credit in Anthropology in the appropriate sub-field (biological or cultural).

ANTC07H3 - Material Worlds

This course explores the intersection of the social and the material by examining the role of objects in making worlds. We examine the relationship between people, culture, and 'things' through topics such as commodification and consumption, collecting and representation, technology and innovation, art and artifact, and the social life of things.

Prerequisite: ANTB19H3 and ANTB20H3
Breadth Requirements: Social & Behavioural Sciences

ANTC09H3 - Sex, Love, and Intimacy: Anthropological Approaches to Kinship and Marriage

This course explores Anthropological approaches to kinship and family arrangements. In addition to examining the range of forms that family arrangements can take cross-culturally, we also examine how kinship configurations have changed within our own society in recent years. Topics to be covered include trans-national adoption, "mail-order-brides", new reproductive technologies and internet dating.

Prerequisite: ANTA02H3 and ANTB19H3 and ANTB20H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC10H3 - Anthropological Perspectives on Development

A critical probe of the origins, concepts, and practices of regional and international development in cultural perspective. Attention is paid to how forces of global capitalism intersect with local systems of knowledge and practice.

Prerequisite: ANTB19H3 and ANTB20H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC14H3 - Feminism and Anthropology

Examines why, when, and how gender inequality became an anthropological concern by tracing the development of feminist thought in a comparative ethnographic framework.

Prerequisite: ANTB19H3 and ANTB20H3
Breadth Requirements: Social & Behavioural Sciences

ANTC15H3 - Genders and Sexualities

Complements and extends ANTC14H3 by exploring cultural constructions of male and female in a range of societies and institutions.

Prerequisite: ANTB19H3 and ANTB20H3
Recommended Preparation: ANTC14H3
Breadth Requirements: Social & Behavioural Sciences

ANTC16H3 - The Foundation and Theory of Human Origins

The study of human origins in light of recent approaches surrounding human evolution. This course will examine some of these, particularly the process of speciation, with specific reference to the emergence of Homo. Fossils will be examined, but the emphasis will be on the interpretations of the process of hominisation through the thoughts and writings of major workers in the field.
Science credit

Prerequisite: ANTA01H3 or ANTB14H3 or ANTC17H3
Exclusion: (ANT332Y)
Breadth Requirements: Natural Sciences

ANTC17H3 - Human Origins: New Discoveries

The study of human origins in light of recent approaches surrounding human evolution. New fossil finds present new approaches and theory. This course will examine some of these, particularly the process of speciation and hominisation with specific reference to the emergence of Homo. Labs permit contact with fossils in casts.
Science credit

Prerequisite: ANTA01H3 and ANTA02H3
Exclusion: (ANT332Y)
Breadth Requirements: Natural Sciences

ANTC18H3 - Urban Anthropology

Urban spaces, neighbourhoods, and institutions have at different times been the focus of ethnographic studies of cities. In this course we will examine the role of culture, cultural diversity, space and performance in urban institutions.

Prerequisite: [ANTB19H3 and ANTB20H3] or [1.5 credits at the B-level in CIT courses]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC19H3 - Producing People and Things: Economics and Social Life

This course examines economic arrangements from an anthropological perspective. A key insight to be examined concerns the idea that by engaging in specific acts of production, people produce themselves as particular kinds of human beings. Topics covered include gifts and commodities, consumption, global capitalism and the importance of objects as cultural mediators in colonial and post-colonial encounters.

Prerequisite: ANTB19H3 and ANTB20H3
Breadth Requirements: Social & Behavioural Sciences

ANTC20H3 - Gifts, Money and Morality

What limits exist or can be set to commoditized relations? To what extent can money be transformed into virtue, private goods into the public "Good"? We examine the anthropological literature on gift-giving, systems of exchange and value, and sacrifice. Students may conduct a short ethnographic project on money in our own society, an object at once obvious and mysterious.

Prerequisite: ANTB19H3 and ANTB20H3
Breadth Requirements: Social & Behavioural Sciences

ANTC24H3 - Culture, Mental Illness, and Psychiatry

Does schizophrenia exist all over the world? Does depression look different in China than it does in Canada? By examining how local understandings of mental illness come into contact with Western psychiatric models, this course considers the role of culture in the experience, expression, definition, and treatment of mental illness and questions the universality of Western psychiatric categories.

Prerequisite: [ANTB19H3 and ANTB20H3] or HLTB42H3
Recommended Preparation: ANTC61H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC25H3 - Anthropology and Psychology

How are we to understand the relationship between psychological universals and diverse cultural and social forms in the constitution of human experience? Anthropology's dialogue with Freud; cultural construction and expression of emotions, personhood, and self.

Prerequisite: ANTB19H3 and ANTB20H3
Breadth Requirements: Social & Behavioural Sciences

ANTC27H3 - Primate Sociality

Primates are an intensely social order of animals showing wide variation in group size, organization and structure. Using an evolutionary perspective, this course will focus on why primates form groups and how their relationships with different individuals are maintained, with reference to other orders of animals. The form and function of different social systems, mating systems, and behaviours will be examined.

Prerequisite: ANTB22H3
Breadth Requirements: Natural Sciences

ANTC31H3 - Ritual and Religious Action

The nature and logic of ritual. Religious practices and projects; the interface of religion, power, morality, and history in the contemporary world.

Prerequisite: ANTB19H3 and ANTB20H3
Breadth Requirements: Social & Behavioural Sciences

ANTC32H3 - Political Anthropology

Can ethnographic research help us make sense of various political situations and conflicts around the world? In this course we will review different approaches to power and politics in classical and current anthropology. We will consider notions of the state, political agency and power, civil society, authoritarianism and democracy.

Prerequisite: ANTB19H3 and ANTB20H3
Breadth Requirements: Social & Behavioural Sciences

ANTC33H3 - Of Gods and Humans: Anthropological Approaches to Religion

Anthropological approaches to the origin and function of religion, and the nature of symbolism, myth, ritual, sorcery, spirit possession, and cosmology, with primary reference to the religious worlds of small-scale societies.

Prerequisite: ANTB19H3 and ANTB20H3
Exclusion: (ANTB30H3)
Breadth Requirements: Social & Behavioural Sciences

ANTC34H3 - The Anthropology of Transnationalism

This course considers dimensions of transnationalism as a mode of human sociality and site for cultural production. Topics covered include transnational labour migration and labour circuits, return migration, the transnational dissemination of electronic imagery, the emergence of transnational consumer publics, and the transnational movements of refugees, kinship networks, informal traders and religions.

Prerequisite: [ANTB19H3 and ANTB20H3] or [any 8.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC35H3 - Quantitative Methods in Anthropology

A consideration of quantitative data and analytical goals, especially in archaeology and biological anthropology. Some elementary computer programming, and a review of program packages suitable for anthropological analyses will be included.
Science credit

Prerequisite: ANTA01H3 and ANTA02H3
Exclusion: MGEB11H3/(ECMB11H3), PSYB07H3, (SOCB06H3), STAB22H3
Recommended Preparation: ANTB15H3
Breadth Requirements: Quantitative Reasoning

ANTC40H3 - Methods and Analysis in Anthropological Demography

An examination of the biological, demographic, ecological and socio-cultural determinants of human and non-human population structure and the interrelationships among them. Emphasis is given to constructing various demographic measures of mortality, fertility and immigration and their interpretation.
Science credit

Prerequisite: ANTB14H3 and ANTB15H3 and any statistics course
Breadth Requirements: Quantitative Reasoning

ANTC41H3 - Environmental Stress, Culture and Human Adaptability

Human adaptability refers to the human capacity to cope with a wide range of environmental conditions, including aspects of the physical environment like climate (extreme cold and heat), high altitude, geology, as well as aspects of the socio-cultural milieu, such as pathogens (disease), nutrition and malnutrition, migration, technology, and social change.
Science credit

Prerequisite: [ANTB14H3 and ANTB15H3] or [BIOA01H3 and BIOA02H3]
Breadth Requirements: Natural Sciences

ANTC42H3 - Human Growth, Development and Adaptability

Human adaptability refers to the human capacity to cope with a wide range of environmental conditions. Emphasis is placed on human growth and development in stressed and non-stressed environments. Case studies are used extensively.
Science credit

Prerequisite: ANTC41H3
Breadth Requirements: Natural Sciences

ANTC47H3 - Human and Primate Comparative Osteology

A "hands-on" Laboratory course which introduces students to analyzing human and nonhuman primate skeletal remains using a comparative framework. The course will cover the gross anatomy of the skeleton and dentition, as well as the composition and microstructure of bone and teeth. The evolutionary history and processes associated with observed differences in human and primate anatomy will be discussed.
Science credit

Prerequisite: ANTB14H3
Exclusion: ANT334H, ANT334Y
Enrolment Limits: 33
Breadth Requirements: Natural Sciences

ANTC48H3 - Advanced Topics In Human Osteology

A "hands-on" laboratory course which introduces students to the methods of analyzing human skeletal remains. Topics and analytic methods include: (1) the recovery and treatment of skeletal remains from archaeological sites; (2) odontological description, including dental pathology; (3) osteometric description; (4) nonmetric trait description; (5) methods of estimating age at death and sex; (6) quantitative analysis of metric and nonmetric data; and (7) paleopathology.
Science credit

Prerequisite: ANTC47H3
Exclusion: ANT334H, ANT334Y
Enrolment Limits: 33
Breadth Requirements: Natural Sciences

ANTC52H3 - Global Politics of Language

Language and ways of speaking are foundational to political cultures. This course covers the politics of language in the age of globalization, including multiculturalism and immigration, citizenship, race and ethnicity, post-colonialism, and indigeneity. Ethnographic examples are drawn from a variety of contexts, including Canadian official bilingualism and First Nations.

Prerequisite: ANTB19H3 and ANTB20H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language

ANTC53H3 - Anthropology of Media and Publics

How do media work to circulate texts, images, and stories? Do media create unified publics? How is the communicative process of media culturally-distinct? This course examines how anthropologists have studied communication that occurs through traditional and new media. Ethnographic examples drawn from several contexts.
Same as MDSC53H3

Prerequisite: [ANTB19H3 and ANTB20H3] or [MDSA01H3 and MDSB05H3 and ACMB01H3]
Exclusion: MDSC53H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language

ANTC58H3 - Constructing the Other: Orientalism through Time and Place

This course reflects on the concept of *Orientalism* and how it informs the fields of Classical Studies and Anthropology. Topics to be discussed include the Orientalization of the past and the origin, role, and significance of ancient representations of the "Other" in contemporary discourses.
Same as CLAC68H3 and HISC68H3

Prerequisite: 1.0 credit from the following: [CLAA04H3/HISA07H3, CLAB05H3/HISB10H3, CLAB06H3/HISB11H3, ANTA02H3, ANTB19H3, ANTB20H3, HISB02H3, AFSB50H3/HISB50H3, AFSB51H3/HISB51H3, HISB53H3, HISB57H3, HISB58H3, HISB60H3, HISB61H3, HISB62H3, HISB93H3, HISB94H3]
Exclusion: CLAC68H3, HISC68H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

ANTC59H3 - Anthropology of Language and Media

Anthropology studies language and media in ways that show the impact of cultural context. This course introduces this approach and also considers the role of language and media with respect to intersecting themes: ritual, religion, gender, race/ethnicity, power, nationalism, and globalization. Class assignments deal with lecturers, readings, and students' examples. Same as MDSC21H3

Prerequisite: [ANTB19H3 and ANTB20H3] or [MDSA01H3 and MDSB05H3 and ACMB01H3]
Exclusion: (ANTB21H3), (MDSB02H3), MDSC21H3
Breadth Requirements: Arts, Literature & Language

ANTC61H3 - Medical Anthropology: Illness and Healing in Cultural Perspective

Social and symbolic aspects of the body, the life-cycle, the representation and popular explanation of illness, the logic of traditional healing systems, the culture of North American illness and biomedicine, mental illness, social roots of disease, innovations in health care delivery systems.

Prerequisite: [ANTB19H3 and ANTB20H3] or HLTB42H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC62H3 - Medical Anthropology: Biological and Demographic Perspectives

The examination of health and disease in ecological and socio-cultural perspective. Emphasis is placed on variability of populations in disease susceptibility and resistance in an evolutionary context. With its sister course, ANTC61H3, this course is designed to introduce students to the basic concepts and principles of medical anthropology. Principles of epidemiology, patterns of inheritance and biological evolution are considered. Science credit

Prerequisite: ANTB14H3 and ANTB15H3
Breadth Requirements: Natural Sciences

ANTC66H3 - Anthropology of Tourism

This course explores the global cultural phenomenon of tourism. Using case studies and historical perspectives, we investigate the complex motivations and consequences of travel, the dimensions of tourism as development, the ways tourism commodifies daily life, the politics of tourism representation, and the intersection of travel, authenticity and modernity.

Prerequisite: ANTB19H3 and ANTB20H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC67H3 - Foundations in Epidemiology

Epidemiology is the study of disease and its determinants in populations. It is grounded in the biomedical paradigm, statistical reasoning, and that risk is context specific. This course will examine such issues as: methods of sampling, types of controls, analysis of data, and the investigation of epidemics.
Science credit

Prerequisite: Any B-level course in Anthropology or Biology and any statistics course.
Breadth Requirements: Quantitative Reasoning

ANTC68H3 - Deconstructing Epidemics

Colonization, globalization and socio-ecological factors play an important role in origin, maintenance and emergence of old and new infectious diseases in human populations such as yellow fever, cholera, influenza, SARS. Issues of co-morbidity, the epidemiological transition, syndemics and the impact of global warming on the emergence of new diseases are discussed.
Science credit

Prerequisite: Any B-level course in Anthropology or Biology and any statistics course.
Breadth Requirements: Natural Sciences

ANTC69H3 - Ideas That Matter: Key Themes and Thinkers in Anthropology

This course explores key themes, theories, and thinkers that have shaped anthropological thought, past and present. In any given year we will focus on the work of a particular important thinker or a school of thought. As we examine trends and approaches that have been influential to the field, we consider the debates these have generated, the ethnographic innovations they have inspired, and their relevance for core debates in anthropology. Topics and readings will be chosen annually by the instructor.

Prerequisite: ANTB19H3 and ANTB20H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the specialist program in Anthropology. Additional students will be admitted as space permits.

ANTC70H3 - Ethnographic Methods in Anthropology: Past, Present, and Future

This course is an exploration of the ongoing significance of the ethnographic method to the practice of research in socio-cultural anthropology. How and why have ethnographic methods become so central to anthropology, and what can we continue to learn with them? Students complement readings and lectures on theories and practices of ethnographic methods, both historical and contemporary, with exercises and assignments designed to provide first-hand experience in carrying out various techniques of ethnographic research. We also consider the unique ethical challenges of ethnographic methods and what it means to conduct ethically sound research.

Prerequisite: ANTB19H3 and ANTB20H3 and at least 0.5 credit at the C-level in socio-cultural anthropology courses
Exclusion: (ANTC60H3)
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students in the Specialist in Anthropology, followed by students in the Major in Anthropology, followed by students in the Specialist programs in International Development Studies.

ANTC80H3 - Race and Racism: Anthropological Insights

This course explores ideas of race and racist practice, both past and present. Socio-cultural perspectives on race and racism must address a central contradiction: although biological evidence suggests that racial categories are not scientifically valid, race and racism are real social phenomena with real consequences. In order to address this contradiction, the course will examine the myriad ways that race is produced and reproduced, as well as how racism is perpetuated and sustained.

Prerequisite: ANTB19H3 and ANTB20H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

ANTC88H3 - Special Topics

The topics presented in this course will represent a range of contemporary issues in Anthropology. Topics will vary by instructor and term.

Prerequisite: ANTB19H3 and ANTB20H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

ANTC99H3 - Primate Evolution

This course examines 65 million years of evolutionary history for non-human primates. The primary emphasis will be on the fossil record. Topics covered may include the reconstruction of behaviour from fossil remains, the evolution of modern primate groups, and the origins of the Order.

Prerequisite: ANTA01H3 or ANTB14H3
Enrolment Limits: 60
Breadth Requirements: Natural Sciences

ANTD01H3 - The Body in Culture and Society

An ethnographic inquiry into the culturally configured human body as a reservoir of experiential knowledge, focus of symbolism, and site of social, moral, and political control.

Prerequisite: ANTB19H3 and ANTB20H3 and at least 1.0 credit at the C-level in socio-cultural anthropology.
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

ANTD04H3 - The Anthropology of Violence and Suffering

This course examines the social life of violence, its cultural production and political effects in a global perspective. It asks how social worlds are made and unmade through, against, and after violent events, how violence is remembered and narrated, and how ethnography might respond to experiences of suffering, trauma, and victimhood.

Prerequisite: ANTB19H3 and ANTB20H3 and at least 0.5 credit at the C-level in Socio-Cultural Anthropology.
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

ANTD05H3 - Advanced Fieldwork Methods in Social and Cultural Anthropology

This course provides students with experience in carrying out ethnographic research in the Greater Toronto Area. Working with the Center for Ethnography, students define and execute individual research projects of their own design. The course provides students with the opportunity to present and discuss their unfolding research, as well as to present the findings of their research. This course is completed over two terms, and culminates in an original research paper.

Prerequisite: [ANTB19H3 and ANTB20H3 and [(ANTC60H3) or ANTC70H3]] and [an additional 1.0 credit at the C-level in socio-cultural anthropology] and [a cumulative GPA of 2.7, or permission of the instructor]. Preference will be given to Specialists and Majors in Anthropology, in that order.
Exclusion: (ANTD05Y3)
Enrolment Limits: 15
Breadth Requirements: Social & Behavioural Sciences

ANTD06H3 - Reading Ethnography

This course considers the reading and writing of ethnography - the classic genre of socio-cultural anthropology. We examine what differentiates ethnography from other forms of research and how to distinguish ethnographic works of high quality. Also considered are the politics of representation, including how ethnographic writing may reflect unequal relationships of power.

Prerequisite: ANTB19H3 and ANTB20H3 and at least 1.0 credit at the C-level in Socio-Cultural Anthropology.
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

ANTD07H3 - Advanced Regional Seminar

This course allows students to examine particular culture areas at an advanced level. Regions to be covered may include South Asia, East Asia, the Muslim World, Latin America, The Pacific, Europe, Africa, or North America. Specific case studies from the region will be used to highlight theoretical and ethnographic issues.

Prerequisite: ANTB19H3 and ANTB20H3 and [at least 0.5 credit from previous area course] and [at least 0.5 credit at the C-level in Socio-Cultural Anthropology].
Enrolment Limits: 25

ANTD10H3 - The Anthropology of 'Life' Itself

This course will examine cultural understandings of ‘life’ – What is life? What is a life? How do humans value (or alternatively not value) life in different social and cultural settings? What constitutes a ‘good life’? To what degree are cultural understandings of ‘life’ entangled with those of ‘death’.

Prerequisite: [ANTB19H3 and ANTB20H3] and [at least 1.0 credit at the C-level in socio-cultural anthropology courses]
Exclusion: (ANTC11H3)
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

ANTD13H3 - Frontiers of Anthropology: A Biological Perspective

An advanced seminar course primarily for majors and specialists in biological anthropology. Topic to be announced annually.

Prerequisite: ANTB14H3 and ANTB15H3 and at least 0.5 credit at the C-level in Biological Anthropology.
Enrolment Limits: 25

ANTD15H3 - Frontiers of Socio-Cultural Anthropology

An advanced seminar course primarily for specialists and majors in Anthropology. Topic changes annually and is linked to the theme of our seminar series for the year. Students will attend talks by 2-3 guest speakers in addition to the regular seminar. In previous years, the theme has been Masculinities, Pilgrimage, History and Historicities.

Prerequisite: ANTB19H3 and ANTB20H3 and at least 1.0 credit at the C-level in Socio-Cultural Anthropology
Enrolment Limits: 25

ANTD16H3 - Biomedical Anthropology

This course is designed for advanced students seeking an intensive examination of specific problems in medical Anthropology. Problems to be discussed include: genetic disorders in families and populations, the interaction of malnutrition and infectious diseases in human populations, chronic non-infectious diseases in populations today, and epidemiology and medical anthropology as complementary disciplines.
Science credit

Prerequisite: ANTC62H3 and 1.0 credit at the C-level in Biological Anthropology
Breadth Requirements: Natural Sciences

ANTD17H3 - Medical Osteology: Public Health Perspectives on Human Skeletal Health

This seminar course will examine the clinical, epidemiological and public health literature on osteoporosis and other conditions impacting skeletal health. The course will also explore the potential economic impacts of osteoporosis on Canada's health care system given emerging demographic changes.
Science credit

Prerequisite: ANTC47H3 and ANTC48H3
Breadth Requirements: Natural Sciences

ANTD19H3 - Primate Conservation

A large percentage of nonhuman primate species are at risk of extinction due mostly to human-induced processes. Relying on theory from Conservation Biology, this course will consider the intrinsic and extrinsic factors that lead to some primate species being threatened, while others are able to deal with anthropogenic influences. Students will critically examine conservation tactics and the uniqueness of each situation will be highlighted.

Prerequisite: ANTB22H3
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

ANTD20H3 - Culture and Community

A field-based research seminar exploring the cultural dimensions of community and sense of place. Partnering with community-based organizations in Scarborough and the GTA, students will investigate topical issues in the immediate urban environment from an anthropological perspective. Yearly foci may include food, heritage, diaspora, and family.

Prerequisite: ANTB19H3 and ANTB20H3 and [at least 1.0 credit at the C-level in Socio-Cultural Anthropology courses]
Recommended Preparation: (ANTC60H3) or ANTC70H3
Enrolment Limits: 15
Breadth Requirements: Social & Behavioural Sciences

ANTD22H3 - Theory and Methodology in Primatology

This seminar course will examine contemporary theory and questions in primatology and carefully examine the types of data that researchers collect to answer their research questions.
Science credit

Prerequisite: ANTB22H3
Enrolment Limits: 25

ANTD25H3 - Medical Primatology: Public Health Perspectives on Zoonotic Diseases

This course will examine the social and cultural contexts of animal-to-human disease transmission globally, and the public risks associated zoonoses present here in Canada. The course will incorporate both anthropological and epidemiological perspectives.
Science credit

Prerequisite: ANTB14H3 and ANTB15H3 and (HLTA01H3) and [ANTC35H3 or (SOCB06H3) or STAB22H3]
Breadth Requirements: Natural Sciences

ANTD31H3 - Advanced Research in Anthropology

Directed critical examination of specific problems in Anthropology, based on library and/or field research.
These courses are available in exceptional circumstances and do not duplicate regular course offerings. Students are advised that they must obtain consent from the supervising instructor before registering. Individual tutorials, as arranged. A minimum B plus average is normally required to be considered for these courses. May be science credit or area course depending on topic.

Prerequisite: ANTA01H3 and ANTA02H3 and [2.0 credits in Anthropology, of which 1.0 credit must be at the the C-level] and permission of the instructor.

ANTD32H3 - Advanced Research in Anthropology

Directed critical examination of specific problems in Anthropology, based on library and/or field research.
These courses are available in exceptional circumstances and do not duplicate regular course offerings. Students are advised that they must obtain consent from the supervising instructor before registering. Individual tutorials, as arranged. A minimum B plus average is normally required to be considered for these courses. May be science credit or area course depending on topic.

Prerequisite: ANTA01H3 and ANTA02H3 and 2.0 full credits in Anthropology, one of which must be at the C-level. Permission of the instructor.

ANTD35H3 - Bioarchaeology

This course will focus on a new direction in anthropology, exploring the potential of skeletal remains in reconstructing past lifeways. This seminar style class will build upon concepts introduced in Human Osteology courses. Additionally, more advanced methods of reconstructing patterns of subsistence, diet, disease, demography and physical activity.

Prerequisite: ANTC47H3 and ANTC48H3
Exclusion: ANT434H, ANT441H
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

ANTD40H3 - Topics in Emerging Scholarship in Evolutionary Anthropology

Taught by an advanced PhD student or postdoctoral fellow, and based on his or her doctoral research and area of expertise, this course presents a unique opportunity to explore intensively a particular Evolutionary or Archaeological Anthropology topic in-depth. Topics vary from year to year.

Prerequisite: [ANTB14H3 and ANTB15H3] and [at least 2.0 credits at the C-level in Evolutionary Anthropology]
Enrolment Limits: 30
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist in Anthropology. Additional students will be admitted as space permits.

ANTD41H3 - Topics in Emerging Scholarship in Socio-Cultural Anthropology

Taught by an advanced PhD student or postdoctoral fellow, and based on his or her doctoral research and area of expertise, this course presents a unique opportunity to explore intensively a particular Socio-Cultural or Linguistic Anthropology topic in-depth. Topics vary from year to year.

Prerequisite: [ANTB19H3 and ANTB20H3] and at least 2.0 credits at the C-level in Sociocultural Anthropology]
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist program in Anthropology. Additional students will be admitted as space permits.

ANTD71H3 - Community Engaged Fieldwork with Food

This research seminar uses our immediate community of Scarborough to explore continuity and change within diasporic foodways. Students will develop and practise ethnographic and other qualitative research skills to better understand the many intersections of food, culture, and community. This course culminates with a major project based on original research.
Same as HISD71H3

Prerequisite: HISB14H3/(HISC14H3) or HISC04H3 or [2.0 credits in ANT courses of which 1.0 credit must be at the C-level] or permission of the instructor
Exclusion: HISD71H3
Recommended Preparation: ANTB64H3, ANTC70H3
Enrolment Limits: 15
Breadth Requirements: Social & Behavioural Sciences

ANTD99H3 - Advanced Topics in Primate Evolution

This course will examine questions of particular controversy in the study of Primate Evolution. Topics to be covered may include the ecological context of primate origins, species recognition in the fossil record, the identification of the first anthropoids, and the causes of extinction of the subfossil lemurs.
Science credit

Prerequisite: ANTB14H3 and at least 1.0 credit at the C-level in Biological Anthropology.
Exclusion: ANTD13H3 if completed in the 2010/2011 academic year
Recommended Preparation: ANTC99H3
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

Art History and Visual Culture

Faculty List

- M. Gervers, A.B. (Princeton), M.A. (Poitiers), Ph.D. (Toronto), Professor
- Y. Gu, M.Phil., Ph.D. (London), Associate Professor
- E. Harney, M.A. (Harvard), M.A. (Washington), Ph.D. (London), Associate Professor
- E. Webster, B.A., M.A. (Toronto), Ph.D. (Case Western Reserve), Associate Professor, Teaching Stream

ACM Program Manager: M. Hussain Email: manaal.hussain@utoronto.ca

Art History and Visual Culture at UTSC focuses on the global and contemporary and also gives you a solid grounding in approaches to visual materials produced across time, cultures, classes, gender, and geography. You will learn to look, read and write critically about the visual, not only in the classroom but also through the real-world learning experience in galleries and museums and in other urban situations. You will understand how and why histories are written, how representations are formed, and how artists, critics, curators, dealers, and art historians (in other words, art world players) enter a shared discourse. The courses reveal the multiplicity of perspectives with which art may be approached, using recent methodologies that consider the works of art in the specific visual cultures of their day and in the social, political, and economic contexts in which the artists lived and worked.

For more information, please review the Art History and Visual Study Guide.

Planning a Program in Art History and Visual Culture

Guidelines for first-year course selection:
Students intending to complete a Major or Minor Program in Art History and Visual Culture should include VPHA46H3 in their first-year course selection. VPHA46H3 familiarizes students with the necessary historical, theoretical, and methodological foundations of the discipline of Art History specifically and Humanities more generally. Moreover, it will introduce students to the kinds of reading, research and writing skills they will be expected to develop in the program.

Students are strongly encouraged to enrol in VPHB39H3 and ACMB01H3 early in their program of study, and certainly by the beginning of their second year of study. Both of these courses further focus on studies to address deeper questions in the disciplines of Art History and Visual Culture.

Following the completion of these three foundational courses, students are encouraged to build a depth of learning in focused areas of concentration. The table below identifies the four areas of focus in Art History and Visual Culture. Students are encouraged to choose their courses from one or two of these areas.

Art History and Visual Culture Areas of Focus Table:

Creative Cities	Spectacle and Display	Dialogues with History	Con Id
VPHB58H3 VPHB68H3 VPHB74H3 VPHC42H3 VPHC68H3 VPHC74H3	VPHB59H3 VPHB73H3 VPHB78H3 VPHB79H3 VPHC53H3	VPHB53H3 VPHB63H3 VPHC63H3 VPHC41H3 VPHC52H3 VPHD48H3	VPHB50 VPHB64 VPHB77 VPHC75 VPHC45 VPHC73

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Art History And Visual Culture Programs

MAJOR PROGRAM IN ART HISTORY AND VISUAL CULTURE (ARTS)

Undergraduate Advisor Email: art-history-program-supervisor@utsc.utoronto.ca

Program Requirements
This program requires the completion of 7.0 credits in Art History and Visual Culture (VPH) as follows:

1. Courses at the A-level (0.5 credit):
VPHA46H3 Ways of Seeing: Introduction to Art Histories

2. Courses at the B-level (1.0 credit):
VPHB39H3 Ten Key Words in Art History: Unpacking Methodology
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs

3. Courses at the C-level (1.5 credits):
VPHC49H3 Advanced Studies in Art Theory
VPHC54H3 Art Writing
VPHC72H3 Art, the Museum, and the Gallery

4. Courses at the D-level (0.5 credit):
VPHD48H3 Advanced Seminar in Art History and Visual Culture

5. 3.5 additional credits in VPH courses, including:
(i) At least 1.5 credits must be in courses at the C- or D-level;
(ii) Must include diversity in the time-period and cultural geography;
(iii) Must include at least 1.0 credit dealing with periods prior to 1800;
(iv) Must include at least 1.0 credit dealing with periods after 1800; and
(v) Must include 0.5 credit dealing with the arts of Asia, Africa, or the Diaspora

Courses dealing with periods prior to 1800: VPHB53H3, VPHB63H3, VPHB64H3, VPHB74H3, VPHC41H3, VPHC42H3, VPHC53H3, VPHC63H3, (VPHD44H3)

Courses dealing with periods after 1800: VPHB58H3, VPHB59H3, VPHC45H3, VPHC68H3, VPHC73H3, (VPHD43H3), as well as (VPAC47H3) and (VPAC48H3).

Courses on the art of Africa: VPHB50H3, (VPHB65H3).

Courses on the art of Asia: VPHB73H3, VPHB77H3, VPHC74H3.

Courses in which content may vary, and which may deal with the art of any place or period: VPHB68H3, VPHB78H3, VPHB79H3, VPHC49H3, (VPHC51H3), VPHC54H3, VPHC75H3 and VPHD48H3.

Students interested in curatorial studies courses should consider the Minor in Curatorial Studies (Arts).

MINOR PROGRAM IN ART HISTORY AND VISUAL CULTURE (ARTS)

Undergraduate Advisor Email: art-history-program-supervisor@utsc.utoronto.ca

Program Requirements
This program requires the completion of 4.0 credits in Art History and Visual Culture (VPH) as follows:

1. Courses at the A-level (0.5 credit):
VPHA46H3 Ways of Seeing: Introduction to Art Histories

2. Courses at the B-level (2.0 credits):
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
VPHB39H3 Ten Key Words in Art History: Unpacking Methodology
and
Additional 1.0 credit at the B-level in VPH courses

3. Courses at the C- and or D-level (1.5 credits):
1.5 credits at the C- or D-level in VPH courses

Art History And Visual Culture Courses

VPHA46H3 - Ways of Seeing: Introduction to Art Histories

How and why are objects defined as Art? How do these definitions vary across cultures and time periods? Studying different approaches to writing art history and considering a wide range of media from photography to printmaking and installation arts.

Exclusion: (FAH100Y), FAH101H
Breadth Requirements: Arts, Literature & Language

VPHB39H3 - Ten Key Words in Art History: Unpacking Methodology

Key concepts in art history, including intention, meaning, style, materiality, identity, production, reception, gender, visuality, and history. Students will explore critical questions such as whether and how to read artist's biographies into their art. This course helps students understand the discipline and develops critical thinking and research skills required in advanced courses.

Prerequisite: VPHA46H3 or ACMA01H3
Exclusion: FAH102H
Breadth Requirements: Arts, Literature & Language

VPHB50H3 - Africa Through the Photographic Lens

The centrality of photographic practice to African cultures and histories from the period of European imperialism, the rise of modernist "primitivism" and the birth of ethnology and anthropology to contemporary African artists living on the continent and abroad.

Prerequisite: VPHA46H3 or ACMA01H3 or AFSA01H3
Breadth Requirements: Arts, Literature & Language

VPHB53H3 - Medieval Art

The origins of European artistic traditions in the early Christian, Mediterranean world; how these traditions were influenced by classical, Byzantine, Moslem and pagan forms; how they developed in an entirely new form of artistic expression in the high Middle Ages; and how they led on to the Renaissance.

Prerequisite: VPHA46H3
Exclusion: FAH215H, FAH216H
Breadth Requirements: Arts, Literature & Language

VPHB58H3 - Modern Art and Culture

A study of nineteenth and twentieth-century arts and visual media, across genres and cultures. What did modernity mean in different cultural contexts? How is 'modern' art or 'modernism' defined? How did the dynamic cultural, economic, and socio-political shifts of the globalizing and industrializing modern world affect the visual ars and their framing?

Prerequisite: VPHA46H3
Exclusion: FAH245H, FAH246H
Breadth Requirements: Arts, Literature & Language

VPHB59H3 - Current Art Practices

Shifts in theory and practice in art of the past fifty years. Studying selected artists' works from around the world, we explore how notions of modern art gave way to new ideas about media, patterns of practice, and the relations of art and artists to the public, to their institutional contexts, and to globalized cultures.

Prerequisite: VPHA46H3 or VPHB39H3
Exclusion: FAH245H, FAH246H
Breadth Requirements: Arts, Literature & Language

VPHB63H3 - Fame, Glory and Spectacle: 14th-16th Century Art in Italy

This course is an introduction to art and visual culture produced in Italy ca. 1350-1550. Students will explore new artistic media and techniques, along with critical issues of social, cultural, intellectual, theoretical and religious contexts that shaped the form and function of art made during this era.

Prerequisite: VPHA46H3
Exclusion: FAH230H
Breadth Requirements: Arts, Literature & Language

VPHB64H3 - Baroque Visions

This course introduces the art and culture of 17th century Europe and its colonies. Art of the Baroque era offers rich opportunities for investigations of human exploration in geographic, spiritual, intellectual and political realms. We will also consider the development of the artist and new specializations in subject and media.

Prerequisite: VPHA46H3
Exclusion: FAH231H, FAH279H
Recommended Preparation: VPHB63H3 or VPHB74H3
Breadth Requirements: Arts, Literature & Language

VPHB68H3 - Art and the Everyday: Mass Culture and the Visual Arts

This course explores the relationship between visuality and practices of everyday life. It looks at the interaction of the political, economic and aesthetic aspects of mass media with the realm of "fine" arts across history and cultures. We will explore notions of the public, the mass, and the simulacrum.

Prerequisite: VPHA46H3
Breadth Requirements: Arts, Literature & Language

VPHB73H3 - Visualizing Asia

A survey of the art of China, Japan, Korean, India, and Southeast Asia. We will examine a wide range of artistic production, including ritual objects, painting, calligraphy, architectural monuments, textile, and prints. Special attention will be given to social contexts, belief systems, and interregional exchanges.
Same as GASB73H3

Prerequisite: ACMA01H3 or VPHA46H3 or GASA01H3
Exclusion: GASB73H3, FAH260H
Breadth Requirements: Arts, Literature & Language

VPHB74H3 - Art in Early Modern Europe: Renaissances Outside of Italy

This course explores the rich visual culture produced in northern and central Europe 1400-1600. Topics such as the rise of print culture, religious conflict, artistic identity, contacts with other cultures and the development of the art market will be explored in conjunction with new artistic techniques, styles and materials.

Prerequisite: VPHA46H3
Exclusion: FAH230H, FAH274H
Breadth Requirements: Arts, Literature & Language

VPHB77H3 - Modern Asian Art

An introduction to modern Asian art through domestic, regional, and international exhibitions. Students will study the multilayered new developments of art and art institutions in China, Japan, Korea, India, Thailand, and Vietnam, as well as explore key issues such as colonial modernity, translingual practices, and multiple modernism.
Same as GASB77H3

Prerequisite: ACMA01H3 or VPHA46H3 or GASA01H3
Exclusion: GASB77H3, FAH262H
Breadth Requirements: Arts, Literature & Language

VPHB78H3 - Our Town, Our Art: Local Collections I

Local arts institutions are often taken for granted but understanding how and why collections are formed, why they are significant, and how they relate to larger art historical contexts provides important object-based learning opportunities. Students will explore these issues using a focused collection in the Royal Ontario Museum, the Aga Khan Museum or the Textile Museum.

Prerequisite: VPHA46H3
Breadth Requirements: Arts, Literature & Language

VPHB79H3 - Our Town, Our Art: Local Collections II

Local arts institutions are often taken for granted but understanding how and why collections are formed, why they are significant, and how they relate to larger art historical contexts provides important object-based learning opportunities. Students will explore these using a focused collection in the Art Gallery of Ontario.

Prerequisite: VPHA46H3
Breadth Requirements: Arts, Literature & Language
Note: Some classes will be held at the museum; students should be prepared to travel.

VPHC41H3 - Carolingian and Romanesque Art

Major artistic and architectural monuments of Europe from the Carolingian renaissance to the renaissance of the twelfth century, considered in relation to geographical context, to monasticism and pilgrimage, to artistic developments of the contemporary Mediterranean world, and to the art and architecture of the later Roman Empire, Byzantium and Armenia, Islam and the art of the invasion period.

Prerequisite: VPHB53H3
Exclusion: (VPHB42H3), FAH215H
Breadth Requirements: Arts, Literature & Language

VPHC42H3 - Gothic Art and Architecture

Current scholarship is expanding and challenging how we decide "what is Gothic?" We will examine a variety of artworks, considering artistic culture, social, cultural, and physical contexts as well. Style, techniques, patronage, location in time and space, and importance of decoration (sculpture, stained glass, painting, tapestry) will be among topics discussed.

Prerequisite: VPHB53H3 and ACMB01H3
Exclusion: FAH328H, FAH351H (UTM only), (FAH369H)
Breadth Requirements: Arts, Literature & Language

VPHC45H3 - Seminar in Modern and Contemporary Art

Special topics in twentieth-century painting and sculpture. The subject will change from time to time. After introductory sessions outlining the subject and ways of getting information about it, seminar members will research and present topics of their choice.

Prerequisite: 1.0 credit at the B-level in Modern Art History courses.
Breadth Requirements: Arts, Literature & Language

VPHC49H3 - Advanced Studies in Art Theory

The class will read selected recent cultural theory and art theory and consider its implications for a variety of works of art, and will investigate selected exhibition critiques and the critical discourse surrounding the oeuvres of individual artists.

Prerequisite: VPHA46H3 and VPHB39H3 and ACMB01H3
Corequisite: 1.0 credit at the B-level in VPH and/or VPS courses
Breadth Requirements: Arts, Literature & Language

VPHC52H3 - Ethiopia: Seeing History

This course uses a focus on material history and visual culture to explore Ethiopia from the fourth through the nineteenth century, with particular emphasis on the Christian Church, the monarchy, links with both the Mediterranean world and the Indian subcontinent, and the relationship of individuals to their social, economic, artistic and geographic environments.
Same as AFSC52H3 and HISC52H3

Prerequisite: [1.0 credit in History] or [VPHA46H3 and ACMB01H3 and an additional 1.0 credit in VPH courses]
Exclusion: AFSC52H3, HISC52H3
Breadth Requirements: History, Philosophy & Cultural Studies

VPHC53H3 - The Silk Routes

The Silk Routes were a lacing of highways connecting Central, South and East Asia and Europe. Utilizing the Royal Ontario Museum's collections, classes held at the Museum and U of T Scarborough will focus on the art produced along the Silk Routes in 7th to 9th century Afghanistan, India, China and the Taklamakhan regions.
Same as GASC53H3

Prerequisite: 1.0 credit in art history or in Asian or medieval European history.
Exclusion: GASC53H3
Breadth Requirements: Arts, Literature & Language

VPHC54H3 - Art Writing

Art criticism as a complex set of practices performed not only by critics, art historians, curators and the like, but also by artists (and collectors). The traditional role of art critics in the shaping of an art world, and the parallel roles played by other forms of writing about art and culture (from anthropology, sociology, film studies).

Prerequisite: 2.0 credits at the B-level in VPA, VPH, and/or VPS courses.
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language

VPHC63H3 - Explorations in Early Modern Art

This seminar-format course will offer students the opportunity to investigate critical theories and methodologies of the early modern period (roughly 1400-1700). Focusing on such topics as a single artist, artwork or theme, students will become immersed in an interdisciplinary study that draws on impressive local materials from public museum and library collections.

Prerequisite: VPHA46H3 and [one of VPHB63H3 or VPHB64H3 or VPHB74H3].
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPHC68H3 - Art in Global Cities

This course looks at the global city as a hub for the creation of visual, performing arts and architecture. How have cyberspace and increased transnational flows of art and artists changed the dynamic surrounding urban arts? What are the differences between the arts within the modern and global contemporary city?

Prerequisite: VPHB58H3 or VPHB59H3
Exclusion: (VPHC52H3)
Breadth Requirements: Arts, Literature & Language

VPHC72H3 - Art, the Museum, and the Gallery

Art and the settings in which it is seen in cities today. Some mandatory classes to be held in Toronto museums and galleries, giving direct insight into current exhibition practices and their effects on viewer's experiences of art; students must be prepared to attend these classes. Same as CRTC72H3

Prerequisite: ACMB01H3 and CRTB01H3 and CRTB02H3
Exclusion: CRTC72H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPHC73H3 - Home, Away and In Between: Artists, Art, and Identity

The interplay among visual, performing and literary arts and experience of exile, diaspora, displacement and placemaking: how the nomadic, transitional nature of today's world influences contemporary artists' practices. Readings from art history, visual anthropology, cultural studies, ethnic studies and literary criticism. Considerations of memory, autobiography, community and liminality in relation to experiences of local Canadian artists.

Exclusion: (VPAB09H3)
Breadth Requirements: Social & Behavioural Sciences

VPHC74H3 - A Tale of Three Cities: Introduction to Contemporary Art in China

An introduction to Chinese contemporary art focusing on three cities: Beijing, Shanghai, and Guangzhou. Increasing globalization and China's persistent self-renovation has brought radical changes to cities, a subject of fascination for contemporary artists. The art works will be analyzed in relation to critical issues such as globalization and urban change.
Same as GASC74H3

Prerequisite: 2.0 credits at the B-level in Art History, Asian History, and/or Global Asia Studies courses, including at least 0.5 credit from the following: VPHB39H3, VPHB73H3, HISB58H3, (GASB31H3), GASB33H3, or (GASB35H3).
Exclusion: GASC74H3
Breadth Requirements: Arts, Literature & Language

VPHC75H3 - The Artist, Maker, Creator

This course focuses on the ideas, career and œuvre of a single artist. Exploration and comparison of works across and within the context of the artist's output provides substantial opportunities for deeper levels of interpretation, understanding and assessment. Students will utilize and develop research skills and critical methodologies appropriate to biographical investigation.

Prerequisite: VPHB39H3 and ACMB01H3 and [an additional 1.0 credit at the B-level in Art History, Studio Art or Arts Management courses]
Breadth Requirements: Arts, Literature & Language

VPHD42Y3 - Supervised Reading in Art History

A course offering the opportunity for advanced investigation of an area of interest; for students who are nearing completion of art history programs and who have already acquired independent research skills. Students must locate a willing supervisor and topics must be identified and approved by the end of the previous term.

Prerequisite: 1.0 credit at the C-level in art history. Students are advised that they must obtain consent from the supervising instructor before registering for these courses.

VPHD48H3 - Advanced Seminar in Art History and Visual Culture

What is art history and visual culture? What do we know, and need to know, about how we study the visual world? This capstone course for senior students will examine the ambiguities, challenges, methods and theories of the discipline. Students will practice methodological and theoretical tenets, and follow independent research agendas.

Prerequisite: 1.5 credits at the C-level in VPH courses
Exclusion: FAH470H
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students in the Major and Minor in Art History and Visual Culture. Additional students will be admitted as space permits.

Arts and Science Co-op

Arts and Science Co-op Contact: askcoop@utoronto.ca

As an Arts & Science Co-op student, you have a team of Co-op staff working with you along your journey. From day one, you will be immersed in the world of work. With COPB50H3/(COPD01H3), you will have a chance to investigate co-op/career options, create and receive feedback on job search documents, interact with senior students, and gain insight into industry trends.

After successfully completing COPB50H3, you will receive your work term sequence and begin to work one-on-one with your Student Development Coordinator to tailor your job search documents (resume, cover letter) and develop interview skills by conducting mock interviews). This takes place in COPB51H3/(COPD03H3) where you will further develop your job search skills to compete for work terms in industries specific to your program area. Typically, this begins eight months (two semesters) before your first scheduled work term. Once you have completed this preparation, you will be ready to begin competing for work term positions.

There are four Co-op courses that support you in your work term job competition. These courses are taken during the respective terms where you are seeking work:

- COPB52H3/(COPD11H3)
- COPB53H3
- COPC98H3/(COPD12H3) - taken when seeking your second Co-op work term
- COPC99H3/(COPD13H3) - taken when seeking your third or additional Co-op work term

When you're on a work term, you'll be enrolled in a work term course for your program area. This helps to facilitate communication and support while in the workplace.
You are automatically enrolled for all Co-op courses by the Arts & Science Co-op Office based on your program area and work term sequence.

- COPC01H3
- COPC03H3
- COPC05H3
- COPC13H3
- COPC14H3
- COPC20H3
- COPC30H3
- COPC40H3

You can complete a minimum of two or three paid work term experiences in an area related to your studies while completing your B.A. or B.Sc. Work terms are four, eight, or twelve months in duration and can be in the Greater Toronto Area (GTA), across Canada, or international.
Note: You are automatically enrolled for all Co-op courses by the Arts & Science Co-op Office based on your program area/subject POSt and work term sequence.

While to remain in the Co-op program requires a student to have a minimum CGPA of 2.5, there are specific work term eligibility requirements for each academic program, such as a minimum number of courses, program-specific grade point average (GPA), and successful completion of required courses. It is the students' individual responsibility to ensure that they have completed the correct

courses to make them eligible for a work term and that they have correctly completed program and degree requirements for graduation.

To compete for a work term a student must be in a Co-op subject tPOSt and maintain a 2.5 CGPA, Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted in the academic program sections of the calendar.

For details, view the academic program sections of the calendar linked below:

Calendar Section	**Co-op Program**
Biology	• Specialist (Co-op) Program in Molecular Biology and Biotechnology (Science)
Chemistry	• Specialist (Co-op) Program in Biological Chemistry (Science) • Specialist (Co-op) Program in Chemistry (Science) • Major (Co-op) Program in Biochemistry (Science) • Major (Co-op) Program in Chemistry (Science)
City Studies	• Major (Co-op) Program in City Studies (Arts)
Computer Science	• Specialist (Co-op) Program in Computer Science (Science) • Major (Co-op) Program in Computer Science (Science)
English	• Specialist (Co-op) Program in English (Arts) • Major (Co-op) Program in English (Arts)
Environmental Science	• Specialist (Co-op) Program in Environmental Biology (Science) • Specialist (Co-op) Program in Environmental Chemistry (Science) • Specialist (Co-op) Program in Environmental Geoscience (Science)

	• Major (Co-op) Program in Environmental Science
French	• Specialist (Co-op) Program in French (Arts) • Major (Co-op) Program in French (Arts)
Health Studies	• Major (Co-op) Program in Health Studies - Health Policy (Arts) • Major (Co-op) Program in Health Studies - Population Health (Science)
History	• Specialist (Co-op) Program in History (Arts) • Major (Co-op) Program in History (Arts)
Linguistics	• Specialist (Co-op) Program in Linguistics (Arts) • Specialist (Co-op) Program in Psycholinguistics (Arts) • Major (Co-op) Program in Linguistics (Arts)
Mathematics	• Specialist (Co-op) Program in Mathematics (Science) • Major (Co-op) Program in Mathematics (Science)
Neuroscience	• Specialist (Co-op) Program in Neuroscience (Science)
Philosophy	• Specialist (Co-op) Program in Philosophy (Arts) • Major (Co-op) Program in Philosophy (Arts)
Physics and Astrophysics	• Specialist (Co-op) Program in Environmental Physics (Science)
Psychology	• Specialist (Co-op) Program in Mental Health Studies (Science) • Specialist (Co-op) Program in Psychology (Science)

Public Policy	• Major (Co-op) Program in Public Policy (Arts)
Statistics	• Specialist (Co-op) Program in Statistics (Science) • Major (Co-op) Program in Statistics (Science)
Women's and Gender Studies	• Major (Co-op) Program in Women's And Gender Studies (Arts)

Internal Application Requirements

Enrolment into an Arts & Science Co-op program is limited to ensure that students receive a high level of assistance from our team, as well as quality work terms. Admission to the program is based on several factors including:

- Program-specific grade point average (GPA)
- Successful completion of required courses, based on your program area

The majority of our students apply to Co-op directly from high school, but a limited number of current UTSC students can apply to Co-op when they choose their subject POSt in April or July.

For more information on the admissions process as well as on the minimum CGPA requirement for a specific program, please visit the Arts & Science Co-op Office website.

Status in Co-op Programs:
Status in an Arts & Science Co-op program will be determined at the end of each session (Fall, Winter, and Summer) for students who have attempted at least 3.0 credits since beginning their studies at UTSC, or in other Arts and Sciences Divisions at the University. Students with a cumulative grade point average (CGPA) of 2.5 or higher are considered to be in good standing.

- Students whose CGPA falls below 2.5 will be placed on probation.
- Students may clear probation by achieving a CGPA of 2.5 or better in the next study session. Where the CGPA is below 2.5, but the sessional grade point average (SGPA) is at least 2.5 but above 2.3**,** students may be granted a second probationary semester.
- Students must clear their probation within a maximum of two study sessions in order to remain in a Co-op program.
- Students on probation in the Co-op program may not apply for a work-term until they have successfully cleared their probation. However, if a student's CGPA falls below 2.5 after having secured a co-op work-term through the recruitment process, the student will be permitted to complete the work term but must clear probation before being permitted to participate in the next recruitment process.
- Students whose CGPA falls below 2.3 will be removed from the Co-op program

For information on fees in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section in the *Calendar*

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Arts and Science Co-op Courses

COPB50H3 - Foundations for Success in Arts and Science Co-op

This course provides students in their first-year of Arts and Science Co-op to develop skills and tools to manage and thrive during the job search and in the workplace throughout the semester. In addition, students begin to build their job search tool kit, examine their strengths and areas of development, discover the skills employers are seeking in undergraduate Co-op students and in employees in general, and explore possible pathways to achieving their Co-op work terms and long term academic or career goals. Students will learn and practice strategies to best present their skills, knowledge and experience in foundational job search documents. The concept of interviewing is also introduced.

This course is a compulsory requirement for the Arts and Science Co-op programs. Students need to pass the course before proceeding to seek for a Co-op work term, therefore, this course may be repeated.

Prerequisite: Restricted to students in the Arts and Science Co-op programs.
Exclusion: COPB10Y3/(COPD07Y3); (COPD01H3)
Note: Students should plan to complete this course in the first year of study in their selected Arts and Science Co-op program.

COPB51H3 - Preparing to Complete your Co-op Work Term

This course builds on the foundational job search concepts introduced in COPD01H3, providing opportunities to refine application strategies and practice interviewing in various formats, based on academic program areas as well as industry hiring practices. Students begin to experience the Co-op job search cycle by reviewing, selecting, and applying to job postings weekly and receiving feedback similar to when participating in a job search cycle. With this feedback, and the support of your Coordinator, students make adjustments to their job search approach and develop strategies for success in the following term for both job applications and interview performance. The importance of a job search network and research to tailor and prepare during your job search are also examined.

This course is a compulsory requirement for the Arts and Science Co-op programs. Students need to pass the course before proceeding to seek for a Co-op work term, therefore, this course may be repeated.

Prerequisite: COPB50H3/(COPD01H3); restricted to students in the Arts and Science Co-op programs.
Exclusion: (COPD03H3)

COPB52H3 - Managing Your Job Search and Transition to Work

This course will draw on students job search experience. Students will learn how to effectively and professionally navigate challenging situations while job searching and on work term. Drawing upon the job search knowledge and tool kit created in COPB50H2 and COPB51H3, this course is designed to provide students who are competing for a first Co-op work term with resources and support necessary to meet their goal of securing a work term. During this semester, Co-op students are applying to job postings on CSM and attending interviews until they secure a work term. This course also provides students with job search trends, job search support and feedback, interview coaching, and peer activities. The course is a combination of in-class, group activities, and one-on-one appointments. Topical information and insights about the labour market and Co-op employers are also provided.

Prerequisite: COPB51H3/(COPD03H3); restricted to students in the Arts and Science Co-op programs.
Exclusion: (COPD11H3)

COPB53H3 - Managing Your Ongoing Work Term Job Search

This course is for students in Arts & Science Co-op who have undertaken a first work term search and successfully completed COPB52H3/(COPD11H3), but have not embarked on a first work term experience. Students in this course will continue with job search activities and receive additional support factoring in their overall learning.

Prerequisite: COPB52H3/(COPD11H3); restricted to students in the Arts and Science Co-op programs.

COPC01H3 - Co-op Work Term for Mathematical Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts & Science Co-op students will complete this course each semester when on work term.
There is a minimum requirement of 3 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC03H3 - Co-op Work Term for Computer Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts & Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 3 work terms for the co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC05H3 - Co-op Work Term for Physical and Environmental Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 3 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC13H3 - Co-op Work Term for Social Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 2 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC14H3 - Co-op Work Term for Neuroscience

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts & Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 2 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC20H3 - Co-op Work Term for Humanities

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 2 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC30H3 - Co-op Work Term for Molecular Biology and Biotechnology

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 2 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC40H3 - Co-op Work Term Psychological and Health Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 2 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

Prerequisite: COPB52H3/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.
Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

COPC98H3 - Integrating Your Work Term Experience Part I

This course is designed to provide students who have completed their first work term with tools and strategies to effectively integrate their recent work term experience into their job search documents, as well as practice articulating their new or enhanced skills and experience in an interview setting. Students are provided with opportunities to practice and refine their approach as they begin to seek their next Co-op work term. In class Apply Together sessions and one-on-one appointment consultations with your Work Term Engagement Coordinator will provide you with semester specific market trends, tools and resources to succeed in your job search. There are also online and in person forums for sharing work term and job search experience with junior Co-op students and peers.

Prerequisite: COPB52H3/(COPD11H3) and competition of one work term; restricted to students in the Arts and Science Co-op Programs.
Exclusion: (COPD12H3)

COPC99H3 - Integrating Your Work Term Experience Part II

This course is designed to provide students who have completed 2 work terms or more with tools and strategies to effectively integrate their recent work term experiences into their job search documents as well as practice articulating their new or enhanced skills and experience in an interview setting. Students are provided with opportunities to practice and refine their approach as they job search/compete for another Co-op work term. In class Apply Together sessions and one-on-one appointment consultations with your Work Term Engagement Coordinator will provide you with semester specific market trends, tools and resources to succeed in your job search. Having the experience of job searching and at least 8 months of work term experience, students share, compare, and contrast their individual experiences. There are also online and in person forums for sharing their work term and job search experience with junior Co-op students.

Prerequisite: COPC98H3/(COPD12H3) and completion of at least two work terms; restricted to students in the Arts and Science Co-op programs.
Exclusion: (COPD13H3)
Note: Students complete this course each time they are job searching for a work term beyond their second work term.

Arts, Culture and Media

Faculty List

- R. Bai, B.A., M.A. (Beijing Foreign Studies), Ph.D. (Illinois), Associate Professor
- W.R. Bowen, M.A., Ph.D. (Toronto), Associate Professor Emeritus
- Y. Brotman, B.A. (Manitoba), B.Ed., M.V.S. (Toronto), Lecturer
- K. Burchell, B.A. (McGill), M.Sc. (London), Ph.D. (Goldsmiths), Assistant Professor
- M. Campbell, B. Ed. (York), M.A. (York), Ph.D. (Toronto), Assistant Professor
- T.L. Cowan, B.A. (Simon Fraser), M.A., Ph.D., Assistant Professor
- J. Dvorkin, B.A. Hon. (Alberta), M.A.(Toronto), M. Phil. (London), Lecturer Emeritus
- B. Freeman, B.A., M.A., Ph.D., Associate Professor
- M. Gervers, A.B. (Princeton), M.A. (Poitiers), Ph.D. (Toronto), Professor
- Y. Gu, M.Phil., Ph.D. (London), Associate Professor
- E. Harney, M.A. (Harvard), M.A. (Washington), Ph.D. (London), Associate Professor
- S.L. Helwig, B.A. (Guelph), M.A. (Toronto), Associate Professor, Teaching Stream
- M. Hlady, B.F.A. (Victoria), M.F.A. (York), Associate Professor
- A. Irving, B.F.A. (Nova Scotia College of Art and Design), M.F.A. (York), Associate Professor, Teaching Stream
- W. Kwan, B.A. (Toronto), M.F.A. (Columbia), Associate Professor
- T. Lamie, B.A. (Dalhousie), M.F.A. (York), Associate Professor, Teaching Stream
- E. Leffler, B.S. (Northwestern), M.A. (Cape Town), Ph.D., (Minnesota), Assistant Professor
- J. Lujan, B.F.A. (U of Texas), M.F.A. (U of Colorado), CLTA Assistant Professor
- M.E.Luka, B.F.A., (NSCAD), Ph.D. (Concordia), Assistant Professor
- A. MacDonald, B.A. (York), AOCAD, Associate Professor, Teaching Stream
- R. Mantie, B.Mus.Ed, M.Mus.Ed.(Brandon), Ph.D.(Toronto), Associate Professor
- T. Mars, D.F.A., Honoris Causa, NSCAD University, Associate Professor, Teaching Stream
- J. Mayo, M.A., Ph.D. (Toronto), Associate Professor Emeritus
- S. Mazinani, M.F.A. (Stanford), Assistant Professor
- D. Nieborg, B.A. (Utrecht), M.A. (Utrecht) Ph.D. (Amsterdam), Assistant Professor
- M. Petit, M.A., Ph.D. (Colorado), Assistant Professor, Teaching Stream
- A. Rapoport, Mus.M., Mus.Doc. (Toronto), Senior Lecturer
- J. Rault, B.A. (Alberta), M.A. (York), Ph.D. (McGill), Assistant Professor
- L. Risk, B.A. (UC Berkeley), M.A. (McGill), Ph.D. (McGill), Assistant Professor
- A. Stanbridge, M.A. (Wolverhampton), Ph.D. (Carleton), Associate Professor
- K. Suzuki, B. Mus. (Indiana), D.M.A. (Stanford), Associate Professor
- L.C. Tucker, B.Mus., B.Mus.Ed. (Memorial), M.Mus.Mus.Ed, M.Mus. Perf. (Wisconsin-Madison), Associate Professor, Teaching Stream
- E. Webster, B.A., M.A. (Toronto), Ph.D. (Case Western Reserve), Associate Professor, Teaching Stream
- S. Yu, B.A. (Simon Fraser), M.I.S. (Yonsei), Ph.D. (Simon Fraser), Assistant Professor

ACM Program Manager: M. Hussain, Email: manaal.hussain@utoronto.ca

The Department of Arts, Culture and Media (ACM) houses nine distinct disciplines: Art History and Visual Culture, Arts Management, Curatorial Studies, Journalism, Media Studies, New Media Studies, Music and Culture, Studio Art, and Theatre and Performance. Faculty research and practice across a wide range of fields, and students benefit from specialized arts facilities such as the Leigha Lee

Browne Theatre and the Doris McCarthy Gallery. ACM also hosts an array of special events and cultural programming through the year, and students are invited to join our departmental students' association, ACMSA.

ACMB01H3 is designed for students enrolled in programs offered by the Department of Arts, Culture and Media. The course focuses on the development of critical reading, thinking and writing skills necessary for research and inquiry in the Humanities. All ACM students are encouraged to take ACMB02H3.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Arts, Culture And Media Courses

ACMA01H3 - Exploring Key Questions in the Arts, Culture and Media

ACMA01H3 surveys the cultural achievements of the humanities in visual art, language, music, theatre, and film within their historical, material, and philosophical contexts. Students gain understanding of the meanings of cultural works and an appreciation of their importance in helping define what it means to be human.

Exclusion: (HUMA01H3)
Breadth Requirements: Arts, Literature & Language

ACMB01H3 - Critical Reading, Thinking and Writing for ACM Programs

Academic study in the Department of Arts, Culture and Media is distinguished by critical, historical and practice-based approaches to text, image, sound and performance. This course focuses on critical reading, thinking and writing skills while introducing students to humanistic inquiry through lectures, readings, discussions, and attendance of campus performances and gallery exhibits. This is a writing intensive course that offers students regular constructive feedback on their work.

Prerequisite: Any 2.0 credits
Exclusion: ACMA01H3 (if taken before the 2016-17 academic year)
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in Specialist and Major offered by the Department of Arts, Culture & Media. Other students will be admitted as space permits.

ACMB02H3 - Methods of Inquiry and Investigation for ACM Programs

An introduction to investigative research methods where the humanities and social sciences meet including visual, documentary, ethnographic, interview and other qualitative tools for analyzing social and cultural practices. Students develop skills to identify research inquiries, formulate approaches to investigate, locate, collect and learn from data, analyze evidence, and communicate results.

Corequisite: ACMB01H3
Exclusion: (ACMA02H3)
Breadth Requirements: Social & Behavioural Sciences
Note: Students in the Specialist (Joint) program in Journalism, and in the Journalism Studies Stream of the Major in Media, Journalism and Digital Cultures are encouraged to take ACMB01H3 and ACMB02H3 in the same semester.

ACMB10H3 - Equity and Diversity in the Arts

Equity and diversity in the arts promotes diversity of all kinds, including those of race, gender, socio-economic status, sexual orientation or identity, age, ability or disability, religion, and aesthetics, tradition or practice. This course examines issues of equity and diversity and how they apply across all disciplines of arts, culture and media through critical readings and analysis of cultural policy.

Prerequisite: Any 4.0 credits
Exclusion: (VPAB07H3)
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enroled in Specialist and Major Programs offered by the Department of Arts, Culture & Media. Other students will be admitted as space permits.

ACMC01H3 - ACMEE Applied Practice I

A study of the arts, culture and/or media sector through reflective practice. Students will synthesize their classroom and work place / learning laboratory experiences in a highly focused, collaborative, and facilitated way through a series of assignments and discussions.

Prerequisite: 9.0 credits including VPAB16H3 and VPAB17H3 (or its equivalent with instructor permission) and successful completion of required Field Placement Preparation Activities
Corequisite: Field Placement I (may be taken as a prerequisite with Program Director's permission)
Enrolment Limits: 10
Breadth Requirements: Arts, Literature & Language

ACMD01H3 - ACMEE Applied Practice II

An advanced study of the arts, culture and/or media sector through reflective practice. Students will further engage with work places as “learning laboratories”, and play a mentorship role for students in earlier stages of the experiential education process.

Prerequisite: ACMC01H3
Corequisite: Field Placement II (may be taken as a prerequisite with Program Director's permission)
Enrolment Limits: 10
Breadth Requirements: Arts, Literature & Language

ACMD02H3 - ACMEE Applied Practice III

An advanced study of the arts, culture and/or media sector through reflective practice. Students will further synthesize their classroom and work place / learning laboratory experiences, and play a mentorship role for students in earlier stages of the experiential education process.

Prerequisite: ACMD01H3
Corequisite: Field Placement III (may be taken as a prerequisite with Program Director's permission)
Enrolment Limits: 10
Breadth Requirements: Arts, Literature & Language

ACMD91H3 - Supervised Readings

Independent study of an advanced and intensive kind, under the direction of a faculty member. The material studied should bear some significant relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in other courses.
Students are advised that they must obtain consent from the supervising instructor *before* registering for these courses. The student should submit to the instructor a statement of objectives and proposed content for the course; this should be done by 15 April for 'F' courses and by 1 December for 'S' courses. If the proposal is approved, two faculty members from relevant disciplines will supervise and evaluate the work.

Prerequisite: 3.0 credits at the B-level in the Department of Arts, Culture and Media.
Exclusion: (HUMD91H3)

ACMD92H3 - Supervised Readings

Independent study of an advanced and intensive kind, under the direction of a faculty member. The material studied should bear some significant relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in other courses.
Students are advised that they must obtain consent from the supervising instructor *before* registering for these courses. The student should submit to the instructor a statement of objectives and proposed content for the course; this should be done by 15 April for 'F' courses and by 1 December for 'S' courses. If the proposal is approved, two faculty members from relevant disciplines will supervise and evaluate the work.

Prerequisite: 3.0 credits at the B-level in the Department of Arts, Culture and Media.
Exclusion: (HUMD92H3)

ACMD93Y3 - Supervised Readings

Independent study of an advanced and intensive kind, under the direction of a faculty member. The material studied should bear some significant relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in other courses.
Students are advised that they must obtain consent from the supervising instructor *before* registering for these courses. The student should submit a statement of objectives and proposed content for the course to the instructor by 15 April for 'F' and 'Y' courses and by 1 December for 'S' courses. If the proposal is approved, two faculty members from relevant disciplines will supervise and evaluate the work.

Prerequisite: 3.0 credits at the B-level in the Department of Arts, Culture and Media.
Exclusion: (HUMD93Y3)

ACMD94H3 - Senior Collaboration Project in Arts, Culture and Media

This course is an advanced-level collaborative project for senior students in Arts, Culture and Media under the direction of one or more faculty members. While the course nature and focus will vary year to year, the project will likely be rooted in Arts, Culture and Media faculty research or an ongoing community partnership, and will likely involve experiential elements.

Note: Students should contact the ACM Program Manager: acm-pa@utsc.utoronto.ca, to verify if this course could be counted towards their ACM program requirements.

Prerequisite: 15.0 credits and enrolment in any ACM program
Enrolment Limits: 15-20
Breadth Requirements: History, Philosophy & Cultural Studies

ACMD98H3 - Experiential Learning for Arts, Culture and Media Programs

This course offers students the opportunity to integrate experiential learning appropriate to students' fields of study within the Department of Arts, Culture and Media. It provides student experiences that develop work and life-related skills and knowledge through a spectrum of interactive approaches with focused reflection. The course allows students to apply ACM-specific program knowledge and/or essential employability skills. Students must complete an application form made available on the UTSC Timetable and on the ACM website.

Prerequisite: 9.0 credits in courses offered by the Department of Arts, and Culture and Media, and cGPA of at least 2.5; selection will be based on the application form
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: This is a 0.5 credit course. However, depending on the course content, it may be offered in a single-term or over two-terms. Priority will be given to students enrolled in programs offered by the Department of Arts, Culture and Media.

ACMD99H3 - Work Integrated Learning for Arts Culture and Media Programs

This course offers students the opportunity to integrate academic learning with an internship placement appropriate to students' field of study within the Department of Arts, Culture and Media. The 0.5 credit, two-term course provides students an understanding of workplace dynamics while allowing them to refine and clarify professional and career goals through critical analysis of their work-integrated learning experience.

Prerequisite: 8.0 credits in courses offered by the Department of Arts, Culture and Media; CGPA of at least 3.0; permission of the Arts Culture and Media Internship Coordinator
Breadth Requirements: History, Philosophy & Cultural Studies

Arts Management

Faculty List

- S.L. Helwig, B.A. (Guelph), M.A. (Toronto), Associate Professor, Teaching Stream
- M.E. Luka, B.F.A., (NSCAD), Ph.D. (Concordia), Assistant Professor

ACM Program Manager*:* M. Hussain, Email: manaal.hussain@utoronto.ca

Arts Management is designed for students with an interest in the creative practice and the business of the arts. It provides students with a solid grounding in the knowledge and skills necessary for fulfilling professional careers in producing, presenting and exhibiting organizations (theatres, opera companies, orchestras, dance companies, galleries, museums), arts councils, arts service organizations, government, and also for graduate studies in disciplines such as Arts Management, Cultural and Public Policy, Arts Education, and Museum or Curatorial Studies.

Students can choose either the Specialist Program in Arts Management* or the Major Program in Arts and Media Management. Students should consult with their ACM Program Manager to ensure proper course/program planning.
***Note:** the Specialist (Co-op) Program in Arts Management is suspended to new enrolments. Students who are already enrolled in the Program should consult the 2012-13 *Calendar*.

Specialist Program in Arts Management Course Selection Table:

Year of Study	Fall-Winter
First Year	VPAA06H3 VPAA10H3 VPAA12H3 MGTA01H3 MGTA02H3 ACMB01H3 (if intending this to be counted towards the 6.0 credits in Arts) A-level courses in the Art discipline you are intending to collect 6.0 credit from (refer to program requirement 3)
Second Year	ACMB10H3 VPAB05H3 (a requirement if you are in the standard stream and an option if you are in field placement) VPAB13H3 VPAB16H3 VPAB17H3

	B-level courses in the Art discipline you are intending to collect 6.0 credit from (refer to program requirement 3)
Third Year	VPAC13H3 VPAC15H3* VPAC16H3* [VPAC17H3* or VPAC18H3*] [VPAC21H3* or *VPAC22H3*] ACMC01H3 (if in the Field placement stream) Management C-level course (ACM Program Manager will discuss options with you and add the course manually; you may choose to take this course in the fourth year as well) C-level courses in the Art discipline you are intending to collect 6.0 credit from (refer to program requirement 3) *Please connect with ACM Program Manager as some of th Arts Management courses are offered in alternate years.
Fourth Year	VPAD12H3 ACMD01H3 (if in the Field placement stream) VPAD-level or D-level courses in the Art discipline you are intending to collect 6.0 credit from (refer to program requirement 3)

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Arts Management Programs

SPECIALIST PROGRAM IN ARTS MANAGEMENT (ARTS)

ACM Program Manager: acm-pa@utsc.utoronto.ca

While a majority of the academic work in the program is based on the not-for-profit arts model, the skills that UTSC's arts management students develop are transferable skills: critical thinking, organizational development, marketing, fundraising, public relations and public policy can be applied to many fields, and graduates may eventually opt to work in for-profit cultural industries such as commercial music, film and television, or even non-arts sectors that require similar abilities. For further information, please visit the Arts Management website.

The **Standard Stream** of the program is designed to give students a broad and deep understanding of Arts Management at the undergraduate level through academic courses but without full-field placements. This stream is well suited to students who have past or alternate practical experience in arts management.

The **Field Placement Stream** of the program is designed to enhance the students' understanding of Arts Management through substantial exposure to its practice in a minimum of two 300-hour not-for-credit placements.

Enrolment Requirements
Enrolment in the program is limited and entry is competitive. Admissions are granted on the basis of applicants' academic performance, background in one or more of the arts, and demonstrated interest and potential ability in Arts Management as discerned through an interview. For the Standard Stream, students must have a minimum cumulative GPA of 2.5, both overall and in Arts Management-specific courses. For the Field Placement Stream, students must have a minimum cumulative GPA of 3.0, both overall and in Arts Management-specific courses.

Program Requirements
This program requires the completion of a total of 15.0 credits. Students complete a core of 6.0 credits in Arts Management courses, 1.5 credits in Management courses, 6.0 credits in one or more arts discipline(s), and 1.5 credits specific to either the Standard Stream or the Field Placement Stream.

Students must maintain a minimum cumulative grade point average (CGPA), both overall and in Arts Management-specific courses: 2.5 for the Standard Stream and 3.0 for the Field Placement Stream. Continuous consultation with the Program Director is strongly encouraged for all students in each year of their program.

Core (13.5 credits)

1. Arts Management Courses (6.0 credits)
ACMB10H3 Equity and Diversity in the Arts
VPAA06H3 Visual and Performing Arts Management in the Digital Age
VPAA10H3 Introduction to Arts and Media Management
VPAA12H3 Audience and Resource Development
VPAB13H3 Financial Management for Arts Managers
VPAB16H3 Managing and Leading in Cultural Organizations
VPAB17H3 From Principles to Practices in Arts Management
VPAC13H3 Planning and Project Management in the Arts and Cultural Sector
VPAC15H3 Cultural Policy
VPAC16H3 Legal and Human Resource Issues in Arts Management
[VPAC17H3 Marketing in the Arts and Media *or* VPAC18H3 Raising Funds in Arts and Media]
VPAD12H3 Senior Seminar in Arts and Media Management

2. Management Courses (1.5 credits)
MGTA01H3 Introduction to Business
MGTA02H3 Managing the Business Organization
0.5 credit from Management or Economics at the C- or D-level (unless an alternative is formally approved in advance by the Arts Management Program Director)

Note: Arts Management students have access to the following Management courses via ROSI: MGHC23H3, MGMC30H3, MGTC33H3, MGTC44H3 and MGTD45H3. Arts Management students interested in other Management courses must approach the Arts Management Program Director early in the enrolment period to discuss suitability and to request access. Appropriate prerequisite knowledge is required for all Management courses.

3. Arts Courses (6.0 credits)
[6.0 credits from within the Major program in one of the artistic disciplines offered by the Department of Arts, Culture and Media (Art History, Music and Culture, Studio Art, and Theatre & Performance Studies). At least 1.0 credit of these must be at the C- or D-level.] *OR* [With the prior written approval of the Arts Management Program Director, students may tailor a coherent group of courses to accommodate their special interests and particular career goals. At least 1.0 credit must be at the C- or D-level.]

Note: Because the completion of a Major program in a chosen artistic field is particularly valuable for students contemplating graduate studies and certain careers related to that subject, students may wish to add the Major Subject POSt and take additional Arts courses to fulfil the Major requirement. Alternatively, one or more Minor program(s) may be valuable in certain fields of work and further studies.

A. Standard Stream
In addition to the Core requirements above, students must complete 1.5 credits as follows:

4. (1.5 credits)
VPAB05H3 Introduction to Contemporary Cultural Theory
and
1.0 credit from the following:
VPAB15H3 Arts Education and Outreach
[VPAC17H3 Marketing in the Arts and Media *or* VPAC18H3 Raising funds in Arts and Media (whichever one is not fulfilling the requirements in the Core Courses)]
VPAC21H3 Special Topics in Arts Management I
VPAC22H3 Special Topics in Arts Management II
VPAD07H3 Agency & Pluralism in Social & Cultural Transformations
VPAD14H3 Independent Studies in Arts Management

Note: one of the D-level choices is required if a D-level course is not taken as a part of component 2 (Management Courses) or component 3 (Arts Courses).

B. Field Placement Stream

4. Work Term Placements
In addition to the Core requirements above, students must complete a minimum of two 300-hour not-for-credit work term placements:
Field Placement I
Field Placement II

5. (1.5 credits)
ACMC01H3 ACMEE Applied Practice I (to be taken concurrently with, or after, Field Placement I)
ACMD01H3 ACMEE Applied Practice II (to be taken concurrently with, or after Field Placement II)
and
0.5 credit from the following:
ACMD02H3 ACMEE Applied Practice III (to be taken in connection with an optional “Field Placement

III")
VPAB05H3 Introduction to Contemporary Cultural Theory
VPAB15H3 Arts Education and Outreach
[VPAC17H3 Marketing in the Arts and Media or VPAC18H3 Raising Funds in Arts and Media (whichever one is not fulfilling the requirements in the Core Courses)]
VPAC21H3 Special Topics in Arts Management I
VPAC22H3 Special Topics in Arts Management II
VPAD07H3 Agency & Pluralism in Social & Cultural Transformations
VPAD14H3 Independent Studies in Arts Management

Courses in the first two years of the program
The first year of study would normally consist of 5.0 credits (10 courses - five in each of the Fall and Winter semesters) including VPAA10H3, VPAA12H3, VPAA06H3, MGTA01H3, MGTA02H3, at least three courses from the "Arts Courses" section of the program requirements, and electives. ACMB01H3 can be taken as one of the "Arts Courses" in the Winter semester of the first year, or during the second year. The second year of study would normally consist of 5.0 full credits (10 courses) including VPAB13H3, VPAB16H3 and VPAB17H3, ACMB01H3 (if not already taken, B-level courses from the "Arts Courses" program requirement, and electives. Arts Management students are encouraged to consider ACMB02H3 as one of their elective choices.

MAJOR PROGRAM IN ARTS AND MEDIA MANAGEMENT (ARTS)

The Major program offers students an opportunity to acquire a strong foundation in, and understanding of, the theories and practices associated with the management of creative arts and media enterprises. The program exposes students to the scholarship and skills of this multidisciplinary field through a broad range of courses that bring together creative endeavours and business. While the program can be paired with any other Major at UTSC, it is especially intended to be combined with other programs in the Department of Arts, Culture and Media: Art History and Visual Culture, Studio Art, Music and Culture, Theatre and Performance Studies, Media Studies, New Media Studies, or Journalism.

This Major is for students seeking opportunities and understanding about the always-evolving arts and media environment, where traditional leadership roles are both crucial and constantly challenged, and where community engagement, creative practice, entrepreneurship and leadership are not limited to the private sector but also reach deeply into the non-profit and public sectors.

Program Requirements

This program requires students to complete a total of 8.0 credits as follows:

1. 2.0 credits:
VPAA10H3 Introduction to Arts and Media Management
VPAA12H3 Audience and Resource Development
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
ACMB10H3 Equity and Diversity in the Arts

2. 3.0 credits:
VPAB13H3 Financial Management for Arts Managers
VPAB16H3 Managing and Leading in Cultural Organizations
VPAC13H3 Planning and Project Management in the Arts and Cultural Sector
VPAC16H3 Legal and Human Resource Issues in Arts Management

VPAC17H3 Marketing in the Arts and Media
VPAC18H3 Raising Funds in Arts and Media

3. 0.5 credit:
VPAD12H3 Senior Seminar in Arts and Media Management

4. 2.5 additional credits in Arts Management (VPA courses). Students may substitute up to 1.0 credit in any courses from the Department of Arts, Culture and Media at the B-, C-, or D-level, for which they hold the pre-requisites; students are encouraged to select Media Studies or Journalism courses

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Arts Management Courses

VPAA06H3 - Visual and Performing Arts Management in the Digital Age

An introduction to the use of computers in the visual and performing arts. Demonstrations, workshops and an introductory survey of applications and usage will illustrate current standards and consider future possibilities of the handling of information (including text, images, sound and data). Projects will allow opportunities for practical experience.

Exclusion: (CSCA02H3)
Recommended Preparation: VPAA10H3
Enrolment Limits: 40. Priority will be given to students in Arts Management, then other ACM programs (Arts, Culture and Media Programs) and Humanities and Social Sciences (Co-op)
Breadth Requirements: Arts, Literature & Language

VPAA10H3 - Introduction to Arts and Media Management

An introduction to the theories and practices of arts and media management within the not-for-profit, public and social enterprise sectors. It is a general survey course that will introduce the broad context of arts and media management in Canadian society and provide an overview of the creative and administrative issues currently faced by the arts and media community.

Breadth Requirements: Arts, Literature & Language

VPAA12H3 - Audience and Resource Development

An introduction to the essential and interconnected areas of marketing and fundraising in the arts.

Prerequisite: VPAA10H3
Exclusion: (VPAB12H3), (VPAB14H3)
Breadth Requirements: Arts, Literature & Language

VPAB05H3 - Introduction to Contemporary Cultural Theory

An introduction to key concepts and issues in contemporary cultural theory. Emphasizes critical reading, thinking, and writing. Students will engage with a wide range of theoretical and methodological developments in the study of art and culture, including, cultural studies, feminism, and postmodernism.

Prerequisite: [4.0 credits, including VPAA10H3] or [SOCB58H3 and an additional 4.0 credits]
Breadth Requirements: History, Philosophy & Cultural Studies

VPAB13H3 - Financial Management for Arts Managers

An introduction to financial management issues faced by arts and cultural managers.
The topics include an introduction to basic accounting concepts, financial statement preparation and analysis, internal control and management information systems, budgeting and programming, cash and resource management, and various tax-related issues.

Prerequisite: VPAA10H3
Exclusion: MGTB03H3
Recommended Preparation: VPAA12H3 or [(VPAB12H3) and (VPAB14H3)]
Breadth Requirements: Quantitative Reasoning

VPAB15H3 - Arts Education and Outreach

An introduction to public programming, community arts, and education within the arts organization and beyond. This course will consider the practical and the broader historical, social and policy issues related to the relationship between arts programming and audiences.

Prerequisite: At least 4.0 credits including VPAA10H3
Breadth Requirements: History, Philosophy & Cultural Studies

VPAB16H3 - Managing and Leading in Cultural Organizations

An introduction to the theories and practice of leadership, employee and volunteer management, and organizational behaviour as they apply to the not-for-profit arts sector.

Prerequisite: VPAA10H3 and VPAA12H3
Breadth Requirements: Arts, Literature & Language
Note: VPAA12H3 may be taken as a co-requisite with the express permission of the instructor.

VPAB17H3 - From Principles to Practices in Arts Management

An introduction to the real-world application of knowledge and skills in arts and arts-related organizations. This course allows students to build on foundational studies and develop discipline-specific knowledge and skills through experiential methods (including a short-term field placement) and objective study.

Prerequisite: VPAA12H3 and VPAB16H3
Enrolment Limits: 25; Restricted to students in the Specialist in Arts Management.
Breadth Requirements: Arts, Literature & Language
Note: Both VPAA12H3 and VPAB16H3 can be taken as co-requisites with the permission of the instructor.

VPAC13H3 - Planning and Project Management in the Arts and Cultural Sector

This course provides a broad foundation of project management and planning knowledge and skills. Topics such as project and special event management (including tours, festivals, etc.), and strategic and business planning (including entrepreneurship) will be discussed in the context of organizational processes.

Prerequisite: 8.0 credits including VPAB13H3, VPAB16H3 and ACMB01H3
Breadth Requirements: Arts, Literature & Language

VPAC15H3 - Cultural Policy

A survey of the principles, structures and patterns of cultural policy and arts funding, both nationally and internationally. The course will explore a wide range of cultural policy issues, addressing both the subsidized arts and cultural industries sectors, and exploring the strengths and weaknesses of particular policy approaches.

Prerequisite: [8.0 credits, including VPAA10H3 and VPAB05H3 and ACMB01H3] or [8.0 credits, including SOCB58H3 and registration in the Minor in Culture, Creativity, and Cities]
Breadth Requirements: Arts, Literature & Language

VPAC16H3 - Legal and Human Resources Issues in Arts Management

This course is a study of legal and practical human resource issues from an arts management perspective. Topics will include copyright, freedom of expression, censorship, and issues related to labour relations and contracts in the cultural sector.

Prerequisite: 8.0 credits including VPAA10H3 and ACMB01H3
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

VPAC17H3 - Marketing in the Arts and Media

An advanced study of marketing within the arts and media sectors. This course facilitates a sophisticated understanding of the knowledge and skills required for arts and media managers to be responsive to varied market groups and changing market environments and successfully bring creative and cultural production and audiences together.

Prerequisite: VPAA10H3 and VPAA12H3 and ACMB01H3
Recommended Preparation: VPAA06H3
Breadth Requirements: Arts, Literature & Language

VPAC18H3 - Raising Funds in Arts and Media

An advanced study of fundraising and resource development within the arts and media sector. This course facilitates a sophisticated understanding of the arts and media landscape, as well as knowledge and skills required for arts and media managers to develop and increase varied revenue streams, including arts and entrepreneurial granting systems, media funding and contributed revenue to support artistic mission of cultural organizations.

Prerequisite: VPAA12H3 and VPAB13H3 and VPAB16H3 and ACMB01H3
Breadth Requirements: Arts, Literature & Language

VPAC21H3 - Special Topics in Arts Management I

Special topics for intensive practical, theoretical and/or experiential study of some specific aspects of Arts Management. The topic(s) to be explored in this course will change from session to session.

Prerequisite: 10.0 credits, including VPAA10H3, VPAA12H3, VPAB16H3, and ACMB01H3
Exclusion: (VPAD13H3)
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language

VPAC22H3 - Special Topics in Arts Management II

Special topics for intensive practical, theoretical and/or experiential study of some specific aspects of Arts Management. The topic(s) to be explored in this course will change from session to session.

Prerequisite: 10.0 credits, including VPAA10H3, VPAA12H3, VPAB16H3, and ACMB01H3
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language

VPAD07H3 - Agency and Pluralism in Social and Cultural Transformations

Transformations in social and cultural institutions have been achieved through the agency of individuals who have embedded the values of pluralism in their personal and professional lives. Students will explore model examples and will develop projects they might use to advance this aim in a variety of professional situations.

Prerequisite: (VPAB06H3) or ACMB10H3
Breadth Requirements: Social & Behavioural Sciences

VPAD12H3 - Senior Seminar in Arts and Media Management

A capstone course providing the opportunity for students to reflect on and synthesize the knowledge and skills gained in previous courses and related experiences.

Prerequisite: At least 16.0 full credits including VPAC13H3.
Exclusion: Restricted to students in the Specialist program in Arts Management
Note: This course should be taken in the final year of study; advance permission of the instructor is required for any other timing.

VPAD14H3 - Independent Studies in Arts Management

A directed research and/or project-oriented course for students who have demonstrated a high level of academic maturity and competence. Qualified students will have the opportunity to investigate an area of interest to both student and the Director in traditional or emerging subjects related to the field of Arts Management.

Prerequisite: At least 1.0 credit at the C-level in Arts Management courses. Written consent and approval of a formal proposal in the approved format must be obtained from the supervising instructor and Program Director by the last date of classes in the previous academic session.
Exclusion: MGTD80H3
Enrolment Limits: 6

Astronomy

Faculty List

- P. Artymowicz, M.Sc. (Warsaw University), Ph.D. (N. Copernicus Astron. Center, Polish Academy of Sciences), Professor
- J. Bayer Carpintero, B.Sc. (Los Andes, Bogota), M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- C.C. Dyer, B.Sc. (Bishop's), M.Sc., Ph.D. (Toronto), Professor Emeritus
- J.P. Lowman, B.Sc. (Toronto), M.Sc., Ph.D. (York, Canada), Professor
- K. Menou, B.Sc. (Angers), M.Sc. (Toulouse), Ph.D. (Paris XI) Associate Professor
- H. Rein, M.A.St. (Cambridge), Ph.D. (Cambridge), Associate Professor
- D. Valencia, B.Sc., M.Sc. (Toronto), Ph.D. (Harvard), Assistant Professor
- D. Weaver, B.Sc., M.Sc., Ph.D. (Toronto), Assistant Professor

Astronomy is, at the same time, one of the oldest and also one of the most dynamic areas of science. It is the attempt to understand the environment in which humanity developed, from the solar system in which we find our direct and recent origins, to the largest distance scales in the universe typified by quasars and the big bang, in which we must search for the very origins of structure ranging from the solar system to the largest structures, such as large clusters of galaxies and *cosmic voids*. The past four decades have seen startling discoveries, such as the *cosmic microwave background radiation,* that have given us both new understanding of the universe, and made us more aware of the problems still facing us in attaining a deeper understanding. The last decade has witnessed an explosion in the number of known planets, with more than five hundred already discovered in orbit around other stars in our Galaxy. In addition, there has recently been a significant trend towards the integration of many of the ideas of modern high energy physics into astronomy, with particularly interesting developments concerning ideas about the very first seconds in the evolution of our universe. As more planets are discovered, there promises to be an even stronger collaborative effort with disciplines such as chemistry and biology to discover the possible origins of life.

The full range of modern astronomical topics is covered in the introductory courses ASTA01H3 and ASTA02H3 at a level suitable for students without a mathematical background. In addition, the course ASTB03H3 is intended for students who have taken no previous astronomy, and covers the history of modern astronomy. It is intended to provide a historical perspective on modern astronomy, and by example, an introduction to the evolution of a number of modern scientific areas. For students wishing to further their study in astronomy, there are a number of higher-level courses, which are integral components of Major and Specialist programs in Physics and Astrophysics, and related areas. Refer to the Physics and Astrophysics section of the *Calendar* for details of these courses and programs.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Astronomy Programs

MINOR PROGRAM IN ASTRONOMY AND ASTROPHYSICS (SCIENCE)

Supervisor: D. Weaver (416-287-7248) Email: dan.weaver@utoronto.ca

Program Requirements
Students must complete 5.0 credits as follows:
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
ASTC25H3 Astrophysics of Planetary Systems
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics *or* any other AST C- or D-level course]

Astronomy Courses

ASTA01H3 - Introduction to Astronomy and Astrophysics I: The Sun and Planets

The solar neighbourhood provides examples of astronomical bodies that can be studied by both ground-based and space vehicle based-observational instruments. The astronomical bodies studied range from cold and rocky planets and asteroids to extremely hot and massive bodies, as represented by the sun. This course considers astronomical bodies and their evolution, as well as basic parts of physics, chemistry, etc., required to observe them and understand their structure. The course is suitable for both science and non-science students.

Exclusion: AST101H
Breadth Requirements: Natural Sciences

ASTA02H3 - Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets

The structure and evolution of stars and galaxies is considered, with our own galaxy, the Milky Way, providing the opportunity for detailed study of a well-observed system. Even this system challenges us with many unanswered questions, and the number of questions increases with further study of the universe and its large-scale character. Current models and methods of study of the universe will be considered. The course is suitable for both science and non-science students.

Exclusion: AST121H, AST201H
Breadth Requirements: Natural Sciences

ASTB03H3 - Great Moments in Astronomy

An examination of the people, the background and the events associated with some major advances in astronomy.
Emphasis is given to the role of a few key individuals and to how their ideas have revolutionized our understanding of nature and the Universe. The perspective gained is used to assess current astronomical research and its impact on society.

Prerequisite: 4.0 full credits
Exclusion: AST210H
Breadth Requirements: Natural Sciences

ASTB23H3 - Astrophysics of Stars, Galaxies and the Universe

Overview of astrophysics (except planetary astrophysics). Appropriate level for science students. Structure and evolution of stars, white dwarfs, neutron stars. Structure of Milky Way. Classification of galaxies. Potential theory, rotation curves, orbits, dark matter. Spiral patterns. Galaxy clusters. Mergers. Black holes in active galactic nuclei. Expansion of universe, dark energy.

Prerequisite: MATA30H3 and [MATA36H3 or MATA37H3] and PHYA21H3
Corequisite: MATB41H3
Exclusion: (ASTB21H3), (ASTC22H3), [AST221H and AST222H]
Breadth Requirements: Natural Sciences

ASTC02H3 - Practical Astronomy: Instrumentation and Data Analysis

A hands-on introduction to astronomical observing using the UTSC telescope. Lectures cover topics of astronomical instrumentation and data reduction. Observations of Solar System planets, moons, planetary nebula, globular clusters and galaxies will be made. Students will present their results in the style of a scientific paper and a talk.

Prerequisite: ASTB23H3
Exclusion: AST325H, AST326Y
Enrolment Limits: 16
Breadth Requirements: Natural Sciences

ASTC25H3 - Astrophysics of Planetary Systems

Overview of planetary astrophysics at a level appropriate for science students. Planets as a by-product of star formation: theory and observations. Protostellar/protoplanetary disks. Planetesimal and planet formation. Solar system versus extrasolar planetary systems. Giant planets, terrestrial planets, dwarf planets and minor bodies in the Solar System: interiors and environments.

Prerequisite: MATB41H3 and PHYA21H3
Corequisite: MATB42H3
Exclusion: (ASTB21H3), (ASTC22H3), [AST221H and AST222H]
Breadth Requirements: Natural Sciences

Biological Sciences

Faculty List

- M.C.B. Andrade, B.Sc. (Simon Fraser), M.Sc. (Toronto), Ph.D. (Cornell), Professor
- A. Ashok, B.Sc. (Sheffield), Ph.D. (Brown), Associate Professor, Teaching Stream
- R. Boonstra, B.Sc. (Calgary), Ph.D. (British Columbia), Professor Emeritus
- I.R. Brown, B.Sc. (Carleton), Ph.D. (Texas), Professor
- S.A. Brunt, B.Sc., M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- M.W. Cadotte, B.Sc., M.Sc. (Windsor), Ph.D. (Tennessee), Professor
- I.M. Campbell, B.Sc. (Alberta), M.A., Ph.D. (Toronto), Associate Professor Emeritus
- R.E. Dengler, B.Sc., Ph.D. (California, Davis), Associate Professor Emeritus
- G. Filion, B.Sc. (Concordia), M.Sc. (École Normale Supérieure), Ph.D. (Université Denis Diderot), Assistant Professor
- M.F. Filosa, B.S. (St. Peter's), M.S. (Fordham), Ph.D. (Princeton), Associate Professor Emeritus
- M.J. Fitzpatrick, B.Sc., M.Sc. (Brock), Ph.D. (Toronto), Assistant Professor, Teaching Stream
- R.R. Fulthorpe, B.Sc., M.Sc. (Toronto), Ph.D. (Carleton), Professor
- S. Gazzarrini, B.Sc., M.Sc. (Milan), Ph.D. (Tuebingen), Associate Professor
- E. Gonzales-Vigil, B.Sc. (National Agrarian University), Ph.D. (Michigan State), Assistant Professor
- J.W. Gurd, B.A. (Mount Allison), Ph.D. (McGill), Professor Emeritus
- C. Guzzo, B.Sc., Ph.D. (Queen's), Assistant Professor
- R.E. Harrison, B.Sc. (Winnipeg), M.Sc. (Manitoba), Ph.D. (Toronto), Professor
- C.A. Hasenkampf, B.Sc. (Loyola), M.Sc., Ph.D. (Florida State), Professor
- N.R. Lovejoy, B.Sc., M.Sc. (Toronto), Ph.D. (Cornell), Professor
- J.S. MacIvor, B.Sc. (Guelph), M.Sc. (Saint Mary's), Ph.D. (York), Assistant Professor
- N.E. Mandrak, B.Sc., M.Sc., Ph.D. (Toronto), Professor
- A.C. Mason, B.Sc. (Guelph), M.Sc., Ph.D. (Toronto), Professor
- P. McGowan, B.Sc. (Concordia), M.A., Ph.D. (Duke), Associate Professor
- P.K. Molnar, B.Sc., M.Sc. (Ludwig-Maximilians-Universitat Munich), Ph.D. (Alberta), Assistant Professor
- G.A. Mott, B.Sc. (British Columbia), Ph.D. (Harvard), Assistant Professor
- C. Nalewajko, B.Sc., Ph.D., D.Sc. (University College London), Professor Emerita
- J.E. Nash, B.Sc. (Aberdeen), M.Sc., Ph.D. (Manchester), Associate Professor
- K.N. Persaud, B.Sc. (Toronto), B.Ed. (Western Ontario), Ph.D. (McMaster), Associate Professor, Teaching Stream
- C. Pickett, B.Sc., M.A. (Toronto), Senior Lecturer Emerita
- C. Porteus, B.Sc., M.Sc. (Guelph), Ph.D. (British Columbia), Assistant Professor
- S.G. Reid, B.Sc., Ph.D. (Ottawa), Associate Professor
- C.D. Riggs, B.Sc. (North Carolina), Ph.D. (Florida State), Associate Professor
- J.C. Ritchie, B.Sc. (Aberdeen), Ph.D. (Sheffield), D.Sc. (Aberdeen), F.R.S.C., Professor Emeritus
- J.C. Silver, B.Sc., Ph.D. (CUNY), Professor Emerita
- I. Stehlik, B.Sc., M.Sc., Ph.D. (Zurich), Associate Professor, Teaching Stream
- R. Sturge, B.Sc., M.Sc. (Toronto), Ph.D. (UMBC), Assistant Professor, Teaching Stream
- M.R. Terebiznik, B.Sc., Ph.D. (U.B.A., Buenos Aires, Argentina), Associate Professor
- T.R. Thiele, B.A. (Hamilton College, Clinton, NY), Ph.D. (Oregon), Assistant Professor
- B. Treanor, B.Sc. (Calgary), Ph.D. (Imperial College London), Associate Professor
- G.C. Vanlerberghe, B.Sc., M.Sc. (Western Ontario), Ph.D. (Queen's), Professor

- Y. Wang, B.Sc. (Shanxi University), M.Sc. (Boise State), Ph.D. (Toronto), Assistant Professor
- J.T. Weir, Ph.D. (UBC), Professor
- K.C. Welch, B.Sc. (Trinity University), M.A., Ph.D. (Santa Barbara), Associate Professor
- D.D. Williams, B.Sc. (North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Wales), Professor Emeritus
- G.R. Williams, B.Sc., Ph.D., D.Sc. (Liverpool), F.R.S.C., Professor Emeritus
- J.H. Youson, B.A. (Victoria), M.Sc. (McGill), Ph.D. (Western Ontario), Professor Emeritus
- R. Zhao, B.Sc. (Peking University), Ph.D. (Chinese Academy of Agricultural Sciences), Associate Professor

Associate Chair Undergraduate: Aarthi Ashok Email: biosci-assoc-chair-undergrad@utsc.utoronto.ca

Overview
Biological Sciences offers five Specialist programs: Conservation and Biodiversity; Molecular Biology and Biotechnology, Molecular Biology and Biotechnology Co-op; Human Biology; and Integrative Biology. The Conservation and Biodiversity program enables students to explore the origins and maintenance of the Earth's astonishing biodiversity using a variety of perspectives and approaches. In the Molecular Biology and Biotechnology programs, students investigate the cellular and sub-cellular mechanisms underlying life processes. The Human Biology program emphasizes the biology of the human species and is tailored for students who wish to pursue a career in a health-related field. The Integrative Biology program approaches biological questions in a multidisciplinary fashion, with course work in a range of biology sub-disciplines.

Biological Sciences also offers five Major programs, one Minor program and one Specialist (Joint) program. The Major programs (in Biology, Conservation and Biodiversity; Human Biology; Molecular Biology, Immunology and Disease; and Plant Biology) allow students to combine their studies in biology with studies in either an unrelated program or in a complementary Major program such as Neuroscience, Environmental Science, Biochemistry, Health Studies or Psychology. The Minor program in Biology is intended for students who have an interest in biology but wish to focus their studies in a different discipline. The Specialist (Joint) Program in Paramedicine is offered by Biological Sciences in collaboration with Centennial College. Completion of this unique four-year program leads to a BSc from UTSC and a Paramedic diploma from Centennial College. Students that complete the Centennial diploma are eligible to take the Ministry of Health exams required to qualify as a Primary Care Paramedic. This program is described in the Paramedicine section of the *Calendar*.

Students are advised to consult the specific program requirements for their degree, and, if necessary, to meet with the appropriate program supervisor for advice on completion of their program requirements. In some instances, courses from other University of Toronto campuses or other institutions may be used to satisfy program requirements, but such substitutions must be pre-approved by the program supervisor. Students should check the information that follows thoroughly. Other useful information can be found on the Department of Biological Sciences website.

Pre-program Supervision in Biological Sciences
Biological Sciences has a pre-program supervisor available to advise students who have not yet chosen a program (primarily first-year students) on the degree and program-related matters. Please visit Room SW421D or call 416-287-7404 if you have questions of this nature.

Combined Degree Programs, Honours Bachelor of Science/ Master of Environmental Science
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of

Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Combined Degree Programs options are:

- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the Calendar.

Combined Degree Programs, Honours Bachelor of Science/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Certificate in Biological Sciences Research Excellence
The Certificate in Biological Sciences Research Excellence will recognize students' research accomplishments in experiential, research-based learning experiences throughout their

undergraduate programs. Please see the Certificate in Biological Sciences Research Excellence for more details on the certificate requirements including enrolment in undergraduate research opportunity courses.

Combining Major Programs within Biological Sciences
Students interested in completing a double Major may combine any two of the following programs offered by the Department of Biological Sciences; Major Program in Conservation and Biodiversity (Science), Major Program in Human Biology (Science); Major Program in Molecular Biology, Immunology and Disease (Science); and Major Program in Plant Biology (Science). Although students are permitted to combine these programs, anyone considering doing so is strongly encouraged to complete one of the Department's Specialist programs instead.

The Major Program in Biology (Science) cannot be combined with any other Major programs offered by the Department of Biological Sciences. The Minor Program in Biology (Science) cannot be combined with any Specialist (Joint) or Major programs offered by the Department of Biological Sciences.

Enrolment in Biological Sciences courses
Priority access to B-, C-, and D-level Biology courses is given to students enrolled in Biological Sciences Specialist (Joint) and Major programs and other programs requiring these courses. At the beginning of the Fall/Winter registration period, the courses will be restricted to these students. Provided space is available, the courses will then open up to other students.

Some courses in Biological Sciences (BIO) may include Ancillary fees.

Second Year Core Courses
Students are STRONGLY advised to take ALL of the second year core courses [BIOB10H3, BIOB11H3, BIOB34H3, BIOB38H3, BIOB50H3, BIOB51H3] as well as a core lab courses [BIOB12H3 or BIOB32H3 or BIOB33H3 or BIOB52H3] during their second year of study. This will assist in the selection of upper-level courses, provide the greatest flexibility to satisfy the prerequisites of such courses, and give the background and experience needed to excel in upper-level courses. Failure to take the entire set of core courses in the second year can result in course timetabling conflicts and unfavourable exam schedules (e.g. back-to-back exams) in your upper years.

Required Courses in Cognate Disciplines
Students are strongly advised to take all required first and second-year courses in disciplines such as Chemistry, Physics, Math, and Computer Science before their third year of study. This will avoid course timetabling conflicts and will enable enrolment in upper-level courses in our programs that require these prerequisites.

Experiential Learning and Outreach
Please note, several faculty in Biological Sciences offer experiential learning opportunities in their courses (In-reach) which are advertised on the Current Placement Opportunities website.
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Biological Sciences Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENVIRONMENTAL SCIENCE

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Biological Sciences

- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science

Department of Physical and Environmental Sciences

- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

Application Process:

- Applicants must apply to the Honours Bachelor of Science (HBSc) program, the MEnvSc program, and the CDP.
- Qualified students in Year 3 of their HBSc degree program apply to the MEnvSc program and their chosen CPD through the SGS Online Admission Application system:
    - students will select one of the three fields of study within the MEnvSc program at the time of application:
        - Climate Change Impacts and Adaptation
        - Conservation and Biodiversity, or
        - Terrestrial and Aquatic Systems
    - those accepted will receive a conditional offer to start the MEnvSc program upon completion of their HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MEnvSc program and the selected CDP**, applicants must meet the following admission requirements:

- Be admitted to the HBSc degree and one of the above listed undergraduate programs at UTSC.
- Meet the minimum admission requirements of the School of Graduate Studies and the MEnvSc program.
- Be enrolled full-time and in good standing in the HBSc program:
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Complete the following undergraduate courses as part of the HBSc degree requirements:
    - Students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
        - BIOC63H3 Conservation Biology (0.5 credit)
        - BIOD54H3 Applied Conservation Biology (0.5 credit)
    - Students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
        - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
        - EESD10Y3 Research Project in Environmental Science (1.0 credit)

To be given **full, unconditional admission to the MEnvSc program**, applicants must meet the following admission requirements:

- Maintain a B+ average (CGPA of 3.3) or higher in their final year of study in the HBSc program or over upper-level (C- and D-level) courses.
- Achieve at least a grade of B- (70%) in both of the graduate courses taken in Year 4 of undergraduate study; these courses must be chosen in consultation with the Graduate Program Supervisor:
    - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
    - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
    - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 4: HBSc degree requirements
    - students must complete all HBSc program requirements and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year; where necessary, exceptions will be made for students in Co-op programs;
    - students who receive a conditional offer of admission to the CDP must complete the following undergraduate courses:
        - students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
            - BIOC63H3 Conservation Biology (0.5 credit)
            - BIOD54H3 Applied Conservation Biology (0.5 credit)
        - students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
            - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
            - EESD10Y3 Research Project in Environmental Science (1.0 credit)
    - students must complete 1.0 credit in graduate courses, chosen in consultation with the Graduate Program Supervisor, as follows:
        - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
        - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
        - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Optional registration in the Summer session prior to Year 5:
    - students complete one of the following opportunities:
        - EES 4001H Internship Training (0.5 credit)
        - EES 4003H Academic Training (0.5 credit)
- Year 5: Remaining MEnvSc program and degree requirements.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching

- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics	Mathematics

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Major/Major Co-op in Mathematics	
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);

    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN CONSERVATION AND BIODIVERSITY (SCIENCE)

Supervisor: I. Stehlik Email: biodiversity@utsc.utoronto.ca

This program presents a foundation for understanding how ecology and evolution shape organismal features (from morphology and physiology to behaviour) and the structure and function of communities and ecosystems. Ultimately these processes determine the broad patterns of organization of life on earth and biodiversity. The challenges to biodiversity are daunting. Habitat destruction, biological invasions and climate change are causing loss of species and disruption of ecosystems worldwide. Graduates are trained to understand and actively seek solutions to these problems. This program will show how ecological and evolutionary perspectives can be used to understand and predict the outcome of dynamic interactions among organisms, populations, species, and communities. Students will be well trained to take positions in government agencies, consulting firms or NGO's, able to continue with graduate studies in science for academic careers, or able to pursue careers in business or law related to environmental issues, stewardship and sustainable development.

Note: This program was formerly known as the Specialist in Biodiversity, Ecology & Evolution (BSc).

Enrolment Requirements
Students apply to the Specialist Program in Conservation and Biodiversity after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics and with a minimum cumulative grade point average (CGPA) of at least 2.0.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
This program consists of 14.5 required credits.

A. Required Courses

First Year
1. 1.0 Credit of Introductory Biology Courses

BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences and MATA35H3 Calculus II for Biological Sciences] or
[MATA30H3 Calculus I for Physical Sciences and MATA36H3 Calculus II for Physical Sciences]

4. 0.5 Credit in Physics
Choose from:
PHYA10H3 Physics I for the Physical Sciences
PHYA11H3 Physics I for the Life Sciences

5. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
PSCB57H3 Introduction to Scientific Computing (this course could also be taken in second year)

Second Year
6. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 0.5 Credit of Biology Core Labs
BIOB52H3 Ecology and Evolutionary Biology Laboratory

8. 0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Third Year
9. 2.5 Credits of C-level Ecology and Evolution Foundation Courses
BIOC16H3 Evolutionary Genetics and Genomics
BIOC50H3 Macroevolution
BIOC52H3 Field Ecology

BIOC61H3 Community Ecology and Environmental Biology
BIOC63H3 Conservation Biology

Third/Fourth Year
10. 4.0 credits of C- & D-level courses from Bins 1 and 2 below. This must include at least 1.0 credit from each bin and at least 1.0 credit total at the D-level.

Bin 1: C- & D-level Ecology and Evolution Courses
Choose from:
BIOC51H3 Tropical Biodiversity Field Course
BIOC58H3 Biological Consequences of Global Change
BIOC60H3 Winter Ecology
BIOC65H3 Environmental Toxicology
(BIOC67H3) Inter-University Biology Field Course
BIOD25H3 Genomics
BIOD52H3 Biodiversity and Conservation
BIOD54H3 Applied Conservation Biology
BIOD55H3 Experimental Animal Behaviour
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD60H3 Spatial Ecology
BIOD62H3 Symbiosis: Interactions Between Species
BIOD63H3 From Individuals to Ecosystems: Advanced Topics in Ecology
BIOD66H3 Causes and Consequences of Biodiversity
BIOD67H3 Inter-University Biology Field Course
EESC04H3 Biodiversity and Biogeography

Bin 2: C- & D-level Organismal Biology Courses
Choose from:
BIOC37H3 Plants: Life on the Edge
BIOC40H3 Plant Physiology
BIOC54H3 Animal Behaviour
BIOC59H3 Advanced Population Ecology
BIOC62H3 Role of Zoos and Aquariums in Conservation
BIOD26H3 Fungal Biology & Pathogenesis
BIOD34H3 Conservation Physiology
BIOD37H3 Biology of Plant Stress
BIOD43H3 Animal Movement and Exercise
BIOD45H3 Animal Communication
BIOD48H3 Ornithology
BIOD53H3 Special Topics in Animal Behaviour
EESC30H3 Environmental Microbiology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

B. Senior Research Courses (optional)
Students interested in graduate research are encouraged to take one or more of the independent research courses offered in Biological Sciences as part of their degree.
BIOD95H3 Supervised Study in Biology

BIOD98Y3 Directed Research in Biology
BIOD99Y3 Directed Research in Biology

SPECIALIST PROGRAM IN HUMAN BIOLOGY (SCIENCE)

Supervisor: S.G. Reid Email: human-biology@utsc.utoronto.ca

The Specialist in Human Biology provides a solid foundation of introductory science courses and core biology courses while emphasizing, in the upper years, issues related to human health, the nature of humans and their culture as well as the interaction of the human species with the environment. The first year of the program emphasizes introductory courses in biology, chemistry, calculus, physics and psychology. The second year of the program emphasizes core courses in cell biology, molecular biology, physiology, ecology, evolution and anatomy that provide the basis for continued specialization in the third and fourth years. The upper years of the program emphasize specialized courses in anatomy, biochemistry, endocrinology, immunology, microbiology, physiology, psychology, pathology and pathobiology. This program is suited for those students who wish to go onto health-related fields such as medicine, dentistry, nursing, pharmacy, physiotherapy and health policy/management or graduate studies in these, and other, areas such as physiology, medicine and endocrinology.

Enrolment Requirements
Students apply to the Specialist Program in Human Biology after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics and with a minimum cumulative grade point average (CGPA) of at least 2.0.
Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
This Program consists of 15.0 credits.

Required Courses and Suggested Course Sequence

First Year
1. 1.0 credit in Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 credit in Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 credit in Mathematics
[MATA29H3 Calculus I for the Life Sciences and MATA35H3 Calculus II for Biological Sciences] or [MATA30H3 Calculus I for Physical Sciences and MATA36H3 Calculus II for Physical Sciences]

4. 1.0 credit in Introductory Physics Courses
PHYA11H3 Physics I for the Life Sciences
PHYA22H3 Physics II for the Life Sciences

5. 0.5 credit in Statistics
Choose From:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
6. 3.0 credits in Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 1.0 credit in Biology Core Labs
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy Laboratory

8. 1.0 credit in Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Third/Fourth Years
9. 2.5 credits in C-level Biology Core Courses
Choose From:
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC32H3 Human Physiology I
BIOC34H3 Human Physiology II
BIOC39H3 Immunology

10. 1.5 credits in Additional C-level Biology Courses
Choose From:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC14H3 Genes, Environment and Behaviour
BIOC16H3 Evolutionary Genetics and Genomics
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOC58H3 Biological Consequences of Global Change
BIOC65H3 Environmental Toxicology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

11. 1.0 credit in D-level Biology Courses
Choose From:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD33H3 Comparative Animal Physiology
BIOD35H3 Sports Science
BIOD37H3 Biology of Plant Stress
BIOD43H3 Animal Movement and Exercise
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD65H3 Pathologies of the Nervous System

12. 0.5 credit in Psychology or Health Studies
Choose From:
HLTA02H3 Foundations in Health Studies I
HLTA03H3 Foundations in Health Studies II
HLTB15H3 Introduction to Health Research Methodology
HLTB16H3 Introduction to Public Health
(HLTB17H3) Conceptual Models of Health
HLTB20H3 Contemporary Human Evolution and Variation
(HLTB21H3) Infectious Diseases
HLTB22H3 Biological Determinants of Health
HLTB40H3 Health Policy and Health Systems
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

SPECIALIST PROGRAM IN INTEGRATIVE BIOLOGY (SCIENCE)

Supervisor: R. Sturge Email: integrative-biology@utsc.utoronto.ca

The Integrative Biology program allows students to pursue a specialist program built on a broad, multi-perspective approach towards understanding biological complexity. This program provides students with a solid foundation in core biological areas (cellular and organismal biology, ecology and conservation, genes and development) and builds on this knowledge base in third and fourth years. A key advantage to this program is that it allows students to pursue specialization in more than one area at the same time, providing students with a broad understanding of biology. Many of the biggest issues facing today's planet require scientists that are capable of bringing different and complementary perspectives to look for solutions, and this program provides the coursework and training to help undergraduates build this knowledge base. Students who are interested in careers in conservation biology, ecology, environmental sciences, cellular/organismal biology, as well as ones interested in careers in medicine and other health professions, will benefit from this program.

Enrolment Requirements
Students apply to the Specialist Program in Integrative Biology after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics and with a minimum cumulative grade point average (CGPA) of at least 2.0.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
This program consists of 14.5 required credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences and MATA35H3 Calculus II for Biological Sciences] or
[MATA30H3 Calculus I for Physical Sciences and MATA36H3 Calculus II for Physical Sciences]

4. 0.5 Credit in Physics
Choose from:
PHYA10H3 Physics I for the Physical Sciences
PHYA11H3 Physics I for the Life Sciences

5. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
PSCB57H3 Introduction to Scientific Computing (this course could also be taken in the second year)

Second Year
6. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent

enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 0.5 Credit of Biology Core Labs
Choose from:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy Laboratory
BIOB52H3 Ecology and Evolutionary Biology Laboratory

8. 0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Third/Fourth Year
9. 2.5 Credits of Biology Foundation Courses
BIOC15H3 Genetics
BIOC17H3 Microbiology
[BIOC37H3 Plants: Life on the Edge or BIOC40H3 Plant Physiology]
BIOC54H3 Animal Behaviour
BIOC61H3 Community Ecology

10. 1.0 Credit of Advanced Courses in Cellular and Organismal Biology
Choose from:
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC20H3 Principles of Virology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC23H3 Practical Approaches to Biochemistry
BIOC32H3 Human Physiology I
BIOC34H3 Human Physiology II
[BIOC37H3 Plants: Life on the Edge or BIOC40H3 Plant Physiology; whichever course is not used to fulfill Biology Foundation course requirement]
BIOC39H3 Immunology
BIOC65H3 Environmental Toxicology
NROC34H3 Neuroethology

11. 1.0 Credit of Advanced Courses in Ecology and Conservation
Choose from:
BIOC50H3 Macroevolution
BIOC51H3 Tropical Biodiversity Field Course
BIOC52H3 Ecology Field Course
BIOC58H3 Biological Consequences of Global Change
BIOC59H3 Advanced Population Ecology
BIOC60H3 Winter Ecology
BIOC62H3 Role of Zoos and Aquariums in Conservation
BIOC63H3 Conservation Biology
(BIOC67H3) Inter-University Biology Field Course
EESC04H3 Biodiversity and Biogeography

12. 1.0 Credit of Advanced Courses in Genes and Development
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC16H3 Evolutionary Genetics and Genomics
BIOC19H3 Animal Developmental Biology
BIOC31H3 Plant Development and Biotechnology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

13. 1.0 Credit of D-Level Biology Courses
Choose from:
Any BIO D-level course offered by the Biological Sciences department.

SPECIALIST PROGRAM IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY (SCIENCE)

Supervisor: A. Ashok Email: molecular-biology-biotechnology@utsc.utoronto.ca

The Molecular Biology and Biotechnology program strives to help students construct a broad foundation of knowledge across the major disciplines of biology in the first two years of study, and combines this knowledge with an increasingly analytical and reflective approach to learning. Upon this base, students deepen their knowledge of biological processes that occur at the cellular and molecular level through the course work of their third and fourth years. This is a laboratory-rich program that integrates an understanding of chemical and physical processes with our complex biological systems. Because of broad training in biology and rigorous cross-training in cognate disciplines, graduates are well-positioned to apply to professional and graduate schools or work in a broad range of government regulatory agencies, clinical or research-focused industries and other careers that require the union of strong analytical and technical skills.
Note: This program was formerly known as the Specialist in Cell and Molecular Biology (BSc).

Enrolment Requirements
Students apply to the Specialist Program in Molecular Biology and Biotechnology after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics and with a minimum cumulative grade point average (CGPA) of at least 2.0.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
This program consists of 14.5 required credits.

First Year
1. 1.0 Credit of Introductory Biology Courses

BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences and MATA35H3 Calculus II for Biological Sciences] or
[MATA30H3 Calculus I for Physical Sciences and MATA36H3 Calculus II for Physical Sciences]

4. 1.0 Credit in Physics
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
[PHYA21H3 Physics II for the Physical Sciences or PHYA22H3 Physics II for the Life Sciences]
and
0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in the second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in the second year)

Second Year
5. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

6. 0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

7. 1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Third Year
8. 3.5 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

9. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
PSCB57H3 Introduction to Scientific Computing
(computer science could also be taken in an earlier year)

Third/Fourth Year
10. 0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOD37H3 Biology of Plant Stress

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
11. 0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory

12. 0.5 credit of D-level Research-oriented "Cell & Molecular" Course Work
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology: Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology
Note: Any of these courses not used to satisfy this requirement may be used to fulfill the '0.5 Credit of Cognate Biology Courses'.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY (SCIENCE)

Supervisor: A. Ashok Email: molecular-biology-biotechnology@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Molecular Biology and Biotechnology program strives to help students construct a broad foundation of knowledge across the major disciplines of biology in the first two years of study, and combine this knowledge with an increasingly analytical and reflective approach to learning. Upon this base, students deepen their knowledge of biological processes that occur at the cellular and molecular level through course work of their third and fourth years. This is a laboratory-rich program that integrates an understanding of chemical and physical processes with our complex biological systems. Because of broad training in biology and rigorous cross-training in cognate disciplines, graduates are well-positioned to apply to professional and graduate schools or work in a broad range of government regulatory agencies, clinical or research-focused industries and other careers that require the union of strong analytical and technical skills. The co-op option of the Molecular Biology and Biotechnology program complements and punctuates academic course work with full-time work terms in research laboratories, government, health care, or in public or private industry. These placements help students define and refine their career and/or professional school goals. For information on admissions, fees, work terms and standing in the Program, please see section 6B.5 (Co-operative Programs) or the Arts and Science Co-op section in this *Calendar.*
Note: This program was formerly known as the Specialist Co-operative in Cell and Molecular Biology (BSc).

Enrolment Requirements
The minimum qualifications for entry are 5.0 credits, which must include the following courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [[MATA29H3 and MATA35H3], or [MATA30H3 and MATA36H3]], [PHYA10H3 or PHYA11H3]; and a cumulative GPA of at least 2.75.

Current Co-op Students:
Students admitted to a Co-op Degree Program in their first year of study (i.e. Life Sciences Co-op) may request this Co-op Subject POSt on ACORN only after completion of 5.0 credits (this requirement is unique to the Specialist Co-op program in Molecular Biology and Biotechnology); in addition, students must meet the minimum enrolment requirements for entry as noted above for this program.

Prospective Co-op Students:
In addition to requesting the program on ACORN (and meeting the minimum enrolment requirements above), prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
The program requires students to complete a total of 14.5 credits.

First Year
1. 1.0 Credit of Introductory Biology Courses

BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry I: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences and MATA35H3 Calculus II for Biological Sciences] or
[MATA30H3 Calculus I for Physical Sciences and MATA36H3 Calculus II for Physical Sciences]

4. 1.0 Credit in Physics
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
[PHYA21H3 Physics II for the Physical Sciences or PHYA22H3 Physics II for the Life Sciences]

5. 0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in the second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in the second year)

Second Year
6. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

8. 1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Note: Computer Science might be taken in this year and will enhance Co-op placement options.

Third Year
9. 3.5 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology

BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

10. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
PSCB57H3 Introduction to Scientific Computing

Third/Fourth Year
11. 0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOD37H3 Biology of Plant Stress

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
12. 0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory

13. 0.5 Credit of D-level Research-Oriented "Cell & Molecular" Course Work
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology: Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology
Note: Any of these courses not used to satisfy this requirement can be used to fulfill the '0.5 credit of Cognate Biology Courses.'

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Molecular Biology and Biotechnology and have completed at least 10.0 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 and MATA35H3] or [MATA30H3 and MATA36H3], [PHYA10H3 or PHYA11H3], BIOB10H3, BIOB11H3, BIOB12H3, CHMB41H3 and CHMB42H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN BIOLOGY (SCIENCE)

Supervisor: R. Sturge Email: biology-major@utsc.utoronto.ca

Biology is the study of life and this major program in Biology is meant to provide students with a solid basic knowledge of this vast discipline, while also allowing the student to tailor their program in the upper years toward one or more biological sub-disciplines. Many of the world's most important and timely issues (medical science and disease, conservation and biodiversity, food and energy supplies) are issues that require citizens to have a firm understanding of biological principles and practices. The Major program in Biology (Science) cannot be combined with any other Major program offered by the Department of Biological Sciences.

Enrolment Requirements
Students apply to the Major Program in Biology after completing a minimum of 4.0 full credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics. Students are admitted on the basis of academic performance.
Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
This program consists of 8.0 required credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 0.5 Credit in Mathematics or Statistics
Choose from:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
4. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent

enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

5. 0.5 Credit of Biology Core Labs
Choose from:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy Laboratory
BIOB52H3 Ecology and Evolutionary Biology Laboratory

Third Year
6. 1.5 Credits of Additional C-level Biology Courses
Choose from: Any BIO C-level courses offered by the department.
Note: NROC34H3 (Neuroethology) may also be used toward fulfilling this requirement.

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
7. 0.5 Credit of Additional D-Level Biology Courses
Choose from: Any BIO D-level courses offered by the department. Note: that this includes the Biology Supervised Studies and Directed Research courses (BIOD95H3, BIOD98Y3 and BIOD99Y3).

MAJOR PROGRAM IN CONSERVATION AND BIODIVERSITY (SCIENCE)

Supervisor: I. Stehlik *E-mail*: biodiversity@utsc.utoronto.ca

This program provides background and training in modern biological approaches to the study of biodiversity, ecology, and evolution. The links between these fields are emphasized, and topics covered range from the structure and function of ecosystems to the evolution of behaviour, morphology, and physiology.
Note: This program was formerly known as the Major in Biodiversity, Ecology & Evolution (BSc).

Enrolment Requirements
Students apply to the Major Program in Conservation and Biodiversity after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics. Students are admitted on the basis of academic performance.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
This program consists of 8.5 required credits.

First Year

1. 1.0 Credit of Introductory Biology Courses

BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses

CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 0.5 Credit in Mathematics or Statistics

Choose from:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year

4. 3.0 Credits of Biology Core Courses

BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

5. 0.5 Credit of Biology Core Labs

BIOB52H3 Ecology and Evolutionary Biology Laboratory

Third Year

6. 1.0 Credit of Ecology & Evolution Foundation Courses

Choose from:
BIOC16H3 Evolutionary Genetics and Genomics
BIOC50H3 Macroevolution
BIOC52H3 Field Ecology
BIOC61H3 Community Ecology and Environmental Biology
BIOC63H3 Conservation Biology

7. 1.0 Credit of Other C-level Courses

Choose from:
BIOC37H3 Plants: Life on the Edge
BIOC40H3 Plant Physiology
BIOC51H3 Tropical Biodiversity Field Course
BIOC54H3 Animal Behaviour
BIOC58H3 Biological Consequences of Global Change
BIOC59H3 Advanced Population Ecology
BIOC60H3 Winter Ecology
BIOC62H3 Role of Zoos and Aquariums in Conservation

BIOC65H3 Environmental Toxicology
(BIOC67H3) Inter-University Biology Field Course
EESC04H3 Biodiversity and Biogeography
EESC30H3 Environmental Microbiology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
8. 0.5 Credit of D-level Courses
Choose from:
BIOD25H3 Genomics
BIOD26H3 Fungal Biology & Pathogenesis
BIOD34H3 Conservation Physiology
BIOD43H3 Animal Movement and Exercise
BIOD45H3 Animal Communication
BIOD48H3 Ornithology
BIOD52H3 Biodiversity and Conservation
BIOD53H3 Special Topics in Animal Behaviour
BIOD54H3 Applied Conservation Biology
BIOD55H3 Experimental Animal Behaviour
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD60H3 Spatial Ecology
BIOD62H3 Symbiosis: Interactions Between Species
BIOD63H3 From Individuals to Ecosystems: Advanced Topics in Ecology
BIOD66H3 Causes & Consequences of Biodiversity
BIOD67H3 Inter-University Biology Field Course
EESD15H3 Fundamentals of Site Remediation

MAJOR PROGRAM IN HUMAN BIOLOGY (SCIENCE)

Supervisor: S.G. Reid Email: human-biology@utsc.utoronto.ca

The Major in Human Biology provides training and background in general biology with the opportunity to concentrate on courses in upper years that are related to human health. Upper year courses are available in physiology, cell and molecular biology, anatomy, microbiology, pathology, endocrinology, anthropology, psychology and biochemistry. This program is suitable for students with an interest in applied biology in health sciences or in social sciences related to human health.

Enrolment Requirements
Students apply to the Major Program in Human Biology after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics. Students are admitted on the basis of academic performance.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements:
This program consists of 8.5 credits.

Required Courses and Suggested Course Sequence

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit in Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Introductory Psychology Courses
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

4. 0.5 Credit in Mathematics or Statistics
Choose From:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
5. 2.5 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

6. 0.5 Credit in a Biology Core Lab
Choose From:
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy

Third/Fourth Years
7. 1.5 Credits of C-Level Courses
Choose From:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC16H3 Evolutionary Genetics and Genomics
BIOC17H3 Microbiology
BIOC19H3 Animal Developmental Biology

BIOC20H3 Principles of Virology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC32H3 Human Physiology I
BIOC34H3 Human Physiology II
BIOC35H3 Principles of Parasitology
BIOC39H3 Immunology
BIOC54H3 Animal Behaviour
BIOC58H3 Biological Consequences of Global Change
BIOC65H3 Environmental Toxicology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organisation and Physiology of the Brain

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

8. 0.5 Credit of D-Level Biology Courses
Choose From:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD08H3 Theoretical Neuroscience
BIOD12H3 Protein Homeostasis
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD26H3 Fungal Biology and Pathogenesis
BIOD29H3 Pathobiology of Human Disease
BIOD33H3 Comparative Animal Physiology
BIOD35H3 Sports Science
BIOD43H3 Animal Movement and Exercise
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD65H3 Pathologies of the Nervous System
BIOD95H3 Supervised Study in Biology (topic must be human-related and approved by the program supervisor)
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging

MAJOR PROGRAM IN MOLECULAR BIOLOGY, IMMUNOLOGY AND DISEASE (SCIENCE)

Supervisor: S. Brunt Email: molecular-biology-immunology@utsc.utoronto.ca

This program provides training and background in general biology with the opportunity to concentrate on courses in upper years that are related to immunology, infection and disease. Upper year courses are available in microbiology, immunology, biochemistry and pathobiology of disease. This program is suitable for students with an interest in molecular biology and disease.

Enrolment Requirements
Students apply to the Major Program in Molecular Biology, Immunology and Disease after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in

Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics. Students are admitted on the basis of academic performance.
Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
This program consists of 8.5 credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 0.5 Credit in Mathematics or Statistics
Choose from:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
4. 2.5 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

5. 0.5 Credit in a Biology Core Lab
Choose From:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy

Third/Fourth Years
6. 1.5 Credit of Required C-level Courses
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC39H3 Immunology

7. 1.0 Credit of Additional C-level Courses
Choose from:

BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC19H3 Animal Developmental Biology
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

8. 0.5 credit of D-level Biology Courses
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease

MAJOR PROGRAM IN PLANT BIOLOGY (SCIENCE)

Supervisor: R. Zhao Email: plant-biology@utsc.utoronto.ca

The Major in Plant Biology provides a broad education in all areas of contemporary biology, and affords students an opportunity to concentrate on courses in upper years that are focused on plant biology. This program is suitable for students with an interest in the biochemistry, biotechnology, cell biology, ecology, evolution, genetics, physiology, and/or development of plants.

Enrolment Requirements
Students apply to the Major Program in Plant Biology after completing a minimum of 4.0 full credits, including 1.0 credit in Biology (excluding BIOA11H3), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding MATA02H3) or Statistics. Students are admitted on the basis of academic performance.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's website for more information on program selection.

Program Requirements
Students are required to complete a total of 8.5 credits.

Required Courses and Suggested Course Sequence:

First Year
1. 1.0 credit as follows:
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 credit as follows:
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 0.5 credit from the following:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
4. 2.5 credits as follows:
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

5. 0.5 credit from the following:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB52H3 Ecology and Evolutionary Biology Laboratory

Third Year
6. 2.0 credits as follows:
BIOC31H3 Plant Development and Biotechnology
BIOC37H3 Plants: Life on the Edge
BIOC40H3 Plant Physiology
[BIOC13H3 Biochemistry II: Bioenergetics and Metabolism *or* BIOC15H3 Genetics or BIOC17H3 Microbiology *or* BIOC50H3 Macroevolution]

Third/ Fourth Year
7. 0.5 credit from the following:
BIOC61H3 Community Ecology and Environmental Biology
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD21H3 Advanced Molecular Biology Laboratory
BIOD37H3 Biology of Plant Stress
BIOD62H3 Symbiosis: Interactions Between Species
BIOD26H3 Fungal Biology and Pathogenesis

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
8. 0.5 credit from the following:
[BIOD30H3 Plant Research and Biotechnology: Addressing Global Problems or [any of the following research-based courses if the research utilizes plants: BIOC99H3, BIOD95H3, BIOD98Y3 or BIOD99Y3]]

MINOR PROGRAM IN BIOLOGY (SCIENCE)

Supervisor: I. Stehlik Email: biology-minor@utsc.utoronto.ca

Enrolment in the Minor in Biology is unlimited. The Minor in Biology cannot be combined with any Major or Specialist programs offered by the Department of Biological Sciences.

Program Requirements
Students are required to complete a total of 4.0 credits.

1. 1.0 credit of Introductory Biology courses:
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 3.0 credits in Biology*, of which at least 1.0 credit must be at the C- or D-level.
**NROC34H3 may be used toward fulfilling this requirement.
**BIOA11H3 may not be used towards fulfilling this requirement.

CERTIFICATE IN BIOLOGICAL SCIENCES RESEARCH EXCELLENCE

The Certificate in Biological Sciences Research Excellence will recognize students' research accomplishments in experiential, research-based learning experiences throughout their undergraduate programs.

Enrolment Requirements

Students must be enrolled in any Major or Specialist program offered by the Department of Biological Sciences.

Certificate Requirements

Students must complete a minimum of 1.5 credits as follows:

1. BIOD98Y3*
and any one of the following:
BIOB98H3
BIOB99H3
BIOC99H3*
BIOD99Y3*
*Note: students must earn a grade of A- or higher in these courses in order to be eligible for the Certificate.

2. All students must engage in a least one consultation with the liaison librarian for the Department of Biological Sciences in order to develop their skills in literature mining and using an evidence-based approach to study design and data analysis.

3. Upon completion of the specified courses in component 1 of the Requirements, students must provide an overall summary of their research accomplishments to the Department in order to receive the Certificate

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Biological Sciences Courses

BIOA01H3 - Life on Earth: Unifying Principles

A lecture and laboratory course providing an overview of the origins and cellular basis of life, genetics and molecular biology, evolution and the diversity of microorganisms. **Note:** that both BIOA01H3 and BIOA02H3 **must** be completed prior to taking any other Biology course.

Prerequisite: [Grade 12 Biology or BIOA11H3] and [Grade 12 Advanced Functions or Grade 12 Calculus and Vectors or the Online Mathematics Preparedness Course]
Exclusion: BIO120H, BIO130H, (BIO150Y)
Breadth Requirements: Natural Sciences

BIOA02H3 - Life on Earth: Form, Function and Interactions

A lecture and laboratory course providing an overview of the anatomy and physiology of plants and animals, population biology, ecology and biodiversity. **Note:** that both BIOA01H3 and BIOA02H3 **must** be completed prior to taking any other Biology course.

Prerequisite: [Grade 12 Biology or BIOA11H3] and [Grade 12 Advanced Functions or Grade 12 Calculus and Vectors or the Online Mathematics Preparedness Course]
Exclusion: BIO120H, BIO130H, (BIO150Y)
Breadth Requirements: Natural Sciences

BIOA11H3 - Introduction to the Biology of Humans

An exploration of how molecules and cells come together to build and regulate human organ systems. The course provides a foundation for understanding genetic principles and human disease, and applications of biology to societal needs. This course is intended for non-biology students.

Exclusion: BIOA01H3, BIOA02H3, CSB201H1
Breadth Requirements: Natural Sciences
Note: (1) Priority will be given to students in the Major/Major Co-op in Health Studies - Population Health. Students across all disciplines will be admitted if space permits. (2) Students who have passed BIOA11H3 will be permitted to take BIOA01H3 and BIOA02H3.

BIOB10H3 - Cell Biology

This course is designed to introduce theory and experimental techniques in cell biology. The course examines the structure and function of major animal and plant organelles and integrates this into a discussion of protein biosynthesis, signal-based sorting and intracellular trafficking using the cytoskeleton. Cell motility and cell interactions with the environment will also be examined to provide a solid foundation on the basic unit of life.

Prerequisite: BIOA01H3 and BIOA02H3 and CHMA10H3 and CHMA11H3
Exclusion: (BIOB10Y3), BIO241H, (BIO250Y)
Breadth Requirements: Natural Sciences

BIOB11H3 - Molecular Aspects of Cellular and Genetic Processes

A course focusing on the central dogma of genetics and how molecular techniques are used to investigate cellular processes. Topics include structure and function of the nucleus, DNA replication and cell cycle control, transcription and translation, gene regulation and signal transduction.

Prerequisite: BIOB10H3
Exclusion: BIOB10Y3, BIO230H, (BIO250Y)
Breadth Requirements: Natural Sciences

BIOB12H3 - Cell and Molecular Biology Laboratory

A practical introduction to experimentation in cell and molecular biology. Lab modules will introduce students to concepts and techniques in the general preparation of solutions and buffers, microbiology, molecular biology, biochemistry, microscopy, data analysis, and science communication. This core laboratory course is the gateway for Molecular Biology & Biotechnology Specialists to upper level laboratory offerings.

Prerequisite: CHMA10H3 and CHMA11H3
Corequisite: BIOB11H3 or (BIOB10Y3)
Exclusion: BIO215H
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist programs in Molecular Biology and Biotechnology (Co-op and non-Co-op), Biological Chemistry, Neuroscience (Stage 1, Co-op only), Neuroscience (Cellular/Molecular Stream), and the Major program in Biochemistry. Additional students will be admitted as space permits.

BIOB32H3 - Animal Physiology Laboratory

This course examines physiological mechanisms that control and co-ordinate the function of various systems within the body. The laboratory exercises examine properties of digestive enzymes, characteristics of blood, kidney function, metabolic rate and energetics, nerve function and action potentials, synaptic transmission, skeletal muscle function and mechanoreception.

Corequisite: (BIOB30H3) or BIOB34H3
Exclusion: BIO252Y, BIO270H, BIO271H, (ZOO252Y)
Breadth Requirements: Natural Sciences

BIOB33H3 - Human Development and Anatomy

A lecture and laboratory course which deals with the functional morphology of the human organism. The subject matter extends from early embryo-genesis through puberty to late adult life.

Prerequisite: BIOA01H3 and BIOA02H3
Exclusion: ANA300Y, ANA301H, PMDB33H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students in the Human Biology programs. Additional students will be admitted as space permits.

BIOB34H3 - Animal Physiology

An introduction to the principles of animal physiology rooted in energy usage and cellular physiology. A comparative approach is taken, which identifies both the universal and unique mechanisms present across the animal kingdom. Metabolism, respiration, circulation, water regulation, movement and neural circuits are the areas of principal focus.

Prerequisite: BIOA01H3 and BIOA02H3 and CHMA10H3 and CHMA11H3
Exclusion: BIO204H, BIO270H
Breadth Requirements: Natural Sciences

BIOB35H3 - Essentials of Human Physiology

An exploration of the normal physiology of the human body. Emphasis will be placed on organ systems associated with head and neck, especially nervous, respiratory, muscular, digestive, cardiovascular, and endocrine. The interrelationship among organ systems and how they serve to maintain homeostasis and human health will also be discussed.

Prerequisite: BIOA01H3 or BIOA11H3
Exclusion: BIOC32H3, (BIOC33H3), BIOC34H3, BIO210Y5, PSL201Y1
Breadth Requirements: Natural Sciences
Note: Priority will be given to students in the Specialist Program in Psycholinguistics (Co-op and Non co-op). Additional students will be admitted if space permits.

BIOB38H3 - Plants and Society

How do plants feed the world and which plants have the highest impact on human lives? What is the origin of agriculture and how did it change over time? The human population will climb to 10 billion in 2050 and this will tax our planet's ability to sustain life. Environmentally sustainable food production will become even more integral.

Prerequisite: BIOA01H3 and BIOA02H3
Exclusion: (BIOC38H3), EEB202H
Breadth Requirements: Natural Sciences

BIOB50H3 - Ecology

An introduction to the main principles of ecology, the science of the interactions of organisms with each other and with their environment. The course covers community and population ecology, and provides an emphasis on how ecology relates to other areas of biology, and to contemporary human and environmental issues.

Prerequisite: BIOA01H3 and BIOA02H3
Breadth Requirements: Natural Sciences

BIOB51H3 - Evolutionary Biology

Students learn about development of evolutionary theory, maintenance of genetic variation, mechanisms of evolutionary change, adaptation, and current research topics in evolution.

Prerequisite: BIOA01H3 and BIOA02H3
Breadth Requirements: Natural Sciences

BIOB52H3 - Ecology and Evolutionary Biology Laboratory

An introduction to field, lab and computational approaches to ecology and evolution. Laboratories will explore a variety of topics, ranging from population genetics to community ecology and biodiversity. Some lab exercises will involve outdoor field work.

Prerequisite: BIOA01H3 and BIOA02H3
Corequisite: BIOB50H3 or BIOB51H3
Breadth Requirements: Natural Sciences

BIOB90H3 - Integrative Research Poster Project

In this course, students will develop scientific communication skills by working collaboratively with peers to create an informative scientific poster that will be presented in a poster session modelled on those held at most major scientific conferences. Successful posters will engage the interest of the audience in the topic, clearly and concisely outline understanding gained from the primary literature, and discuss how understanding is enhanced by integrating knowledge.

Notes:
1. Students in all Specialist/Specialist Co-op and Major programs in Biological Sciences are required to complete BIOB90H3 prior to graduation. In order to enroll in BIOB90H3, students must be concurrently enroled in at least one of the corequisites listed.
2. No specific grade will be assigned to BIOB90H3 on transcripts; instead, the grade assigned to work in BIOB90H3 will constitute 10% of the final grade in each of the corequisite courses that the students are concurrently enrolled in.

3. Students must receive a grade of 50% or higher for work in BIOB90H3 in order to fulfill this graduation requirement.

Prerequisite: Restricted to students in the Specialist/Specialist Co-op programs and Major Programs in Biological Sciences.
Corequisite: Concurrently enrolled in at least one of the following: BIOB10H3, BIOB11H3, BIOB34H3, BIOB38H3, BIOB50H3 or BIOB51H3
Breadth Requirements: Natural Sciences

BIOB98H3 - Supervised Introductory Research in Biology

A course designed to facilitate the introduction to, and experience in, ongoing laboratory or field research in biology. Supervision of the work is arranged by mutual agreement between student and instructor.
Students must obtain a permission form (and outline of the planned work) from the Biological Sciences website. This is to be completed and signed by the student and supervisor and then returned to the Biological Sciences departmental office (SW421E).

Notes:
1. Completion of this course can be used to fulfill a course requirement for the Certificate in Biological Sciences Research Excellence. Details can be found in the Biological Sciences Overview section of the Calendar.
2. This course **does not** satisfy any Biological Sciences program requirements.
3. This course is a credit/no credit course.

Prerequisite: At least 4.0 credits including BIOA01H3 and BIOA02H3.
Exclusion: BIOB98H3 may not be taken after or concurrently with: BIOB99H3, BIOD95H3, BIOD98Y3 or BIOD99Y3

BIOB99H3 - Supervised Introductory Research in Biology

A course designed to facilitate the introduction to, and experience in, ongoing laboratory or field research in biology. Supervision of the work is arranged by mutual agreement between student and instructor.
Students must obtain a permission form (and outline of the planned work) from the Biological Sciences website. This is to be completed and signed by the student and supervisor and then returned to the Biological Sciences departmental office (SW421E).

Notes:
1. BIOB99H3 is identical to BIOB98H3 but is intended as a second research experience. In order to be eligible for BIOB99H3, with the same instructor, the student and the instructor will have to provide a plan of study, the scope of which goes beyond the work of BIOB98H3.
2. Completion of this course can be used to fulfill a course requirement for the Certificate in Biological Sciences Research Excellence. Details can be found in the Biological Sciences Overview section of the Calendar.
3. This course **does not** satisfy any Biological Sciences program requirements.

Prerequisite: BIOB98H3
Exclusion: BIOB99H3 may not be taken after or concurrently with BIOD95H3, BIOD98Y3 or BIOD99Y3.

BIOC10H3 - Cell Biology: Proteins from Life to Death

This seminar course builds on fundamental cell biology concepts using primary literature. This course will examine specific organelles and their functions in protein biogenesis, modification, trafficking, and quality control within eukaryotic cells. The experimental basis of knowledge will be emphasized and students will be introduced to hypothesis-driven research in cell biology.

Prerequisite: BIOB11H3 or (BIOB10Y3)
Exclusion: CSB428H, BIO315H
Recommended Preparation: BIOC12H3
Enrolment Limits: 50
Breadth Requirements: Natural Sciences

BIOC12H3 - Biochemistry I: Proteins and Enzymes

A lecture course describing factors involved in determining protein structures and the relationship between protein structure and function. Topics include: amino acids; the primary, secondary, tertiary and quaternary structures of proteins; protein motifs and protein domains; glycoproteins; membrane proteins; classical enzyme kinetics and allosteric enzymes; mechanisms of enzyme action.

Prerequisite: [BIOB11H3 or (BIOB10Y3)] and CHMB41H3
Exclusion: CHMB62H3, BCH210H, BCH242Y, (BCH310H)
Recommended Preparation: CHMB42H3
Breadth Requirements: Natural Sciences

BIOC13H3 - Biochemistry II: Bioenergetics and Metabolism

A lecture course that introduces how cells or organisms extract energy from their environment. The major metabolic pathways to extract energy from carbohydrates, fats and proteins will be discussed, as well as the regulation and integration of different pathways. An emphasis will be placed on real-world applications of biochemistry to metabolism.

Prerequisite: [BIOB11H3 or (BIOB10Y3)] and CHMB41H3
Exclusion: CHMB62H3, BCH210H, BCH242Y, (BCH310H)
Breadth Requirements: Natural Sciences

BIOC14H3 - Genes, Environment and Behaviour

This class will provide a survey of the role of genes in behaviour, either indirectly as structural elements or as direct participants in behaviour. Topics to be covered are methods to investigate complex behaviours in humans and animal models of human disease, specific examples of genetic effects on behaviour in animals and humans, and studies of gene-environment interactions.

Prerequisite: BIOB11H3 or (BIOB10Y3)
Breadth Requirements: Natural Sciences

BIOC15H3 - Genetics

Topics for this lecture and laboratory (or project) course include: inheritance and its chromosomal basis; gene interactions; sources and types of mutations and the relationship of mutation to genetic disease and evolution; genetic dissection of biological processes; genetic technologies and genomic approaches.

Prerequisite: [BIOB11H3 or (BIOB10Y3)] and [PSYB07H3 or STAB22H3]
Exclusion: BIO260H, HMB265H
Breadth Requirements: Natural Sciences

BIOC16H3 - Evolutionary Genetics and Genomics

This course will discuss modern genetic and genomic techniques used to understand the maintenance of genetic variation in nature. Topics include DNA sequence evolution, molecular phylogenetics, methods of detecting selection, sequence alignments, and comparative genomics.

Prerequisite: BIOB51H3
Recommended Preparation: BIOC15H3
Breadth Requirements: Natural Sciences

BIOC17H3 - Microbiology

This course presents an overview of the microbial world and introduces the students, in more detail, to the physiological, cellular and molecular aspects of bacteria. The laboratories illustrate principles and provide training in basic microbiological techniques essential to microbiology and to any field where recombinant DNA technology is used.

Prerequisite: BIOB11H3 or (BIOB10Y3)
Exclusion: MGY377H, (MBY377H)
Breadth Requirements: Natural Sciences

BIOC19H3 - Animal Developmental Biology

Following a discussion of cellular and molecular events in early embryonic life, the development of several model systems will be analyzed such as erythropoiesis, lens development in the eye, spermatogenesis and myogenesis. Particular reference will be given to the concept that regulation of gene expression is fundamental to development.

Prerequisite: BIOB11H3 or (BIOB10Y3)
Exclusion: CSB328H
Breadth Requirements: Natural Sciences

BIOC20H3 - Principles of Virology

This course introduces viruses as infectious agents. Topics include: virus structure and classification among all kingdoms, viral replication strategies, the interactions of viruses with host cells, and how viruses cause disease. Particular emphasis will be on human host-pathogen interactions, with select lectures on antiviral agents, resistance mechanisms, and vaccines.

Prerequisite: BIOB11H3
Exclusion: BIO475H5, CSB351Y1, MGY378H1
Breadth Requirements: Natural Sciences

BIOC21H3 - Vertebrate Histology: Cells and Tissues

A study of the structure of cells and the various tissue types which make up the vertebrate body; epithelial, connective, muscle, nervous, blood, and lymphatic. Emphasis is placed on how form is influenced by function of the cells and tissues.

Prerequisite: [BIOB10H3 or (BIOB10Y3)] and [(BIOB30H3) or BIOB34H3]
Exclusion: ANA300Y
Breadth Requirements: Natural Sciences

BIOC23H3 - Practical Approaches to Biochemistry

A lecture and laboratory course that introduces students to experimental approaches used in biochemical research. Topics include practical and theoretical aspects of: spectrophotometry; chromatography; electrophoresis; enzyme assays, protein purification and approaches to identify protein-protein interactions. Students are expected to solve numerical problems involving these and related procedures.

Prerequisite: BIOB12H3 and BIOC12H3
Exclusion: BCH370H, (BCH371H), BCH377H, BCH378H
Breadth Requirements: Natural Sciences

BIOC31H3 - Plant Development and Biotechnology

A central question of developmental biology is how does a single cell become a complex organism. This lecture course focuses on molecular and cellular mechanisms that control developmental processes in plants, including embryonic, vegetative, reproductive development; hormone signal transduction pathways; analysis of mutants, transgenic plants and their connection to biotechnology.

Prerequisite: BIOB11H3 or (BIOB10Y3)
Exclusion: CSB340H, (BOT340H)
Breadth Requirements: Natural Sciences

BIOC32H3 - Human Physiology I

An introduction to Human Physiology covering the function of neurons, the brain, hormones and our immune systems in both healthy and diseased states.

Prerequisite: BIOB34H3 or NROB60H3
Exclusion: (BIOB30H3), PSL300H
Breadth Requirements: Natural Sciences

BIOC34H3 - Human Physiology II

This course will cover the physiology of the human respiratory, cardiovascular, renal and digestive systems. Topics include cardiac function, ECG, blood flow/pressure regulation, pulmonary mechanics, gas transfer and transport, the control of breathing, sleep-related breathing disorders, kidney function, ion regulation, water balance, acid-base balance and digestive function/regulation. Students will complete a series of computer-simulated laboratory exercises on their own time.

Prerequisite: BIOB34H3 or NROB60H3 or BIO271H
Exclusion: (BIOC33H3), (PSL302Y), PSL301H
Breadth Requirements: Natural Sciences

BIOC35H3 - Principles in Parasitology

This course introduces principles in parasitic lifestyles. Topics that will be covered include common parasite life strategies, host-parasite interactions and co-evolution, parasite immune evasion strategies, impacts on public health, and treatment and prevention strategies.

Prerequisite: BIOB11H3
Breadth Requirements: Natural Sciences

BIOC37H3 - Plants: Life on the Edge

Plants have evolved adaptations to maximize growth, survival and reproduction under various taxing environmental conditions. This course covers the great diversity of plant structures and function in relation to ecology, focusing mainly on flowering plants.

Prerequisite: BIOB38H3 or BIOB50H3 or BIOB51H3
Exclusion: EEB340H
Enrolment Limits: 48
Breadth Requirements: Natural Sciences

BIOC39H3 - Immunology

This course introduces the molecular and cellular basis of the immune system. Topics include self versus non-self recognition, humoral and cell-mediated immune responses, and the structure and function of antibodies. The importance of the immune system in health and disease will be emphasized and topics include vaccination, autoimmunity, and tumour immunology.

Prerequisite: BIOB11H3 or (BIOB10Y3)
Exclusion: IMM340H, IMM341H, IMM350H, IMM351H, (IMM334Y), (IMM335Y)
Breadth Requirements: Natural Sciences

BIOC40H3 - Plant Physiology

An introduction to plant biology. Topics include plant and cell structure, water balance, nutrition, transport processes at the cell and whole plant level, physiological and biochemical aspects of photosynthesis, and growth and development in response to hormonal and environmental cues.

Prerequisite: BIOB11H3 or (BIOB10Y3)
Exclusion: BIO251H
Breadth Requirements: Natural Sciences

BIOC50H3 - Macroevolution

An overview of recent developments in evolutionary biology that focus on large-scale patterns and processes of evolution. Areas of emphasis may include the evolutionary history of life on earth, phylogenetic reconstruction, patterns of diversification and extinction in the fossil record, the geography of evolution, the evolution of biodiversity, and the process of speciation.

Prerequisite: BIOB50H3 and BIOB51H3
Exclusion: EEB362H
Breadth Requirements: Natural Sciences

BIOC51H3 - Tropical Biodiversity Field Course

A course with preparatory lectures on the UTSC campus and 1 week at a field station in Costa Rica where ecological, evolutionary, and practical aspects of tropical biodiversity will be explored. Field work will involve outdoor activities in challenging conditions.

Prerequisite: BIOB50H3 and BIOB51H3 and BIOB52H3 and permission of instructor.
Enrolment Limits: 15
Breadth Requirements: Natural Sciences
Note: Students should contact the instructor 4 months before the start of the course. Additional course fees are applied, and students will need to place a deposit towards the cost of airfare and accommodation.

BIOC52H3 - Ecology Field Course

This course provides students with the opportunity to experience hands-on learning through informal natural history walks, and group and individual research projects, in a small-class setting. The course covers basic principles and selected techniques of field ecology and ecological questions related to organisms in their natural settings. Most of the field work takes place in the Highland Creek ravine.

Corequisite: BIOB50H3 and BIOB51H3
Exclusion: (EEB305H)
Enrolment Limits: 15
Breadth Requirements: Natural Sciences

BIOC54H3 - Animal Behaviour

Survey of the study of animal behaviour, emphasis on understanding behavioural patterns in the context of evolutionary theory. Topics include sexual selection, parental care, social behaviour, conflict and hypothesis testing in behavioural research.

Prerequisite: BIOB50H3 and BIOB51H3
Exclusion: EEB322H, (ZOO322H)
Breadth Requirements: Natural Sciences

BIOC58H3 - Biological Consequences of Global Change

A lecture and tutorial course that addresses the key environmental factor that will dominate the 21st Century and life on the planet: Global Climate Change. The course will examine the factors that influence climate, from the formation of the earth to the present time, how human activities are driving current and future change, and how organisms, populations, and ecosystems are and will respond to this change. Finally, it will cover human responses and policies that can permit an adaptive response to this change.

Prerequisite: BIOB50H3 and BIOB51H3
Exclusion: EEB428H, GGR314H, (BIO428H)
Breadth Requirements: Natural Sciences

BIOC59H3 - Advanced Population Ecology

The study of the interactions that determine the distribution and abundance of organisms on the earth. The topics will include an understanding of organism abundance and the factors that act here: population parameters, demographic techniques, population growth, species interactions (competition, predation, herbivory, disease), and population regulation. It will include an understanding of organism distribution and the factors that act here: dispersal, habitat selection, species interactions, and physical factors.

Prerequisite: BIOB50H3
Exclusion: EEB319H, (BIO319H)
Breadth Requirements: Natural Sciences

BIOC60H3 - Winter Ecology

Canada is characterized by its long and harsh winters. Any Canadian plant or animal has evolved one of three basic survival strategies: (1) migration (avoidance), (2) hibernation, and (3) resistance. These evolutionary adaptations are investigated by the example of common organisms from mainly southern Ontario.

Prerequisite: BIOB50H3 or BIOB51H3
Enrolment Limits: 48
Breadth Requirements: Natural Sciences

BIOC61H3 - Community Ecology and Environmental Biology

An examination of the theory and methodology of community analysis, with an emphasis on the factors regulating the development of communities and ecosystems. The application of ecological theory to environmental problems is emphasized. We will examine the impacts of various factors, such as primary productivity, species interactions, disturbance, variable environments, on community and metacommunity structure, and on ecosystem function. We will also examine the impacts of climate change on the world's ecosystems.

Prerequisite: BIOB50H3
Exclusion: EEB321H, (BIO321H)
Breadth Requirements: Natural Sciences

BIOC62H3 - Role of Zoos and Aquariums in Conservation

This lecture and tutorial course explores the strategic and operational aspects of zoos and aquariums in conservation. Emphasis is on contemporary issues, including the balance between animal welfare and species conservation; nutrition, health and behavioural enrichment for captive animals; *in situ* conservation by zoos and aquariums; captive breeding and species reintroductions; and public outreach/education.

Prerequisite: BIOB50H3 and BIOB51H3
Enrolment Limits: 50
Breadth Requirements: Natural Sciences

BIOC63H3 - Conservation Biology

A lecture and tutorial course offering an introduction to the scientific foundation and practice of conservation biology. It reviews ecological and genetic concepts constituting the basis for conservation including patterns and causes of global biodiversity, the intrinsic and extrinsic value of biodiversity, the main causes of the worldwide decline of biodiversity and the approaches to save it, as well as the impacts of global climate change.

Prerequisite: BIOB50H3 and BIOB51H3
Exclusion: EEB365H, (BIO365H)
Breadth Requirements: Natural Sciences

BIOC65H3 - Environmental Toxicology

An introduction to the scientific study of the effects of toxic chemicals on biological organisms. Standard methods of assessing toxicant effects on individuals, populations, and communities are discussed. Special emphasis is placed on the chemistry of major toxicant classes, and on how toxicants are processed by the human body.

Prerequisite: BIOB50H3 and CHMA10H3 and CHMA11H3
Breadth Requirements: Natural Sciences

BIOC90H3 - Integrative Multimedia Documentary Project

In this course, students will produce engaging, documentary-style multimedia narratives that relay scientific evidence on a topic of interest to a lay audience. In order to create their documentaries, students will distill research findings reported in the primary literature and integrate knowledge from multiple fields of biology.

Notes:

1. Students in all Specialists/Specialist Co-op and Major programs in Biological Sciences are required to complete BIOC90H3 prior to graduation. In order to enroll in BIOC90H3, students must be enrolled in at least one of the following corequisite courses listed.

2. No specific grade will be assigned to BIOC90H3 on transcripts; instead, the grade assigned to work in BIOC90H3 will constitute 10% of the final grade in one of the corequisite courses that the students are concurrently enrolled in.

3. Students must receive a grade of 50% or higher for work in BIOC90H3 in order to fulfill this graduation requirement.

Prerequisite: BIOB90H3. Restricted to students in the Specialist/Specialist Co-op programs and Major Programs in Biological Sciences.
Corequisite: Concurrently enrolled in at least one of the following: BIOC12H3, BIOC14H3, BIOC20H3, BIOC32H3, BIOC34H3, BIOC39H3, BIOC40H3, BIOC54H3, or BIOC61H3.
Breadth Requirements: Natural Sciences

BIOC99H3 - Biology Team Research

In this introduction to academic research, a group of 3-5 students work with a faculty supervisor and TA to develop a research proposal or implement a research project. Prior to registering, students must find a faculty supervisor, form a group, then submit a permission form to the department. The permission form may be downloaded from the Biological Sciences website.

Note: Completion of this course can be used to fulfill a course requirement for the Certificate in Biological Sciences Research Excellence. Details can be found in the Biological Sciences Overview section of the Calendar.

Prerequisite: (1) Enrolment in a UTSC Major or Specialist Subject POSt offered by Biological Sciences and (2) completion of all second year core program requirements and (3) have at least 8.0 credits and (4) a commitment from a Biology faculty member to serve as supervisor and (5) formation of a group that includes at least 2 other students
Breadth Requirements: Natural Sciences

BIOD07H3 - Advanced Topics and Methods in Neural Circuit Analysis

This course will survey different fields in neural circuit research ranging from sensory systems to motor control. Emphasis will be placed on new methodologies used to deconstruct circuit function, including advanced functional imaging, optogenetics, anatomical reconstruction and the latest behavioural approaches.

Prerequisite: BIOC32H3 or NROC34H3 or NROC64H3 or NROC69H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD08H3 - Theoretical Neuroscience

A seminar covering topics in the theory of neural information processing, focused on perception, action, learning and memory. Through reading, discussion and working with computer models students will learn fundamental concepts underlying current mathematical theories of brain function including information theory, population codes, deep learning architectures, auto-associative memories, reinforcement learning and Bayesian optimality.
Same as NROD08H3

Prerequisite: [NROC34H3 or NROC64H3 or NROC69H3] and [MATA29H3 or MATA30H3 or MATA31H3] and [PSYB07H3 or STAB22H3]
Exclusion: NROD08H3
Breadth Requirements: Natural Sciences

BIOD12H3 - Protein Homeostasis

A lecture/seminar course on the cellular mechanisms of protein quality control. Animal and plant models will be used to highlight the mechanisms of action of selected protein folding and degradation machineries critical to cell functions. Primary literature in protein homeostasis and possible consequence of malfunction in eukaryotic cells will also be discussed.

Prerequisite: BIOC10H3 or BIOC12H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD13H3 - Herbology: The Science Behind Medicinal Plants

The use of plants in medicine has been documented for over 2,000 years. Their use is immersed in major ancient civilizations from around the World. This lecture/seminar/lab course will take the knowledge from indigenous medicine as a starting point and expand it with more recent advances in plant biochemistry, genetics and biotechnology.

Prerequisite: BIOC13H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

BIOD17H3 - Seminars in Cellular Microbiology

An overview of the most significant advances in cellular microbiology. The curriculum will include cellular mechanisms of microbial pathogenesis, as well as recognition and elimination of pathogens by cells. Students will be required to participate in class discussions, and give oral presentations of scientific papers.

Prerequisite: BIOC17H3 or BIOC39H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD19H3 - Epigenetics in Health and Disease

A lecture/seminar/discussion class on the emerging field of environmental epigenetics. Course will cover basic epigenetic mechanisms, methods in epigenetic research, epigenetic control of gene function, and the role of epigenetics in normal development and human disease.

Prerequisite: BIOC14H3
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

BIOD20H3 - Special Topics in Virology

This is a lecture/seminar course that will discuss advanced topics in human virology. The course focus will be on human viruses, pathogenicity in human hosts, and current literature on emerging pathogens.

Prerequisite: BIOC20H3
Exclusion: MGY440H1
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD21H3 - Advanced Molecular Biology Laboratory

Applications of molecular technology continue to revolutionize our understanding of all areas of life sciences from biotechnology to human disease. This intensive laboratory, lecture / tutorial course provides students with essential information and practical experience in recombinant DNA technology, molecular biology and bio-informatics.

Prerequisite: BIOB12H3 and BIOC15H3 and BIOC17H3
Corequisite: BIOC12H3 (Note: Although listed as a corequisite, it is recommended that BIOC12H3 be taken in advance of BIOD21H3.)
Enrolment Limits: 48
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist programs in Molecular Biology and Biotechnology (Co-op and non-Co-op). Additional students will be admitted only if space permits.

BIOD22H3 - Molecular Biology of the Stress Response

This course is organized around a central theme, namely the expression of heat shock (stress) genes encoding proteins is important in cellular repair/protective mechanisms. Topics include heat shock transcription factors, heat shock proteins as 'protein repair agents' that correct protein misfolding, and diseases triggered by protein misfolding such as neurodegenerative disorders.

Prerequisite: BIOC10H3 or BIOC12H3 or BIOC15H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD23H3 - Special Topics in Cell Biology

A lecture/seminar/discussion class on contemporary topics in Cell Biology. Students will explore the primary literature becoming familiar with experimental design and methodologies used to decipher cell biology phenomena. Student seminars will follow a series of lectures and journal club discussions.

Prerequisite: BIOC12H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

BIOD25H3 - Genomics

A course considering the principles of genome organization and the utilization of genomic approaches to studying a wide range of problems in biology. Topics to be presented will include innovations in instrumentation and automation, a survey of genome projects, genomic variation, functional genomics, transcription profiling (microarrays), database mining and extensions to human and animal health and biotechnology.

Prerequisite: BIOC15H3
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

BIOD26H3 - Fungal Biology and Pathogenesis

A lecture and tutorial based course designed to provide an overview of the fungal kingdom and the properties of major fungal pathogens that contribute to disease in animals (including humans) and plants. This course will address the mechanisms and clinical implications of fungal infections and host defence mechanisms. Topics include virulence factors and the treatment and diagnosis of infection.

Prerequisite: BIOC17H3 or BIOC39H3
Enrolment Limits: 50
Breadth Requirements: Natural Sciences

BIOD27H3 - Vertebrate Endocrinology

A lecture/discussion class on the structure and function of the major endocrine organs of vertebrates. The course provides knowledge of endocrine systems encompassing hormone biosynthesis, secretion, metabolism, feedback, physiological actions, and pathophysiology. Recent advances in hormone research as well as contemporary issues in endocrinology will be examined.

Prerequisite: BIOB34H3 or BIOC32H3
Recommended Preparation: BIOC34H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD29H3 - Pathobiology of Human Disease

This lecture/seminar format course will critically examine selected topics in human disease pathogenesis. Infectious and inherited diseases including those caused by human retroviruses, genetic defects and bioterrorism agents will be explored. Discussions of primary literature will encompass pathogen characteristics, genetic mutations, disease progression and therapeutic strategies.

Prerequisite: BIOC10H3 or BIOC20H3 or BIOC39H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD30H3 - Plant Research and Biotechnology: Addressing Global Problems

Plant scientists working to address pressing global challenges will give presentations. In advance students will identify terminologies and methodologies needed to engage with the speaker and think critically about the research. Student teams will identify and develop background knowledge and go beyond speaker's presentations with new questions and/or applications.

Prerequisite: BIOB11H3 and [one of BIOC15H3, BIOC31H3, or BIOC40H3]
Enrolment Limits: 30
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Major Program in Plant Biology. Additional students will be admitted if space permits.

BIOD33H3 - Comparative Animal Physiology

This course will examine how various physiological systems and anatomical features are specialised to meet the environmental challenges encountered by terrestrial and aquatic animals. Topics include respiratory systems and breathing, hearts and cardiovascular systems, cardiorespiratory control, animal energetics, metabolic rate, thermoregulation, defenses against extreme temperatures, hibernation and osmotic/ionic/volume regulation.

Prerequisite: (BIOC33H3) or BIOC34H3
Enrolment Limits: 50
Breadth Requirements: Natural Sciences

BIOD34H3 - Conservation Physiology

This is a combined lecture and seminar course that will discuss topics such as climate change and plastics/microplastics effects on the physiology of animals, and physiological tools and techniques used in conservation efforts. The course will focus on how physiological approaches have led to beneficial changes in human behaviour, management or policy.

Prerequisite: BIOB34H3 and [BIOC58H3 or BIOC60H3 or BIOC63H3]
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD35H3 - Sports Science

In this practical introduction to sports science, students will explore how basic science is used to enhance athlete performance. Modules will focus on basic and applied aspects of physiology, biomechanics, strength and conditioning, sports medicine, sports nutrition, and sports psychology. Taught at the Toronto Pan-Am Sports Centre (TPASC).

Prerequisite: (BIOC33H3) or BIOC34H3
Recommended Preparation: Completion of an A-level Physics course
Enrolment Limits: 40
Breadth Requirements: Natural Sciences

BIOD37H3 - Biology of Plant Stress

This course examines resistance mechanisms (anatomical, cellular, biochemical, molecular) allowing plants to avoid or tolerate diverse abiotic and biotic stresses. Topics include: pathogen defence; responses to temperature, light, water and nutrient availability, salinity, and oxygen deficit; stress perception and signal transduction; methods to study stress responses; and strategies to improve stress resistance.

Prerequisite: [BIOB11H3 or (BIOB10Y3)] and [BIOC31H3 or BIOC40H3]
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD43H3 - Animal Movement and Exercise

A lecture and seminar/discussion course covering integrative, comparative animal locomotion and exercise physiology. Topics will include muscle physiology, neurophysiology, metabolism, energetics, thermoregulation and biomechanics. These topics will be considered within evolutionary and ecological contexts.

Prerequisite: (BIOC33H3) or BIOC34H3
Exclusion: HMB472H
Recommended Preparation: Completion of an A-level Physics course.
Enrolment Limits: 50
Breadth Requirements: Natural Sciences

BIOD45H3 - Animal Communication

This course will examine how animals send and receive signals in different sensory modalities, and the factors that govern the evolution and structure of communication signals. Using diverse examples (from bird songs to electric fish) the course will demonstrate the importance of communication in the organization of animal behaviour, and introduce some theoretical and empirical tools used in studying the origins and structure of animal communication.

Prerequisite: BIOC54H3 or NROC34H3
Breadth Requirements: Natural Sciences

BIOD48H3 - Ornithology

An overview of the evolution, ecology, behaviour, and conservation of birds. Field projects and laboratories will emphasize identification of species in Ontario.

Prerequisite: BIOB50H3, BIOB51H3 and one of the following: BIOC50H3; BIOC54H3 or BIOC61H3
Exclusion: EEB386H, EEB384H
Breadth Requirements: Natural Sciences

BIOD52H3 - Biodiversity and Conservation

A seminar exploration of current topics in biodiversity and conservation, including genetic, organismal, and community levels. Examples include DNA barcoding, adaptive radiations, phylogenetic trees, and biodiversity hotspots. Skills development in critical thinking and interpretation of the primary literature is emphasized, with coursework involving group presentations, discussions, and written analyses.

Prerequisite: BIOC50H3 or BIOC63H3
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

BIOD53H3 - Special Topics in Animal Behaviour

An exploration into current topics in the study of the evolutionary and ecological influences on animal behaviour. Topics may include sexual selection and conflict, social behaviour, communication, and behavioural mechanisms. Emphasis will be on current research and the quantitative and qualitative reasoning underlying our ability to understand and predict animal behaviour.

Prerequisite: BIOC54H3
Exclusion: EEB496Y, (BIO496Y)
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

BIOD54H3 - Applied Conservation Biology

Canada has a complex conservation landscape. Through lectures and interactive discussions with leading Canadian conservation practitioners, this course will examine how conservation theory is put into practice in Canada from our international obligations to federal, provincial, and municipal legislation and policies.

Prerequisite: BIOC62H3 or BIOC63H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD55H3 - Experimental Animal Behaviour

A hands-on course emphasizing the logic, creative thinking, and careful methodology required to conduct rigorous research on animal behaviour from an evolutionary perspective. Students will devise and run behavioural experiments, primarily using invertebrate models.

Prerequisite: BIOC54H3
Enrolment Limits: 20
Breadth Requirements: Natural Sciences

BIOD59H3 - Models in Ecology, Epidemiology and Conservation

Modelling is a critical tool used to address urgent resource management questions in ecology, epidemiology and conservation. This practical introduction includes approaches for modelling individuals, populations, species interactions, and communities. Applications include population viability assessments, disease eradication and climate change mitigation.

Prerequisite: BIOB50H3 and [MATA29H3 or MATA30H3 or MATA31H3]
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD60H3 - Spatial Ecology

The study of how space and scale influence ecological patterns and species coexistence. The course will cover three main topics: 1) spatial dynamics, such as spatial spread and dispersal models; 2) species coexistence with metapopulation/metacommunity, neutral and lottery models; and 3) spatial analysis of ecological communities. Basic concepts will be applied to ecological problems such as: species invasions, reserve design and understanding threats to island biodiversity.
Priority will be given to students enrolled in the specialist program in Biodiversity, Ecology and Evolution.

Prerequisite: BIOB50H3 and STAB22H3 and [BIOC59H3 or BIOC61H3]
Breadth Requirements: Natural Sciences

BIOD62H3 - Symbiosis: Interactions Between Species

A species is the basic unit of evolution and symbiotic interactions are integral to the rise of global biodiversity. Using a multidisciplinary approach, this course will study symbiotic systems such as plant-animal, microbe-plant, and microbe-animal interactions. This course thus provides the student with a deeper understanding of how Earth's biodiversity is maintained through natural selection.

Prerequisite: BIOC16H3 or BIOC50H3
Exclusion: EEB340H
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

BIOD63H3 - From Individuals to Ecosystems: Advanced Topics in Ecology

This lecture/seminar course will discuss advanced topics in behavioural ecology, ecosystem and landscape ecology, and evolutionary ecology, with an emphasis on the impacts of past and present species interactions. Students will work both independently and collaboratively throughout the course to strengthen their research, writing, and presentation skills.

Prerequisite: BIOB50H3 and BIOB51H3 and [0.5 credit from the following: BIOC51H3, BIOC52H3, BIOC54H3, BIOC58H3, BIOC59H3, BIOC60H3, BIOC61H3]
Enrolment Limits: 35
Breadth Requirements: Natural Sciences

BIOD65H3 - Pathologies of the Nervous System

An intensive examination of selected pathologies affecting the nervous system such as Alzheimer's and Parkinson's disease, multiple sclerosis, and stroke. These pathologies will be examined from an integrative perspective encompassing the pathogeneses, resulting symptoms, and current therapeutic approaches. This course requires critical examination of research articles.

Prerequisite: [BIOB11H3 or (BIOB10Y3)] and [one of: BIOC32H3, NROC61H3, NROC64H3 or NROC69H3]
Exclusion: (NROD65H3)
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

BIOD66H3 - Causes and Consequences of Biodiversity

This course will combine lecture and student paper projects and presentations to explore the evolutionary and ecological processes that generate patterns of biological diversity as well as how species interactions and ecosystem function are affected by diversity. Of key interest will be how invasions, climate change, and habitat destruction affects diversity and function.

Prerequisite: BIOB51H3 and [BIOC59H3 or BIOC61H3]
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

BIOD67H3 - Inter-University Biology Field Course

Field courses offered by the Ontario Universities Program in Field Biology (OUPFB) in a variety of habitats and countries, usually during the summer. OUPFB modules (courses) are posted online in January, and students must apply by the indicated deadline.

Prerequisite: Varies by module (Permission of course co-ordinator required)
Exclusion: (BIOC67H3)
Breadth Requirements: Natural Sciences
Note: Additional information is provided on the Department of Biological Sciences website http://www.utsc.utoronto.ca/biosci/resources-current-students and on the OUPFB websitehttp://www.oupfb.ca/index.html

BIOD95H3 - Supervised Study in Biology

This course is designed to permit an intensive examination of the primary literature of a select topic. Frequent consultation with the supervisor is necessary and extensive library research is required. The project will culminate in a written report.
Students must obtain a permission form and Supervised Study form from the Biological Sciences website that is to be completed and signed by the intended supervisor, and returned to SW421E. Five sessions of group instruction will form part of the coursework.

Prerequisite: Satisfactory completion of 12.5 credits, of which at least 4.0 credits must be at the B- or C-level in BIO courses. Students must have permission of the instructor. In order to be eligible for BIOD95H3, with the same instructor as BIOD98Y3 or BIOD99Y3, the student and instructor must provide a plan that goes beyond the work of those courses.

BIOD96Y3 - Directed Research in Paramedicine

This course is designed to permit critical analysis of current topics relevant to the broad topic of paramedicine. Students will work independently but under the supervision of an industry leader, practitioner and/or researcher involved in paramedicine, who will guide the in-depth study/research. Students report to the course instructor and paramedicine program supervisor to complete course information and their formal registration. Students must obtain a permission form from the Biological Sciences website that is to be completed, and returned to SW421E.

Prerequisite: Minimum of 14.0 credits including PMDC54Y3 and PMDC56H3 and [PSYB07H3 or STAB22H3]

BIOD98Y3 - Directed Research in Biology

A course designed to permit laboratory or field research or intensive examination of a selected topic in biology. Supervision of the work is arranged by mutual agreement between student and instructor.
Students must obtain a permission form from https:///www.utsc.utoronto.ca/biosci/undergraduate-research-opportunities that is to be completed and signed by the intended supervisor, and returned to SW421E. At that time, the student will be provided with an outline of the schedule and general requirements for the course. 10 sessions of group instruction will form part of the coursework.

Note: Completion of this course can be used to fulfill a course requirement for the Certificate in Biological Sciences Research Excellence. Details can be found in the Biological Sciences Overview section of the Calendar.

Prerequisite: Satisfactory completion of 13.5 credits, of which at least 4.0 credits must be at the B- or C-level in BIO courses; and permission of the instructor.
Exclusion: CSB498Y, EEB498Y

BIOD99Y3 - Directed Research in Biology

Identical to BIOD98Y3 but intended as a second research experience. In order to be eligible for BIOD99Y3, with the same instructor, the student and the instructor will have to provide a plan of study that goes beyond the work of BIOD98Y3.

Note: Completion of this course can be used to fulfill a course requirement for the Certificate in Biological Sciences Research Excellence. Details can be found in the Biological Sciences Overview section of the Calendar.

Prerequisite: Satisfactory completion of 13.5 credits, of which at least 4.0 credits must be at the B- or C-level in BIO courses; and permission of the instructor.
Exclusion: CSB498Y, EEB498Y

Certificates

There are two types of for-credit certificates:

Category 1: is a post-baccalaureate, stand-alone certificate that normally requires completion of an undergraduate degree, or equivalent, for admission.

- Successful completion of the certificate is recorded on the academic transcript;
- Students are registered as undergraduate students and receive a parchment at Convocation.

Category 2: is a certificate that is offered in conjunction with an undergraduate degree program; they require students to be enrolled in a specific University of Toronto undergraduate degree program.

- Successful completion of the certificate is recorded on the academic transcript as a component of the undergraduate degree;
- Students do not receive a separate parchment at Convocation.

CERTIFICATE IN BIOARCHAEOLOGY

The Certificate in Bioarchaeology will provide students with concentrated training in Bioarchaeology, the subdiscipline of Archaeology that focusses on the study of biological materials from archaeological sites, with a particular emphasis on skeletal remains (both human and non-human). Note: This certificate will be available to students as of January 1, 2020.

Enrolment Requirements

Students must be enrolled in either the Specialist or Major program in Evolutionary Anthropology

Certificate Requirements

Students must complete a total of 2.0 credits as follows*:
ANTB80H3
ANTC47H3
ANTC48H3
ANTD35H3

*Students must earn an average GPA of 2.7 across the four courses to be awarded the Certificate.

CERTIFICATE IN BIOLOGICAL SCIENCES RESEARCH EXCELLENCE

The Certificate in Biological Sciences Research Excellence will recognize students' research accomplishments in experiential, research-based learning experiences throughout their undergraduate programs.

Enrolment Requirements

Students must be enrolled in any Major or Specialist program offered by the Department of Biological Sciences.

Certificate Requirements

Students must complete a minimum of 1.5 credits as follows:

1. BIOD98Y3*
and any one of the following:
BIOB98H3
BIOB99H3
BIOC99H3*
BIOD99Y3*
*Note: students must earn a grade of A- or higher in these courses in order to be eligible for the Certificate.

2. All students must engage in a least one consultation with the liaison librarian for the Department of Biological Sciences in order to develop their skills in literature mining and using an evidence-based approach to study design and data analysis.

3. Upon completion of the specified courses in component 1 of the Requirements, students must provide an overall summary of their research accomplishments to the Department in order to receive the Certificate.

CERTIFICATE IN BUSINESS

The Certificate in Business is a part-time program designed to provide students with the skills they need to function as managers in today's rapidly changing workplace. It also gives students who already have degrees in other fields of study an opportunity to focus on business studies. Courses in the Certificate can be used towards various professional designations.

Contact:
Audrey Quirion, Undergraduate Coordinator
Office: IC 240
Tel: 416-287-7271
Email: quirion@utsc.utoronto.ca

Application Process and Admission Requirements:

Please see the Department of Management website for details.

Certificate Requirements:

Students must complete the following:

1. Pass 6.0 credits in Economics for Management Studies courses and Management courses, including:
[[MGEA01H3 and MGEA05H3] or [MGEA02H3 and MGEA06H3]]
MGTA01H3
MGTA02H3

2. Earn a cumulative grade point average of at least 2.00* (if a student's CGPA falls below 2.0. s/he will be removed from the program).
*Students will graduate with honours if their cumulative grade point average is 3.20 or better.

Note: students in their graduating session who intend to take part in the next Convocation must notify the Office of the Registrar of their intention through ACORN. Students who are unable to request graduation through ACORN should contact the Office of the Registrar.

CERTIFICATE IN EVOLUTIONARY ANATOMY

This certificate will provide students with detailed knowledge of skeletal and dental anatomy in humans and related taxa from diverse perspectives, as well as a solid understanding of the evolutionary processes that led to that anatomy.

Enrolment Requirements
Successful completion of an undergraduate degree with a CGPA of 3.0 with a Major or Specialist in any science discipline is required to enrol in the certificate program. Students who have previously completed courses identified as requirements or options in the Certificate can substitute up to 1.0 credit in previously completed courses for the Certificate requirements. Students are not eligible for admission to the Certificate if they have already completed more than 2.0 credits of the included courses (or their equivalents from other universities).

Certificate Requirements

Students must complete 3.0 credits as follows:

1. Core required courses (1.5 credit):
ANTB14H3*
ANTC47H3
ANTC48H3

2. Advanced courses (1.5 credits):
Choose 3 from:
ANTC16H3
ANTC17H3**
ANTC99H3
ANTD17H3
ANTD35H3
ANTD99H3

Notes:
*ANTA01H3 is a prerequisite for ANTB14H3.
**[ANTA01H3 and ANTA02H3] are prerequisites for ANTC17H3.

Students seeking to complete the certificate who have not completed ANTA01H3 and ANTA02H3 will be assessed for admission to ANTB14H3 and/or ANTC17H3 based on their background. In particular, students whose undergraduate degree included Biology courses will normally be permitted to take ANTB14H3 and ANTC17H3 without the prerequisite(s).

CERTIFICATE IN GLOBAL DEVELOPMENT, ENVIRONMENT AND HEALTH (U OF T GLOBAL SCHOLAR)

The Certificate in Global Development, Environment, and Health (U of T Global Scholar) builds upon UTSC's longstanding academic strength in globally-oriented, interdisciplinary, and experiential education. This certificate will facilitate, support and ultimately recognize, this global perspective.

Enrolment Requirements

This Certificate will be open to all students in all degree programs.
The Certificate will be supplementary and concurrent; it cannot be taken on its own and cannot replace any degree-required program (i.e., one Specialist; two Majors; or one Major and two Minors).

Certificate Requirements

Students must complete a minimum of 2.0 credits as follows:

1. 1.0 credits from the following:
IDSA01H3 Introduction to International Development Studies
IDSB11H3 Global Development in Comparative Perspective

2. At least 0.5 credit at the B-level, from the list of electives in Table 1 below.

3. At least 0.5 credit at the C- or D-level from the list of electives in Table 1 below.

Table 1

B-level	AFSB51H3, AFSB54H3, ANTB05H3, ANTB18H3, GGRB28H3, HISB30H3, HISB51H3, HISB58H3, IDSB01H3, IDSB02H3, IDSB04H3, IDSB06H3, POLB90H3, POLB91H3, or SOCB60H3
C-level	AFSC53H3/WSTC10H3, AFSC70H3/HISC70H3, ANTC10H3, ANTC68H3, ANTC89H3, ENGC19H3, ENGC70H3, ENGC71H3, GASC59H3/HISC59H3, GGRC10H3, GGRC25H3, GGRC56H3, HISC45H3, HISC55H3, HISC58H3, HISC75H3, HISC97H3, HLTC44H3,

	HLTC46H3, IDSC10H3, IDSC11H3, IDSC15H3, IDSC17H3, IDSC18H3, MGEC82H3, POLC16H3, POLC53H3, POLC80H3, POLC90H3, POLC91H3, POLC94H3, POLC96H3, POLC97H3, POLC99H3, SOCC25H3, SOCC29H3, SOCC34H3, SOCC52H3, or WSTC13H3
D-level	GASD02H3, GASD03H3, GGRD49H3, HISD31H3, HISD51H3, HISD52H3, HLTD06H3, HLTD13H3, HLTD25H3, HLTD48H3, HLTD49H3, IDSD02H3, IDSD06H3, IDSD10H3, IDSD12H3, IDSD13H3, IDSD19H3, POLD89H3, POLD90H3, POLD91H3, SOCD15H3, SOCD20H3, or SOCD55H3

Chemistry

Faculty List

- S. Dalili, M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- D.J. Donaldson, B.Sc. (Carleton), Ph.D. (Carleton), Professor
- S. Fraser, B.A. (Oxford), Ph.D. (Cambridge), Professor Emeritus
- A. Hadzovic, B.Sc. (Sarajevo), Ph.D. (Toronto), Associate Professor, Teaching Stream
- A. Izmaylov, M.Sc. (Moscow), M.A. (Rice), Ph.D. (Rice), Associate Professor
- K. Kerman, B.Sc., M.Sc. (Aegean), Ph.D. (Japan Advanced Institute of Science and Technology), Associate Professor
- K. Kim, B.Sc., Ph.D. (Toronto), Assistant Professor, Teaching Stream
- B. Kraatz, Vordiplom (Heinrich-Heine), Diplom (Kent at Canterbury), Ph.D. (Calgary), Professor
- R.A. McClelland, B.Sc., Ph.D. (Toronto), Professor Emeritus
- L. Mikhaylichenko, M.Sc., Ph.D. (Krasnodar, Russia), Associate Professor, Teaching Stream
- W. Restivo, B.Sc. (Toronto), Associate Professor, Teaching Stream
- E.L.O. Sauer, B.Sc. (Toronto), Ph.D. (Ottawa), Associate Professor, Teaching Stream
- A. Simpson, B.Sc., Ph.D. (Birmingham), Professor
- M. Simpson, B.Sc.(Alberta), Ph.D. (Alberta), Professor
- R. Soong, B.Sc. (Toronto), Ph.D. (Toronto), Senior Research Associate
- R. Sullan, B.Sc. (Phillipines), Ph.D. (Toronto), Assistant Professor
- J.C. Thompson, B.A., Ph.D. (Cambridge), Professor Emeritus
- T.T. Tidwell, B.S. (Georgia Inst. Tech.), Ph.D. (Harvard), Professor Emeritus
- A. Walker, B.Sc., Ph.D. (Nottingham), Professor Emeritus
- F. Wania, Dipl.Geook. (Bayreuth), Ph.D. (Toronto), Professor
- X. Zhang, B.Sc., M.Sc. (Shanghai), Ph.D. (Basel), Associate Professor
- M. Zimmer-de Iuliis, B.Sc. Ph.D. (Toronto), B.Ed (OISE) Assistant Professor, Teaching Stream

Coordinator of First-Year Studies in Chemistry: M. Zimmer-de Iuliis (416-287-7662) Email: m.zimmer.deiuliis@utoronto.ca

Chemistry can be viewed as both a challenging intellectual pursuit and a powerful, practical tool for developing and handling the resources of our contemporary society. Sound knowledge of the fundamental concepts of chemistry is useful to any student in the Physical and Environmental or Life Sciences.

All Chemistry Specialist programs (Biological Chemistry, Chemistry, and Environmental Chemistry) are accredited by the Canadian Society for Chemistry (CSC). These UTSC programs have met the national standards of education required by the CSC, ensuring that graduating students possess skills in both the core chemical concepts and practical laboratory skills that are necessary to thrive in today's workforce. Graduates of these programs will receive a certificate stating that they have completed a nationally accredited chemistry program. Please visit the Canadian Society for Chemistry - Accreditation website for more information.

The basic courses in chemistry are CHMA10H3 and CHMA11H3 which must be taken by those who wish to take further chemistry courses or who require chemistry for another science. Completion of CHMA10H3 and CHMA11H3 is required before any of the B-level courses in chemistry can be taken.

These are divided according to the following sub-disciplines: Inorganic Chemistry, Analytical Chemistry, Physical Chemistry, Environmental Chemistry and Organic Chemistry. Thereafter, one can proceed to advanced-level courses at the C- and D-level.

Students who wish to enrol in St. George 400-series courses should note that completion of the following groups of courses, together with their co-requisite and prerequisites, will normally ensure admission to the St. George courses indicated, provided that B standing or permission of the instructor is obtained.

To enter St. George Series 430, *complete the following U of T Scarborough courses:*
CHMA10H3
CHMA11H3
CHMB16H3
CHMB31H3
CHMC31Y3

To enter St. George Series 440 (except 447)*, complete the following U of T Scarborough courses:*
CHMA10H3
CHMA11H3
CHMB41H3
CHMB42H3
CHMC41H3/CHMC42H3 and CHMC47H3
Note: Timetabling constraints usually preclude U of T Scarborough C-level and St. George 400-level courses being taken in the same year.

Combined Degree Programs, Honours Bachelor of Science/ Master of Engineering
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Engineering (MEng) offered by the Faculty of Applied Science and Engineering allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEng programs in either Chemical Engineering & Applied Chemistry or Civil Engineering. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Combined Degree Programs, Honours Bachelor of Science/ Master of Environmental Science
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op

programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Combined Degree Programs options are:

- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the Calendar.

Combined Degree Programs, Honours Bachelor of Science/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Guidelines for course selection
Students are urged to take [PHYA10H3 and PHYA21H3] early in their Programs even though PHYA21H3 may not be a prerequisite until third-year physical chemistry is chosen. Thus, the suggested first-year Program in Chemistry includes CHMA10H3, CHMA11H3, MATA30H3, MATA36H3, PHYA10H3 and PHYA21H3. Students interested in Biological Chemistry or Biochemistry should also include BIOA01H3 and BIOA02H3.
Some courses in Chemistry (CHM) may include Ancillary fees.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Chemistry Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENGINEERING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) and Master of Engineering (MEng) allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the Faculty of Engineering & Applied Chemistry MEng programs in either Chemical Engineering & Applied Chemistry or Civil Engineering.

Contact Information:
Mandy Meriano(416-208-2775)
Email: mmeriano@utsc.utoronto.ca

Combined Degree Programs options are:

- Environmental Biology (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering

- Environmental Physics (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering

Application Process:

- UTSC students in Year 3 of one the identified HBSc programs who are interested in one of the identified CDPs must contact Professor M. Meriano before the end of the Fall session.
- Qualified UTSC students will be able to apply to their selected CDP.
- UTSC students who are accepted to the CDP will receive a conditional offer to start the Master of Engineering (MEng) program upon completion of their HBSc program requirements.

Minimum Admission Requirements:

- Applicants must meet the admission requirements of the HBSc program, the School of Graduate Studies, and the MEng program.
- Applicants to the HBSc program must:
    - be enrolled full-time and in good standing;
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer).
- Applicants to the MEng program must:
    - maintain a B+ average (CGPA of 3.3) or higher in Year 3 and Year 4 of their HBSc program;
    - complete the requirements of their HBSc program;
    - be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBSc degree requirements:
    - students must complete all HBSc program requirements and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the CDP and may be offered conditional admission to the MEng program;
    - in Year 4, students who receive a conditional offer of admission to the CDP and MEng:
        - **must complete two prescribed undergraduate engineering half courses** (1.0 credit) as part of the HBSc degree requirements;
        - may complete up to 1.0 credit in graduate courses with the permission of either the Department of Chemical Engineering and Applied Chemistry or Department of Civil Engineering (depending on the selected CDP); these courses can be counted towards the completion of both the HBSc degree requirements and the MEng program and degree requirements.
    - by the end of Year 4, fulfill both the undergraduate program requirements and the undergraduate degree requirements.
- Year 5: Remaining MEng program and degree requirements:
    - conditions of admission are removed;
    - complete 5.0 credits in MEng courses; students who have completed up to 1.0 credit in MEng courses in Year 4 may subtract those courses from the total 5.0 credits required.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENVIRONMENTAL SCIENCE

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Biological Sciences

- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science

Department of Physical and Environmental Sciences

- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

Application Process:

- Applicants must apply to the Honours Bachelor of Science (HBSc) program, the MEnvSc program, and the CDP.
- Qualified students in Year 3 of their HBSc degree program apply to the MEnvSc program and their chosen CPD through the SGS Online Admission Application system:
    - students will select one of the three fields of study within the MEnvSc program at the time of application:
        - Climate Change Impacts and Adaptation
        - Conservation and Biodiversity, or
        - Terrestrial and Aquatic Systems
    - those accepted will receive a conditional offer to start the MEnvSc program upon completion of their HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MEnvSc program and the selected CDP**, applicants must meet the following admission requirements:

- Be admitted to the HBSc degree and one of the above listed undergraduate programs at UTSC.
- Meet the minimum admission requirements of the School of Graduate Studies and the MEnvSc program.
- Be enrolled full-time and in good standing in the HBSc program:
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Complete the following undergraduate courses as part of the HBSc degree requirements:
    - Students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
        - BIOC63H3 Conservation Biology (0.5 credit)
        - BIOD54H3 Applied Conservation Biology (0.5 credit)
    - Students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
        - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
        - EESD10Y3 Research Project in Environmental Science (1.0 credit)

To be given **full, unconditional admission to the MEnvSc program**, applicants must meet the following admission requirements:

- Maintain a B+ average (CGPA of 3.3) or higher in their final year of study in the HBSc program or over upper-level (C- and D-level) courses.
- Achieve at least a grade of B- (70%) in both of the graduate courses taken in Year 4 of undergraduate study; these courses must be chosen in consultation with the Graduate Program Supervisor:
    - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
    - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
    - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 4: HBSc degree requirements
    - students must complete all HBSc program requirements and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year; where necessary, exceptions will be made for students in Co-op programs;
    - students who receive a conditional offer of admission to the CDP must complete the following undergraduate courses:
        - students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
            - BIOC63H3 Conservation Biology (0.5 credit)
            - BIOD54H3 Applied Conservation Biology (0.5 credit)
        - students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
            - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
            - EESD10Y3 Research Project in Environmental Science (1.0 credit)
    - students must complete 1.0 credit in graduate courses, chosen in consultation with the Graduate Program Supervisor, as follows:
        - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
        - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
        - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Optional registration in the Summer session prior to Year 5:
    - students complete one of the following opportunities:
        - EES 4001H Internship Training (0.5 credit)
        - EES 4003H Academic Training (0.5 credit)
- Year 5: Remaining MEnvSc program and degree requirements.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching

- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics	Mathematics

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Major/Major Co-op in Mathematics	
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);

    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN BIOLOGICAL CHEMISTRY (SCIENCE)

This program is intended for students who want to specialize in chemistry, and in particular, its applications to and interactions with living systems. The first year of the program emphasizes learning fundamentals across various disciplines, including biology, chemistry, physics, and math. In the second year, additional coursework in chemistry and biology prepares students to merge these disciplines in more specialized courses later in the program. In their third and fourth years, students will explore the complex chemistry of living systems, including proteins, enzymes and metabolism. Students will also learn how chemistry can be used to study and manipulate these systems through courses in pharmaceutical and biological chemistry. In their fourth year, students will have the opportunity to contribute to the creation of scientific knowledge in this field by participating in a directed research project. The combination of coursework and research experience makes this program ideally suited for students who wish to pursue graduate studies in biological chemistry or a related discipline, or to work in biologically chemistry-related industries. It is also excellent preparation for students wishing to pursue professional schools such as medicine, pharmacy or law.

The biological chemistry specialist program is accredited by the Canadian Society for Chemistry (CSC). It meets the national standards of education required by the CSC, ensuring that graduating students possess skills in both the core chemical concepts and practical laboratory skills that are necessary to thrive in today's workforce. Graduates of these programs will receive a certificate stating that they have completed a nationally accredited chemistry program.

Enrolment Requirements
Students may apply to this program after completing at least 4.0 credits including: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], MATA30H3 and PHYA10H3 with a cumulative grade point average (CGPA) of at least 2.0. Application for admission to the program is made to the registrar through ROSI in April/May and July/August. See the UTSC Office of the Registrar's website for information on the program (Subject POSt) selection.

Program Requirements
The program requires the completion of the following 14.5 credits:

First Year:
BIOA01H3 Life On Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms *or* CHMA12H3 Advanced General Chemistry]
MATA30H3 Calculus I for Physical Sciences

[MATA35H3 Calculus II for Biological Sciences *or* MATA36H3 Calculus II for Physical Sciences]
PHYA10H3 Physics I for the Physical Sciences

Second Year:
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspect of Cellular and Genetic Processes
BIOB12H3 Laboratory for Cell and Molecular Biology
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Second or Third Year:
CHMB16H3 Techniques in Analytical Chemistry
CHMB21H3 Chemical Structure and Spectroscopy
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
STAB22H3 Statistics I

Third Year:
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC23H3 Practical Approaches to Biochemistry
CHMC47H3 Bio-Organic Chemistry

Third or Fourth Year:
CHMC11H3 Principles of Analytical Instrumentation
CHMC31Y3 Intermediate Inorganic Chemistry
[CHMC41H3 Organic Reaction Mechanisms *or* CHMC42H3 Organic Synthesis]

Fourth Year:
CHMD79H3 Topics in Biological Chemistry
1.5 credits in D-level or 400-level CHM courses including one of the following courses:
CHMD90Y3 Directed Research
CHMD91H3 Directed Research
CHMD92H3 Advanced Chemistry Laboratory Course
and
at least 0.5 credit from the following:
CHMD47H3 Advanced Bio-Organic Chemistry
CHMD69H3 Chemical Elements in Living Systems
CHMD71H3 Pharmaceutical Chemistry

SPECIALIST (CO-OPERATIVE) PROGRAM IN BIOLOGICAL CHEMISTRY (SCIENCE)

Co-op Supervisor of Studies: S. Dalili (416-287-7215) Email: sdalili@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Biological Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Biological Chemistry upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 3.5 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, MATA30H3, [MATA35H3 or MATA36H3], and PHYA10H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Biological Chemistry.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Biological Chemistry and have completed at least 7.0 credits, including CHMB16H3. It is strongly recommended that BIOB12H3 be completed prior to the first work term.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN CHEMISTRY (SCIENCE)

Supervisor: Andre Simpson (416-287-7547) Email: andre.simpson@utoronto.ca

This program offers students a deep theoretical and practical learning experience in all aspects of modern chemistry. The first year of the program emphasizes learning fundamentals across various disciplines, including biology, chemistry, physics, and math. As students progress into upper years, this knowledge is applied to specialized courses focusing on the sub-disciplines of chemistry, including organic, inorganic, analytical, physical, and environmental chemistry. Students in this program will have the opportunity to contribute to the creation of scientific knowledge by participating in a directed research project in their fourth year. This program is ideally suited for students who wish to pursue graduate studies in chemistry or a related discipline, or to work in chemistry-related industries.

The chemistry specialist program is accredited by the Canadian Society for Chemistry (CSC). It meets the national standards of education required by the CSC, ensuring that graduating students possess skills in both the core chemical concepts and practical laboratory skills that are necessary to thrive in today's workforce. Graduates of these programs will receive a certificate stating that they have completed a nationally accredited chemistry program.

Enrolment Requirements

Students may apply to this program after completing at least 4.0 credits, including CHMA10H3, [CHMA11H3 or CHMA12H3], PHYA10H3, PHYA21H3, and 1.0 credit in either MATA23H3, MATA30H3 or MATA36H3 with a cumulative grade point average (CGPA) of at least 2.0. Application for admission to the program is made to the registrar through ROSI in April/May and July/August. See the UTSC Office of the Registrar's website for information on the program (Subject POSt) selection.

Program Requirements
The Program requires completion of 14.0 credits as follows:

First Year:
1. 4.0 credits from the following
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms *or* CHMA12H3 Advanced General Chemistry]
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
STAB22H3 Statistics I

Second Year:
2. 4.0 credits from the following
CHMB16H3 Techniques in Analytical Chemistry
CHMB21H3 Chemical Structure and Spectroscopy
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB62H3 Introduction to Biochemistry
MATB41H3 Techniques of Calculus of Several Variables I

Third Year:
3. 3.0 credits from the following
CHMC11H3 Principles of Analytical Instrumentation
CHMC16H3 Analytical Instrumentation
[CHMC20H3 Intermediate Physical Chemistry *or* CHMC21H3 Topics in Biophysical Chemistry]
CHMC31Y3 Intermediate Inorganic Chemistry
[CHMC41H3 Organic Reaction Mechanisms *or* CHMC42H3 Organic Synthesis]

Fourth Year:
4. 3.0 credits from the following
PSCD02H3 Current Questions in Mathematics and Science
and
0.5 credit in any C-level or 300-level CHM course not already taken
and
2.0 credits in any D-level or 400-level CHM course including one of the following:
CHMD90Y3 Directed Research
CHMD91H3 Directed Research
CHMD92H3 Advanced Chemistry Laboratory Course

SPECIALIST (CO-OPERATIVE) PROGRAM IN CHEMISTRY (SCIENCE)

Co-op Supervisor of Studies: S. Dalili (416-287-7215) Email: sdalili@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills

required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Chemistry upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including CHMA10H3, CHMA11H3, MATA30H3, MATA36H3, PHYA10H3 and PHYA21H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Chemistry.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Chemistry and have completed at least 7.0 credits, including CHMB16H3.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)

Supervisor of Studies: Myrna Simpson (416) 287-7234 Email: myrna.simpson@utoronto.ca

This program is intended for students who want an in-depth study of chemistry, with a specialization in how to apply chemistry to solve environmental problems. The first year of the program emphasizes learning fundamentals across various disciplines, including biology, chemistry, physics, math and environmental science. As students progress into upper years, they develop skills in the fundamental areas of chemistry while also taking specialized courses in environmental chemistry. In their fourth year, students have the opportunity to contribute to the creation of scientific knowledge by participating in a directed research project. Students who graduate from this program will be well qualified for positions in government and industry as well as several graduate programs.

This program is accredited by the Canadian Society for Chemistry (CSC). It meets the national standards of education required by the CSC, ensuring that graduating students possess skills in both the core chemical concepts and practical laboratory skills that are necessary to thrive in today's workforce. Graduates of these programs will receive a certificate stating that they have completed a nationally accredited chemistry program.

Students may apply to this program after completing at least 4.0 credits from the following: EESA01H3, EESA06H3, BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], MATA30H3, MATA36H3, and PHYA10H3; in addition, they must have achieved a cumulative grade point average (CGPA) of at least 2.0. Application for admission to the program is made to the Registrar through ACORN. See the UTSC Registrar's website for information on the program (Subject POSt) selection, and application window dates on the following website.

Program Requirements
Total requirements: 16.0 credits

First Year (4.5 credits):
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms *or* CHMA12H3 Advanced General Chemistry]
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
PHYA10H3 Physics I for the Physical Sciences

Second Year (4.5 credits):
CHMB16H3 Techniques in Analytical Chemistry
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB55H3 Environmental Chemistry
EESB15H3 Earth History
and
0.5 credit from the following:
CHMB21H3 Chemical Structure and Spectroscopy
CHMB62H3 Introduction to Biochemistry
and
0.5 credit from the following:
EESB03H3 Principles of Climatology
EESB19H3 Mineralogy

Third Year (4.0 credits):
CHMC11H3 Principles of Analytical Instrumentation
EESC07H3 Groundwater
EESC20H3 Geochemistry
STAB22H3 Statistics I
and
1.5 credit from the following:
CHMC16H3 Analytical Instrumentation
CHMC31Y3 Intermediate Inorganic Chemistry
CHMC41H3 Organic Reaction Mechanisms
CHMC42H3 Organic Synthesis
CHMC47H3 Bio-Organic Chemistry
and
0.5 credit from the following:
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science

Fourth Year (3.0 credits):
CHMD16H3 Environmental and Analytical Chemistry
EESC13H3 Environmental Impact Assessment and Auditing
EESD02H3 Contaminant Hydrogeology
EESD15H3 Fundamentals of Site Remediation
and

1.0 credit from the following, including one of CHMD90Y3, CHMD91H3 and CHMD92H3:
CHMD11H3 Application of Spectroscopy in Chemical Structure Determination
CHMD59H3 Modelling the Fate of Organic Chemicals in the Environment
CHMD89H3 Introduction to Green Chemistry
CHMD90Y3 Directed Research in Chemistry
CHMD91H3 Directed Research in Chemistry
CHMD92H3 Advanced Chemistry Laboratory Course

SPECIALIST (CO-OPERATIVE) PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Environmental Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Chemistry upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.5 credits, including, BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, EESA01H3, EESA06H3, MATA30H3, [MATA35H3 or MATA36H3 or MATA37H3] and PHYA10H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Environmental Chemistry.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Environmental Chemistry and have completed at least 7.0 credits, including CHMB16H3.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are

appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN BIOCHEMISTRY (SCIENCE)

Supervisor Email: biochemistry-major@utsc.utoronto.ca

The Major program in Biochemistry provides students with the opportunity to explore the chemistry of living systems. In the first two years, students take a suite of core courses in both biology and chemistry. In later years, students merge these disciplines through courses that explore the chemistry of proteins, enzymes and metabolism. This program is intended for students who are interested in biochemistry, but who do not wish to complete the more focused specialist in biological chemistry. The program is also excellent preparation for students wishing to pursue professional schools such as medicine, pharmacy or law.

Program Requirements

Students should complete the following 9.0 credits:

First Year:
1. 3.0 credits from the following

BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms *or* CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
[MATA35H3 Calculus II for Biological Sciences *or* MATA36H3 Calculus II for Physical Sciences]

Second and Later Years:
2. 6.0 credits from the following
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspect of Cellular and Genetic Processes
BIOB12H3 Cell & Molecular Biology Laboratory
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC23H3 Practical Approaches to Biochemistry
CHMB16H3 Techniques in Analytical Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMC47H3 Bio-Organic Chemistry
and

0.5 credit from the following:
CHMB20H3* Chemical Thermodynamics and Elementary Kinetics
CHMB23H3* Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMC11H3 Principles of Analytical Instrumentation
CHMC41H3 Organic Reaction Mechanisms
CHMC42H3 Organic Synthesis
* If CHMB20H3 or CHMB23H3 is selected, PHYA10H3 is required.

and
0.5 credit from the following:

CHMD47H3 Advanced Bio-Organic Chemistry

CHMD69H3 Chemical Elements in Living Systems

CHMD71H3 Pharmaceutical Chemistry

CHMD79H3 Topics in Biological Chemistry

Note: This program cannot be combined with the Major Program in Chemistry. However, when students are selecting their course of studies, they should refer to the University of Toronto guidelines for program breadth and depth requirements (see Degree Requirements).

MAJOR (CO-OPERATIVE) PROGRAM IN BIOCHEMISTRY (SCIENCE)

Co-op Supervisor of Studies: S. Dalili (416-287-7215) Email: sdalili@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Biochemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Biochemistry upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3] and [MATA35H3 or MATA36H3], plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Biochemistry.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Biochemistry and have completed at least 7.0 credits, including CHMB16H3. It is strongly recommended that BIOB12H3 be completed prior to the first work term.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN CHEMISTRY (SCIENCE)

Supervisor: S. Mikhaylichenko (416-287-7207) Email: mikhay@utsc.utoronto.ca

The Major program in Chemistry provides students with an introduction to all major sub-disciplines within chemistry, including analytical, biological, inorganic, organic and physical chemistry. Students will develop both theoretical knowledge and practical lab skills throughout their course work. This program is intended for students who are interested in chemistry, but who do not wish to complete the more focused specialist program.

Program Requirements
Students should complete the following 8.5 credits:

First Year:

CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms or CHMA12H3 Advanced General Chemistry]
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences

PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

Second and Later Years:
CHMB16H3 Techniques in Analytical Chemistry
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB62H3 Introduction to Biochemistry
and
2.5 credits in CHM of which at least 2.0 credits must be at the C- or D-level and 0.5 credit at the D-level. 0.5 of these C- or D-level credits must include a laboratory component.**
** Students should note that if they are going to select CHMC20H3/CHMC21H3, MATA23H3 and MATB41H3 will need to be taken in addition to their other program requirements.

Note: This program cannot be combined with the Major Program in Biochemistry.

MAJOR (CO-OPERATIVE) PROGRAM IN CHEMISTRY (SCIENCE)

Co-op Supervisor of Studies: S. Dalili (416-287-7215) Email: sdalili@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Chemistry upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including CHMA10H3, CHMA11H3, MATA30H3, MATA36H3, PHYA10H3 and PHYA21H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Chemistry.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Chemistry and have completed at least 7.0 credits, including CHMB16H3.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

Chemistry Courses

CHMA10H3 - Introductory Chemistry I: Structure and Bonding

This course will introduce the study of chemical properties and transformations of matter. The course starts with the quantum mechanical model of the atom and the principles of how the periodic table is organized. Key reaction types are explored including acid/base, redox, and precipitation as well as a quantitative description of gases. Bonding and structure in chemical compounds is examined followed by a close look at solutions, solids and intermolecular forces. The course concludes with nuclear chemistry. This course includes a three-hour laboratory every other week.

Exclusion: CHM120H5, CHM151Y1
Recommended Preparation: Grade 12 Chemistry and [Grade 12 Advanced Functions or Grade 12 Calculus] are highly recommended
Breadth Requirements: Natural Sciences
Note: [MATA29H3 or MATA30H3] and [MATA35H3 or MATA36H3] are required for some higher level Physical and Environmental Sciences courses.

CHMA11H3 - Introductory Chemistry II: Reactions and Mechanisms

This course quantitatively examines reactions and equilibria in chemical systems with an emphasis on their thermodynamic properties and chemical kinetics. The course begins with a close examination of solutions followed by dynamic chemical equilibrium. This leads directly to acid/base and solubility equilibria and thermochemistry, including calorimetry. The course concludes with thermodynamics, kinetics and electrochemistry with a strong emphasis on the how these are connected to Gibbs Free Energy. This course includes a three hour laboratory every other week.

Prerequisite: CHMA10H3
Exclusion: CHMA12H3, CHM110H5, CHM135H1, CHM139H1, CHM151Y1
Recommended Preparation: [MATA29H3 or MATA30H3]
Breadth Requirements: Natural Sciences
Note: [MATA29H3 or MATA30H3] and [MATA35H3 or MATA36H3] are required for some higher level Physical and Environmental Sciences courses.

CHMA12H3 - Advanced General Chemistry

This course will build on the topics from CHMA10H3 and CHMA11H3 including a close examination of solutions, dynamic chemical equilibrium, acid/base and solubility equilibria and thermochemistry, including calorimetry and thermodynamics, kinetics and electrochemistry as they relate to Gibbs Free Energy. In this course, students will explore these ideas in more detail both from a theoretical and practical point of view. The lecture portion will focus on how chemical concepts are applied in cutting edge research. The weekly laboratory period will provide students with access to the most current equipment used in both industrial and research settings as well as workshops that will explore how to analyze and extract data from published, peer-reviewed journal articles.

Prerequisite: CHMA10H3 with a grade of 70% or higher and [MATA29H3 or MATA30H3]
Exclusion: CHMA11H3, CHM151Y1, CHM135H1, CHM110H5
Enrolment Limits: 100

CHMB16H3 - Techniques in Analytical Chemistry

An introduction to the principles and methods of classical analysis and the provision of practical experience in analytical laboratory techniques. The course deals primarily with quantitative chemical analysis. Classical methods of volumetric analysis, sampling techniques, statistical handling of data are studied, as well as a brief introduction to spectro-chemical methods. This course includes a four hour laboratory every week.

Prerequisite: CHMA10H3 and [CHMA11H3 or CHMA12H3] and [MATA29H3 or MATA30H3] and [MATA35H3 or MATA36H3]
Exclusion: CHM211H5, CHM217H1
Recommended Preparation: STAB22H3
Breadth Requirements: Natural Sciences

CHMB20H3 - Chemical Thermodynamics and Elementary Kinetics

The concept of chemical potential; phase equilibria; solutions; chemical equilibria (including electrochemical applications); elementary reactions; multi-step and coupled reactions (with biochemical applications); elementary collision theory and transition state theory. This course includes a weekly tutorial.

Prerequisite: [CHMA11H3 or CHMA12H3] and [MATA35H3 or MATA36H3] and PHYA10H3
Exclusion: CHMB23H3, CHM220H1, CHM222H1, CHM225Y1, JCP221H5
Breadth Requirements: Natural Sciences
Note: PHYA21H3 and MATB41H3 are prerequisites for the C-level Physical Chemistry courses.

CHMB21H3 - Chemical Structure and Spectroscopy

This course uses quantum mechanics to describe atomic and molecular structure and bonding. The theory of these systems is treated first and their spectroscopy afterwards. The following topics are covered: motivation for quantum mechanics, Schrödinger's equations, quantum postulates and formalisms, solutions of the time-independent Schrödinger equation for model systems (particle in a box, harmonic oscillator, rigid rotor, hydrogen-like atoms), angular momentum operator, electron spin, many electron atoms, theories of chemical bonding (valence bond theory and molecular orbital theory), quantum mechanics of the internal motion of molecules, spectroscopy of atomic and molecular systems.

Prerequisite: CHMB20H3
Exclusion: CHM223H1, CHM225Y1
Recommended Preparation: MATA23H3
Breadth Requirements: Natural Sciences

CHMB23H3 - Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice

This course explores the concepts of chemical potential, phase equilibria, solutions, chemical equilibria (including electrochemical applications), elementary reactions, multi-step and coupled reactions (with biochemical applications), elementary collision theory and transition state theory.

Prerequisite: [CHMA11H3 or CHMA12H3] and [MATA35H3 or MATA36H3] and PHYA10H3
Exclusion: CHMB20H3, CHM220H1, CHM222H1, CHM225Y1, JCP221H5
Enrolment Limits: Restricted to students in the following programs: Specialist in Biological Chemistry, Specialist in Chemistry, Major in Biochemistry, Major in Chemistry
Breadth Requirements: Natural Sciences
Note: 1. Lectures are shared with CHMB20H3. 2. PHYA21H3 and MATB41H3 are prerequisites for the C-level Physical Chemistry courses.

CHMB31H3 - Introduction to Inorganic Chemistry

Fundamental periodic trends and descriptive chemistry of the main group elements are covered. The topics include structures, bonding and reactivity; solid state structures and energetics; and selected chemistry of Group 1, 2, and 13-18. The course has an accompanying practical (laboratory) component taking place every second week.

Prerequisite: CHMA10H3 and [CHMA11H3 or CHMA12H3]
Exclusion: CHM238Y, CHM231H
Breadth Requirements: Natural Sciences

CHMB41H3 - Organic Chemistry I

This course begins with a review of chemical bonding in organic structures, followed by an in depth look at conformational analysis and stereochemistry. It explores the reactivity of organic molecules, starting with acid-base reactions, simple additions to carbonyl compounds, reactions of alkenes and alkynes, and substitution reactions. The course includes weekly tutorials and a four hour laboratory every other week.

Prerequisite: [CHMA11H3 or CHMA12H3]
Exclusion: CHM136H1, CHM138H1, CHM151Y1, CHM242H5
Breadth Requirements: Natural Sciences

CHMB42H3 - Organic Chemistry II

This course builds on the topics seen in Organic Chemistry I. Major reactions include electrophilic and nucleophilic aromatic substitutions, and the chemistry of carbonyl compounds. Spectroscopic methods for structure determination are explored (NMR, MS, IR), along with the chemistry of biologically important molecules such as heterocycles and carbohydrates. This course includes a four-hour laboratory every other week, as well as weekly one-hour tutorials.

Prerequisite: [CHMA11H3 or CHMA12H3] and CHMB41H3
Exclusion: CHM243H5, CHM247H1, CHM249H1
Breadth Requirements: Natural Sciences

CHMB43Y3 - Organic Chemistry I and II

This course provides a comprehensive introduction to the field of organic chemistry. Major topics include organic acids/bases, stereochemistry, substitution/elimination mechanisms, reactions of alkenes/alkynes, radicals, aromatic compounds, carbonyl compounds, oxidation/reduction, radicals, spectroscopy, heterocycles and carbohydrates. Includes a 4 hour lab and 6 hours of lecture each week.

Prerequisite: Completion of at least 4.0 credits, including CHMA10H3 and [CHMA11H3 or CHMA12H3]. Minimum cumulative GPA of 2.7. Permission of instructor.
Exclusion: CHMB41H3, CHMB42H3, CHM138H, CHM151Y, CHM247H, CHM249H, CHM242H, CHM245H
Enrolment Limits: 44
Breadth Requirements: Natural Sciences

CHMB55H3 - Environmental Chemistry

An investigation of aspects of chemical substances and processes as they occur in the environment, including both naturally occurring and synthetic chemicals.
This course will include an introduction to atmospheric chemistry, aqueous chemistry, some agricultural and industrial chemistry, and chemical analysis of contaminants and pollutants.

Prerequisite: CHMA10H3 and [CHMA11H3 or CHMA12H3]
Exclusion: CHM310H
Breadth Requirements: Natural Sciences

CHMB62H3 - Introduction to Biochemistry

This course is designed as an introduction to the molecular structure of living systems. Topics will include the physical and chemical properties of proteins, enzymes, fatty acids, lipids, carbohydrates, metabolism and biosynthesis. Emphasis will be placed on the relationships between the chemical structure and biological function.

Prerequisite: CHMA10H3, [CHMA11H3 or CHMA12H3], CHMB41H3
Exclusion: BIOC12H3, BIOC13H3, BCH210H, BCH242Y, BCH311H, CHM361H, CHM362H
Breadth Requirements: Natural Sciences
Note: This course cannot be taken by students enrolled in the Specialist program in Biological Chemistry and Major program Biochemistry.

CHMC11H3 - Principles of Analytical Instrumentation

An introduction to the workings and application of modern analytical instrumentation. A range of modern instrumentation including NMR spectroscopy, Mass Spectrometry, Microscopy. Light Spectroscopy (visible, Ultra Violet, Infrared, Fluorescence, Phosphorescence), X-ray, Chromatography and electrochemical separations will be addressed. Principles of measurement; detection of photons, electrons and ions; instrument and experiment design and application; noise reduction techniques and signal-to-noise optimization will be covered.

Prerequisite: CHMB16H3
Exclusion: CHM317H1, CHM311H5
Recommended Preparation: CHMB20H3 and CHMB21H3
Breadth Requirements: Natural Sciences

CHMC16H3 - Analytical Instrumentation

A laboratory course to complement CHMC11H3, Principles of Analytical Instrumentation.
This course provides a practical introduction and experience in the use of modern analytical instrumentation with a focus on the sampling, sample preparation (extraction, clean-up, concentration, derivatization), instrumental trace analysis and data interpretation of various pharmaceutical, biological and environmental samples.
This course includes a four hour laboratory every week.

Prerequisite: CHMC11H3
Exclusion: CHM317H1, CHM396H5
Breadth Requirements: Natural Sciences

CHMC20H3 - Intermediate Physical Chemistry

Basic statistical mechanics and applications to thermochemistry and kinetics; intermolecular interactions; concepts in reaction dynamics.

Prerequisite: CHMB23H3 and CHMB21H3 and MATB41H3 and PHYA21H3
Exclusion: CHM328H1, JCP322H5
Breadth Requirements: Natural Sciences

CHMC21H3 - Topics in Biophysical Chemistry

Advanced topics in Physical Chemistry with emphasis on biochemical systems. Spectroscopic methods for (bio) molecular structure determination, including IR, NMR, UV/VIS; colloid chemistry; polymers and bio-polymers, bonding structure and statistical mechanics; physical chemistry of membranes, active transport and diffusion; oscillatory (bio)chemical reactions.

Prerequisite: [CHMB20H3 or CHMB23H3] and CHMB21H3 and MATB41H3 and PHYA21H3
Breadth Requirements: Natural Sciences

CHMC25H3 - Quantum Chemistry

This course provides a comprehensive introduction to the field of computational quantum chemistry. It is organized to give a hands-on experience in applying modern computational methods (e.g. density functional theory) for investigating various physical properties of molecules and materials: vibrational and electronic spectroscopy, magnetic and electric field response properties.

Prerequisite: CHMB21H3 or PHYB56H3. Minimum cumulative GPA of 2.7. Permission of instructor.
Enrolment Limits: 40
Breadth Requirements: Natural Sciences

CHMC31Y3 - Intermediate Inorganic Chemistry

A detailed discussion of the structure, bonding, spectroscopy and reactivity of transition metal compounds. After an overview of descriptive chemistry, the focus is on coordination and organometallic chemistry, with an introduction to catalysis and biocoordination chemistry. The laboratory focuses on intermediate and advanced inorganic syntheses, and classical and instrumental characterization methods. This laboratory is six hours in duration and occurs every week.

Prerequisite: CHMB16H3 and [CHMB20H3 or CHMB23H3] and CHMB31H3 and CHMB42H3
Exclusion: CHM338H and CHM331H
Enrolment Limits: 20
Breadth Requirements: Natural Sciences
Note: Priority will be given to students in the Specialist programs in Biological Chemistry and Chemistry.

CHMC41H3 - Organic Reaction Mechanisms

Theory and mechanisms of organic reactions; principles of structure, introduction to aromaticity, spectroscopy and polymers. Theories of bonding. The laboratory experiments are designed to complement the topics covered in lectures. Offered in odd numbered years, alternating years with CHMC42H3.
This course includes a four hour laboratory every week.

Prerequisite: CHMB41H3 and CHMB42H3
Exclusion: CHM341H5, CHM348H1
Breadth Requirements: Natural Sciences

CHMC42H3 - Organic Synthesis

Principles of synthesis organic and functional group transformations; compound stereo-chemistry, spectroscopy and structure elucidation. Offered in even-numbered years alternating with CHMC41H3.
This course includes a four hour laboratory every week.

Prerequisite: CHMB41H3 and CHMB42H3
Exclusion: CHM342H1, CHM343H1, CHM345H5
Breadth Requirements: Natural Sciences

CHMC47H3 - Bio-Organic Chemistry

The chemistry of heterocycles, nucleic acids, terpenes, steroids and other natural products; amino acids, proteins and carbohydrates; introduction to enzyme structure and catalysis.
This course includes a four hour laboratory every week.

Prerequisite: CHMB41H3 and CHMB42H3
Exclusion: CHM347H1, CHM347H5
Breadth Requirements: Natural Sciences

CHMD11H3 - Application of Spectroscopy in Chemical Structure Determination

In this course students will learn about the following analytical techniques used in organic structure determination: mass spectrometry, IR spectroscopy, NMR spectroscopy, and ultraviolet-visible spectroscopy. There will be focus on a systematic approach in structure determination through various spectroscopy. Students will receive hands-on training in spectral interpretation, processing and analysis as well as training on the use of different computer software for the purpose of analysis.

Prerequisite: CHMB16H3 and CHMC11H3
Exclusion: CHM442H5
Enrolment Limits: 16; additional students will be admitted as space permits.
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op programs in Environmental Chemistry.

CHMD16H3 - Environmental and Analytical Chemistry

Students will learn about analytical techniques used in environmental chemistry, including: gas and liquid chromatography, mass spectrometry, atomic absorption, and ultraviolet-visible spectroscopy. Environmental sampling and ecotoxicology will also be covered. Students will carry out laboratory analyses and receive hands-on training with analytical instrumentation commonly used in environmental chemistry.

Prerequisite: CHMB55H3 and CHMC11H3
Exclusion: CHM317H, CHM410H
Enrolment Limits: 18
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op in Environmental Chemistry. Additional students will be admitted as space permits.

CHMD39H3 - Topics in Inorganic Chemistry

Advanced topics in inorganic chemistry will be covered at a modern research level. The exact topic will be announced in the Winter Session prior to the course being offered.

Prerequisite: Permission of the instructor. Normally only for individuals who have completed fifteen full credits, including at least two C-level Chemistry courses, and who are pursuing one of the Chemistry Programs.

CHMD47H3 - Advanced Bio-Organic Chemistry

This course will teach biochemical reactions in the context of Organic Chemistry. This course will build on topics from CHMC47H3. Application of enzymes in organic synthesis, chemical synthesis of complex carbohydrates and proteins, enzyme catalyzed proton transfer reactions and co-enzymes will be discussed in depth with recent literature examples. Experiential learning is an integral part of this course. Students will explore the applications of Bio-Organic Chemistry in healthcare and industrial settings as part of an experiential learning project

Prerequisite: BIOC12H3 and BIOC13H3 and CHMC47H3
Exclusion: CHM447H
Recommended Preparation: CHMB20H3
Enrolment Limits: 30-40

CHMD59H3 - Modelling the Fate of Organic Chemicals in the Environment

This course introduces quantitative approaches to describe the behaviour of organic chemicals in the environment. Building upon a quantitative treatment of equilibrium partitioning and kinetically controlled transfer processes of organic compounds between gaseous, liquid and solid phases of environmental significance, students will learn how to build, use and evaluate simulation models of organic chemical fate in the environment. The course will provide hands-on experience with a variety of such models.

Prerequisite: Permission of the instructor. Normally recommended for individuals who have completed 15.0 credits, including at least 1.0 credit at the C-level in CHM courses, and who are enrolled in one of the Chemistry programs.
Exclusion: JNC2503H, CHE460H1

CHMD69H3 - Bioinorganic Chemistry

This course will explore the role of the chemical elements other than “the big six” (C, H, O, N, P, S) in living systems, with a focus on metal cations. The topic includes geochemistry and early life, regulation and uptake of metallic elements, structure-function relationships in metalloproteins.

Prerequisite: [[BIOC12H3 and BIOC13H3] or CHMB62H3] and CHMB31H3
Exclusion: CHM333H, CHM437H
Recommended Preparation: CHMC31Y3
Breadth Requirements: Natural Sciences
Note: Students are cautioned that CHMD71H3 is not offered in the same academic year as CHMD69H3.

CHMD71H3 - Pharmaceutical Chemistry

The course focuses on the important concepts in the design and synthesis of drugs. The course may include the principles of pharmacology, drug metabolism and toxicology. Strategies for generating valuable active compounds and structure/activity relationships involved in selective transformations of available building blocks into diversely functionalized derivatives will be discussed. The course provides an overview of reactions used at different stages of the drug development process, using representative examples from the literature and case studies of drugs where applicable.

Prerequisite: [CHMC41H3 or CHMC42H3] and CHMC47H3
Exclusion: CHM440H1, CHM444H5
Recommended Preparation: [BIOC12H3 and BIOC13H3] or CHMB62H3
Breadth Requirements: Natural Sciences
Note: Students are cautioned that CHMD69H3 is not offered in the same academic year as CHMD71H3.

CHMD79H3 - Topics in Biological Chemistry

Advanced topics in biological chemistry will be covered at a modern research level. The exact topic will be announced in the Winter Session prior to the course being offered.

Prerequisite: Permission of the instructor. Normally recommended for individuals who have completed fifteen full credits, including at least two C-level Chemistry courses, and who are pursuing one of the Chemistry Programs.

CHMD89H3 - Introduction to Green Chemistry

The 'twelve principles' of green chemistry will be discussed in the context of developing new processes and reactions (or modifying old ones) to benefit society while minimizing their environmental impact. Examples will be taken from the recent literature as well as from industrial case studies.

Prerequisite: [CHMC41H3 or CHMC42H3 or CHMC47H3]
Recommended Preparation: CHMB31H3
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

CHMD90Y3 - Directed Research

Course Coordinators: Artur Izmaylov (416 208-2951) aizmaylov@utsc.utoronto.ca and Frank Wania (416 287-7225) frank.wania@utoronto.ca

This course involves participation in an original research project under the direction of a faculty supervisor. Approximately 260 hours of work are expected in CHMD90Y3. The topic will be selected in conference with the course coordinator who will provide project descriptions from potential faculty supervisors. Progress will be monitored during periodic consultations with the faculty supervisor as well as the submission of written reports. The final results of the project will be presented in a written thesis as well as an oral and/or poster presentation at the end of the term.
Please see the note below on registration in CHMD90Y3.

Prerequisite: Permission of the course coordinator.
Exclusion: CHMD91H3, CHMD92H3
Note: Students must apply to the course coordinator for admission into this course. Applications must be received by the end of August for enrolment in the fall/spring semester; for enrolment in the summer semester, applications must be received by the end of April. Applications will consist of: 1) A letter of intent indicating the student's wish to enrol in CHMD90Y3; 2) A list of relevant courses successfully completed as well as any relevant courses to be taken during the current session; 3) Submission of the preferred project form indicating the top four projects of interest to the student. This form is available from the course coordinator, along with the project descriptions. Generally, only students meeting the requirements below will be admitted to CHMD90Y3: 1) A Cumulative Grade Point Average of 2.5. Students who do not meet this requirement should consider enrolling in CHMD92H3 instead; 2) Completion of at least 15 full credits; 3) Completion of at least 1.0 full credits of C-level chemistry or biochemistry courses containing a lab component (i.e. CHMC16H3, CHMC31Y3, CHMC41H3, CHMC42H3, CHMC47H3, BIOC23H3). Once the course coordinator (or designate) has approved enrolment to CHMD90Y3, s/he will sign the course enrolment form for submission to the registrar. Note that the course coordinator (or designate) is the only one permitted to give "permission of instructor" on this form.

CHMD91H3 - Directed Research

Course Coordinators: Artur Izmaylov (416 208-2951) Email: aizmaylov@utsc.utoronto.ca and Frank Wania (416 287-7225) Email: frank.wania@utoronto.ca

This course involves participation in an original research project under the direction of a faculty supervisor. Approximately 130 hours of work are expected in CHMD91H3. The topic will be selected in conference with the course coordinator who will provide project descriptions from potential faculty supervisors. Progress will be monitored during periodic consultations with the faculty supervisor as well as the submission of written reports. The final results of the project will be presented in a written thesis as well as an oral and/or poster presentation at the end of the term.
Please see the note below on registration in CHMD91H3.

Prerequisite: Permission of the course coordinator.
Exclusion: CHMD90Y3, CHMD92H3
Note: Students must apply to the course coordinator for admission into this course. Applications must be received by the end of August for enrolment in the fall/spring semester; for enrolment in the summer semester, applications must be received by the end of April. Applications will consist of: 1) A letter of intent indicating the student's wish to enroll in either CHMD90Y3 or CHMD91H3; 2) A list of relevant courses successfully completed as well as any relevant courses to be taken during the current session; 3) Submission of the preferred project form indicating the top four projects of interest to the student. This form is available from the course coordinator, along with the project descriptions.
Generally, only students meeting the following requirements will be admitted to CHMD91H3: 1) A Cumulative Grade Point Average of 2.5. Students who do not meet this requirement should consider enrolling in CHMD92H3 instead; 2) Completion of at least 15 full credits; 3) Completion of at least 1.0 full credits of C-level chemistry or biochemistry courses containing a lab component (i.e. CHMC16H3, CHMC31Y3, CHMC41H3, CHMC42H3, CHMC47H3, BIOC23H3).
Once the course coordinator (or designate) has approved enrolment to CHMD91H3, s/he will sign the course enrolment form for submission to the registrar. Note that the course coordinator (or designate) is the only one permitted to give "permission of instructor" on this form.

CHMD92H3 - Advanced Chemistry Laboratory Course

A lab course designed to introduce students to modern synthetic methods while performing multi-step syntheses. The course will consist of two, six hour lab days every week. Students will develop advanced practical synthetic and analytic skills by working with important reactions taken from different chemistry disciplines.

Prerequisite: One of CHMC41H3, CHMC42H3 or CHMC31Y3
Exclusion: CHMD90Y3, CHMD91H3
Enrolment Limits: 10
Breadth Requirements: Natural Sciences

City Studies

Faculty List

- A. Allahwala, B.A., M.A. (Freie Universität Berlin), Ph.D. (York), Associate Professor, Teaching Stream
- M. Buckley, B.Sc., M.E.S. (York), Ph.D. (Oxford), Assistant Professor
- S.C. Bunce, B.A. (Guelph), M.E.S. Pl. (York), Ph.D. (York), Assistant Professor
- S. Farber, B.A (McGill), M.S.A. (Ryerson), Ph.D. (McMaster), Assistant Professor
- J. Hannigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
- M.L. Kohn, B.A. (Williams College), M.A., Ph.D. (Cornell University), Professor
- J. Miron, B.A. (Queen's), M.A. (Penn.), M.Sc. (pl.), Ph.D. (Toronto), Professor
- D. Silver, B.A. (Berkeley), M.A., Ph.D. (Chicago), Assistant Professor
- A. Sorensen, B.F.A. (Nova Scotia College of Art and Design), M.Sc., Ph.D. (London), Professor

For curriculum inquiries please contact the CIT Program Advisor. Email: cit-advisor@utsc.utoronto.ca

The Department of Human Geography offers pre-professional programs for students interested in career paths that may be city-related. Students acquire a combination of conceptual, methodological, and critical skills relevant in a variety of professional fields including city planning, real estate development, transportation, housing, community development, urban governance, and city management. The Specialist, Major and Minor Program in City Studies are multidisciplinary: they are designed to give students the opportunity to see how they might apply ideas about cities from the social sciences and kindred disciplines in their field of professional interest. The programs also offer preparation for students interested in pursuing graduate education in a field of study related to cities.

Guidelines for First-year course selection
Students intending to complete a program in City Studies should complete CITA01H3 and at least 1.0 credit from the courses listed in Program Requirement 1 of the Specialist Program in City Studies or Major Program in City Studies within their first 4.0 credits.

Guidelines for Major Program Completion
The City Studies curriculum has three areas of concentration: (1) City-Building, (2) Community Development and (3) City Governance.

Students are welcome to take courses in more than one area of concentration and are encouraged to take at least three of the City Studies core courses, CITA02H3 (required for all Specialist, Major and Minor students in City Studies), CITB01H3, CITB03H3, CITB04H3, or CITB08H3. These core courses cover foundational concepts of the program and are considered essential preparation for upper-level courses.

Areas of Concentration Table:

City Building	Community Development	City Governance
CITC03H3	CITC01H3	CITC12H3
CITC04H3	CITC02H3	CITC15H3
CITC14H3	CITC07H3	CITC16H3
CITC18H3	CITC08H3	CITC17H3

Notes:
1. It is Department policy that students without the prerequisites will be removed from the course. Students should carefully check the prerequisites required for particular B-and C-level courses.
2. Some upper-level courses (e.g. SOC and MGE) are part of limited enrolment programs, with first preference in these courses going to students enrolled in the associated programs.

Experiential Learning and Outreach

For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

City Studies Programs

SPECIALIST PROGRAM IN CITY STUDIES (ARTS)

The Specialist program in City Studies (BA) will provide students with the skills and knowledge they will need to pursue specialized training at the graduate level in fields like public policy and municipal governance, urban planning, community development, as well as other city-focused fields of studies. Students in the Specialist program will also have the opportunity to develop the in-depth theoretical and conceptual knowledge in applied urban studies, quantitative and qualitative research and GIS skills, practical skills such as project management, facilitation and community consultation, and communication skills needed to succeed in a wide variety of urban professions. Students are encouraged to discuss the selection and sequencing of courses with the Program Advisor or Associate Chair (City Studies).

Enrolment Requirements
Enrolment in the Specialist is limited. Students may apply to enter the program after they have completed at least 4.0 credits, including the courses listed under Requirement 1 of the program.

Admission is based on overall academic performance and grades in the courses in Requirement 1 of the program; students must achieve a minimum CGPA of 2.5. For students applying with more 8.0-10.0 credits, admission will be on the basis of CGPA in all City Studies (CIT) courses taken. Decisions regarding program admissions will be made only twice a year, in May and August, by the City Studies Supervisor of Studies, and will be based on student requests submitted to the Registrar through ROSI.

Program Requirements:
This program requires the completion of 12.0 credits as follows:

1. Introduction to Social Science Thought (1.0 credit from among the following):
ANTA01H3 Introduction to Anthropology: Becoming Human
ANTA02H3 Introduction to Anthropology: Culture, Society and Language
GGRA02H3 The Geography of Global Processes
GGRA03H3 Cities and Environments
[MGEA01H3 Introduction to Microeconomics or MGEA02H3 Introduction to Microeconomics: A Mathematical Approach]
[MGEA05H3 Introduction to Macroeconomics or MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach]
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II
SOCA03Y3 Introduction to Sociology

2. Foundations (0.5 credit):
CITA01H3/(CITB02H3) Foundations of City Studies

3. Core courses (1.5 credits as from the following):
CITB01H3 Canadian Cities and Planning
CITB03H3 Social Planning and Community Development
CITB04H3 City Politics
CITB08H3 Economy of Cities

4. Research Methods (2.0 credits):
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
STAB23H3 Introduction to Statistics for the Social Sciences (or equivalent)
and
1.0 credits from the following:
GGRB30H3 Fundamentals of GIS I
GGRB03H3 Writing Geography
GGRC32H3 Essential Spatial Analysis
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography
GGRC42H3 Making Sense of Data: Applied Multivariate Analysis

5. City Studies Applications (3.5 credits from among the following):
CITC01H3 Urban Communities and Neighbourhoods Case Study
CITC02H3 Learning in Community Service
CITC03H3 Real Estate and the City
CITC04H3 Current Municipal and Planning Policy and Practice in Toronto
CITC07H3 Urban Social Policy
CITC08H3 Cities and Community Development
CITC09H3 Introduction to Planning History: Toronto and Its Region
CITC12H3 City Structures and City Choices: Local Government, Management, and Policymaking
CITC14H3 Environmental Planning
CITC15H3 Taxing and Spending: Public Finance in Canadian Cities
CITC16H3 Planning and Governing the Metropolis
CITC17H3 Civic Engagement in Urban Politics
CITC18H3 Transportation Policy Analysis

6. Approaches to Cities (1.5 credits from among the following)*:
GGRB02H3 The Logic of Geographic Thought
GGRB05H3 Urban Geography
GGRB13H3 Social Geography

GGRC02H3 Population Geography
GGRC10H3 Urbanization and Development
GGRC11H3 Current Topics in Urban Geography
GGRC12H3 Transportation Geography
GGRC13H3 Urban Political Geography
GGRC27H3 Location and Spatial Development
GGRC33H3 The Toronto Region
GGRC40H3 Megacities and Global Urbanization
GGRC43H3 Social Geographies of Street Food
GGRC48H3 Geographies of Urban Poverty
POLB50Y3 Canadian Government and Politics
POLC53H3 Canadian Environmental Policy
PPGC66H3/(POLC66H3) Public Policy Making
PPGC67H3/(POLC67H3) Public Policy in Canada
SOCB44H3 Sociology of Cities and Urban Life
*__Note__: these courses may have prerequisites that are not included in this program

7. City Studies Workshop (1.0 credit):
CITD05H3 City Studies Workshop I
CITD06H3 City Studies Workshop II

8. Advanced Applications (1.0 credit):
CITD01H3 City Issues and Strategies
CITD10H3 Seminar in Selected Issues in City Studies
CITD12H3 Planning and Building Public Spaces in Toronto
CITD30H3 Supervised Research Project
GGRD14H3 Social Justice and the City

MAJOR PROGRAM IN CITY STUDIES (ARTS)

Program Requirements
This program requires students to complete a total of 7.0 credits as follows:

1. Introduction to Social Science Thought (1.0 credit from among the following):
ANTA01H3 Introduction to Anthropology: Becoming Human
ANTA02H3 Introduction to Anthropology: Culture, Society and Language
GGRA02H3 The Geography of Global Processes
GGRA03H3 Cities and Environments
[MGEA01H3 Introduction to Microeconomics *or* MGEA02H3 Introduction to Microeconomics: A Mathematical Approach]
[MGEA05H3 Introduction to Macroeconomics *or* MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach]
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II
SOCA03Y3 Introduction to Sociology

2. Foundations
CITA01H3/(CITB02H3) Foundations of City Studies

3. Core courses (1.0 credits from among the following):
CITB01H3 Canadian Cities and Planning

CITB03H3 Social Planning and Community Development
CITB04H3 City Politics
CITB08H3 Economy of Cities

4. Methods (1.0 credit as follows):
STAB23H3 Introduction to Statistics for the Social Sciences
and
0.5 credit from among the following:
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
GGRB30H3 Fundamentals of GIS I
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography
GGRC42H3 Making Sense of Data: Applied Multivariate Analysis

5. City Studies Applications (at least 2.0 credits from among the following):
CITC01H3 Urban Communities and Neighbourhoods Case Study: East Scarborough
CITC02H3 Learning In Community Service
CITC03H3 Real Estate and the City
CITC04H3 Current Municipal and Planning Policy and Practice in Toronto
CITC07H3 Urban Social Policy
CITC08H3 Cities and Community Development
CITC09H3 Introduction to Planning History: Toronto and Its Region
CITC10H3 Selected Issues in City Studies
CITC12H3 City Structures and City Choices: Local Government, Management, and Policy Making
CITC14H3 Environmental Planning
CITC15H3 Taxing and Spending: Public Finance in Canadian Cities
CITC16H3 Planning and Governing the Metropolis
CITC17H3 Civic Engagement in Municipal Politics
CITC18H3 Urban Transportation Policy Analysis
CITD01H3 City Issues and Strategies
CITD05H3 City Studies Workshop I
CITD06H3 City Studies Workshop II
CITD10H3 Seminar in Selected Issues in City Studies
CITD12H3 Planning and Building Public Spaces in Toronto
CITD30H3 Supervised Research Project

6. Approaches to Cities (at least 1.5 credits from among the following):
ANTC18H3 Urban Anthropology
[EESA05H3 Environmental Hazards *or* EESA06H3 Introduction to Planet Earth]
EESD20H3 Geological Evolution and Environmental History of North America
GGRB02H3 The Logic of Geographic Thought
GGRB05H3 Urban Geography
GGRB13H3 Social Geography
GGRB28H3 Geographies of Disease
GGRC02H3 Population Geography
GGRC10H3 Urbanization and Development
GGRC11H3 Current Topics in Urban Geography
GGRC12H3 Transportation Geography
GGRC13H3 Urban Political Geography
GGRC27H3 Location and Spatial Development
GGRC33H3 The Toronto Region
GGRC40H3 Megacities and Global Urbanization
GGRC43H3 Social Geographies of Street Food

GGRC48H3 Geographies of Urban Poverty
GGRD09H3 Feminist Geographies
GGRD14H3 Social Justice and the City
HISC58H3 Delhi and London: Imperial Cities, Mobile People
POLB50Y3 Canadian Government and Politics
POLC53H3 Canadian Environmental Policy
PPGC66H3/(POLC66H3) Public Policy Making
PPGC67H3/(POLC67H3) Public Policy in Canada
SOCB44H3 Sociology of Cities and Urban Life
SOCC26H3 Sociology of Urban Cultural Policies
SOCC27H3 Sociology of Suburbs and Suburbanization
WSTB12H3 Women, Violence and Resistance
WSTB20H3/(WSTC20H3) Women, the Environment, and Change
WSTC14H3 Women, Community, and Policy Change

MAJOR (CO-OPERATIVE) PROGRAM IN CITY STUDIES (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in City Studies is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to City Studies upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in City Studies.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in City Studies and have completed at least 10.0 credits.

In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN CITY STUDIES (ARTS)

Students taking the Minor Program in City Studies should consider selecting most of their Applications program requirements from one area of focus: City Building, Community Development, or City Governance.

Program Requirements
The program requires the completion of 4.0 credits as follows:

1. Foundations (0.5 credit):
CITA01H3/(CITB02H3) Foundations of City Studies

2. Core Courses (1.5 credits from the following):
GGRB05H3 Urban Geography
CITB01H3 Canadian Cities and Planning
CITB03H3 Social Planning and Community Development
CITB04H3 City Politics
CITB08H3 Economy of Cities

3. Applications (2.0 credits at the C- or D-level, from the following):
CITC01H3 Urban Communities and Neighbourhoods Case Study: East Scarborough
CITC03H3 Real Estate and the City
CITC04H3 Current Municipal and Planning Policy and Practice in Toronto
CITC07H3 Urban Social Policy
CITC08H3 Cities and Community Development
CITC10H3 Selected Issues in City Studies
CITC12H3 City Structures and City Choices: Local Government, Management, and Policy Making
CITC14H3 Environmental Planning
CITC15H3 Taxing and Spending: Public Finance in Canadian Cities
CITC16H3 Planning and Governing the Metropolis
CITC17H3 Civic Engagement in Urban Politics
CITC18H3 Urban Transportation Policy Analysis
CITD01H3 City Issues and Strategies
CITD10H3 Seminar in Selected Issues in City Studies
CITD12H3 Planning and Building Public Spaces in Toronto
GGRC10H3 Urbanization and Development
GGRC11H3 Current Topics in Urban Geography
GGRC12H3 Transportation Geography
GGRC13H3 Urban Political Geography
GGRC27H3 Location and Spatial Development
GGRC33H3 The Toronto Region
GGRC40H3 Megacities and Global Urbanization
GGRC43H3 Social Geographies of Street Food
GGRC48H3 Geographies of Urban Poverty
GGRC50H3 Geographies of Education
GGRD14H3 Social Justice and the City

City Studies Courses

CITA01H3 - Foundations of City Studies

A review of the major characteristics and interpretations of cities, urban processes and urban change as a foundation for the Program in City Studies. Ideas from disciplines including Anthropology, Economics, Geography, Planning, Political Science and Sociology, are examined as ways of understanding cities.

Exclusion: CITB02H3
Breadth Requirements: Social & Behavioural Sciences

CITB01H3 - Canadian Cities and Planning

After reviewing the history of urban and regional planning in Canada, this course considers alternative ideologies, models of public choice, the role of the planner, the instruments of planning, tools for the analysis of planning, and planning in the context of the space economy.

Prerequisite: Any 4.0 credits.
Exclusion: (GGRB06H3)
Breadth Requirements: Social & Behavioural Sciences

CITB03H3 - Social Planning and Community Development

This course provides an overview of the history, theory, and politics of community development and social planning as an important dimension of contemporary urban development and change.

Prerequisite: Any 4.0 credits.
Breadth Requirements: Social & Behavioural Sciences

CITB04H3 - City Politics

This course is the foundations course for the city governance concentration in the City Studies program, and provides an introduction to the study of urban politics with particular emphasis on different theoretical and methodological approaches to understanding urban decision-making, power, and conflict.

Prerequisite: Any 4.0 credits
Breadth Requirements: Social & Behavioural Sciences

CITB08H3 - Economy of Cities

An introduction to economic analysis of cities, topics include: theories of urban economic growth; the economics of land use, urban structure, and zoning; the economics of environments, transportation, and sustainability; public finance, cost-benefit analysis, the provision of municipal goods and services, and the new institutional economics.

Prerequisite: Any 4.0 credits.
Breadth Requirements: Social & Behavioural Sciences

CITC01H3 - Urban Communities and Neighbourhoods Case Study: East Scarborough

This course engages students in a case study of some of the issues facing urban communities and neighbourhoods today. Students will develop both community-based and academic research skills by conducting research projects in co-operation with local residents and businesses, non-profit organizations, and government actors and agencies.

Prerequisite: [At least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Political Science or Sociology]
Recommended Preparation: CITC08H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences
Note: Priority enrolment is given students registered in the City Studies programs, students from other programs may request admission through the Program Advisor at cit-advisor@utsc.utoronto.ca

CITC02H3 - Learning in Community Service

This is a service learning course based in Scarborough communities in which students learn about community issues first-hand through placements with community- based organizations. Student evaluation will be based on completion of in-class work, service-learning hours, and grading of student journals that: 1. Describe the service work, and 2. Reflect on the service work and relate it to lectures and required readings.

Prerequisite: At least 1.5 credits at the B-level in CIT courses
Recommended Preparation: CITC01H3 and CITC08H3
Enrolment Limits: 30
Note: Priority enrolment is given students registered in the City Studies programs, students from other programs may request admission through the Program Advisor at cit-advisor@utsc.utoronto.ca

CITC03H3 - Real Estate and the City

Operation of property markets; cities as markets in land and structures; stocks of property and flows of accommodation service; location of industry, offices and retailing within the city; rental and owner-occupied housing; depreciation and maintenance; cyclical behaviour in metropolitan property markets; impacts of local government; property taxation.

Prerequisite: At least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Economics for Management Studies or Management
Exclusion: (GGRB10H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC04H3 - Current Municipal and Planning Policy and Practice in Toronto

Constitutional authority, municipal corporations, official plans, zoning bylaws, land subdivision and consents, development control, deed restrictions and common interest developments, Ontario Municipal Board.

Prerequisite: At least 1.5 credits at the B-level in one of the following: City Studies or Human Geography or Political Science or Sociology
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC07H3 - Urban Social Policy

In recent years social policy has been rediscovered as a key component of urban governance. This course examines the last half-century of evolving approaches to social policy and urban inequality, with particular emphasis on the Canadian urban experience. Major issues examined are poverty, social exclusion, labour market changes, housing, immigration and settlement.

Prerequisite: At least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Political Science or Sociology
Exclusion: CITC10H3 if taken in the 2011 Winter session
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC08H3 - Cities and Community Development

An examination of community development as the practice of citizens and community organizations to empower individuals and groups to improve the social and economic wellbeing of their communities and neighbourhoods. The course will consider different approaches to community development and critically discuss their potential for positive urban social change.

Prerequisite: [At least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Political Science or Sociology]
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences
Note: Priority enrolment is given students registered in the City Studies programs, students from other programs may request admission through the Program Advisor at cit-advisor@utsc.utoronto.ca

CITC09H3 - Introduction to Planning History: Toronto and Its Region

An introduction to the study of the history of urban planning with particular emphasis on the investigation of the planning ideas, and the plans, that have shaped Toronto and its surrounding region through the twentieth century. The course will consider international developments in planning thought together with their application to Toronto and region.

Prerequisite: At least 1.5 credits at the B-level in ONE of the following course subject areas: CIT or GGR or POL or SOC
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC10H3 - Selected Issues in City Studies

Examination of one or more current issues in cities. The specific issues will vary depending on the instructor.

Prerequisite: At least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Political Science or Sociology
Breadth Requirements: Social & Behavioural Sciences

CITC12H3 - City Structures and City Choices: Local Government, Management, and Policymaking

This course examines the structure of local government, how local Government is managed, how policy decisions are made. Viewing Canadian cities in comparative perspective, topics include the organization and authority of the mayor, council, civic bureaucracy, and special-purpose bodies, and their roles in the making and implementation of public policies; ethical and conflict-of-interest dilemmas; collective bargaining; and provincial oversight of municipal affairs.

Prerequisite: At least 1.0 credit at the B-level in ONE of the following: City Studies or Human Geography or Economics for Management Studies or Management or Political Science or Sociology
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC14H3 - Environmental Planning

This course introduces students to questions of urban ecology and environmental planning, and examines how sustainability and environmental concerns can be integrated into urban planning processes and practices.

Prerequisite: At least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Environmental Studies or Political Science or Sociology
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC15H3 - Taxing and Spending: Public Finance in Canadian Cities

The course examines Canadian local public finance in comparative perspective and discusses the implications of municipal finance for urban public policy, planning, and the provision of municipal services. Topics include local government revenue sources and expenditures, the politics of municipal budgeting and intergovernmental fiscal relations, and how public finance influences urban form.

Prerequisite: At least 1.0 credit at the B-level in ONE of the following: City Studies or Human Geography or Economics for Management Studies or Management or Political Science or Sociology
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC16H3 - Planning and Governing the Metropolis

Most of the world's population now lives in large urban regions. How such metropolitan areas should be planned and governed has been debated for over a century. Using examples, this course surveys and critically evaluates leading historical and contemporary perspectives on metropolitan planning and governance, and highlights the institutional and political challenges to regional coordination and policy development.

Prerequisite: At least 1.0 credit at the B-level in ONE of the following: City Studies or Human Geography or Management or Political Science or Sociology
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC17H3 - Civic Engagement in Urban Politics

This course examines the engagement of citizen groups, neighbourhood associations, urban social movements, and other non-state actors in urban politics, planning, and governance. The course will discuss the contested and selective insertion of certain groups into city-regional decision-making processes and structures.

Prerequisite: At least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Political Science or Sociology
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITC18H3 - Urban Transportation Policy Analysis

Demand forecasting; methodology of policy analysis; impacts on land values, urban form and commuting; congestion; transit management; regulation and deregulation; environmental impacts and safety.

Prerequisite: [STAB22H3 or equivalent] and [at least 1.5 credits at the B-level in ONE of the following: City Studies or Human Geography or Economics for Management Studies or Management or Political Science]
Exclusion: GGR324H, (GGRC18H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

CITD01H3 - City Issues and Strategies

This course is designed as a culminating City Studies course in which participants are able to showcase the application of their research skills, and share their professional and disciplinary interests in a common case study. Lectures and guests will introduce conceptual frameworks, core questions and conflicts. Students will be expected to actively participate in discussions and debates, and produce shared research resources. Each student will prepare a substantial research paper as a final project.

Prerequisite: 15.0 credits and completion of the following requirements from either the Major or Major Co-operative programs in City Studies: (2) Core Courses and (4) Methods
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

CITD05H3 - City Studies Workshop I

City Studies Workshop I provides training in a range of career-oriented research, consulting, and professional skills. Through a series of 4-week modules, students will develop professional practice oriented skills, such as conducting public consultations, participating in design charrettes, making public presentations, writing policy briefing notes, conducting stakeholder interviews, working with community partner organizations, organizing and running public debates, and participant observation of council meetings and policy processes at Toronto City Hall.

Prerequisite: 15.0 credits, including completion of the following requirements of the Specialist and Major/Major Co-op programs in City Studies: 1. Introduction to Social Science Thought, 2. Core Courses, and 3. Methods
Exclusion: (CITC05H3)
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences
Note: This course is designed for students in Years 3 and 4 of their programs. Priority will be given to students enrolled in the Specialist and Major/Major Co-op programs in City Studies.

CITD06H3 - City Studies Workshop II

City Studies Workshop II provides training in a range of career-oriented research, consulting, and professional skills. Through a series of 4-week modules, students will develop professional practice oriented skills, such as conducting public consultations, participating in design charrettes, making public presentations, writing policy briefing notes, conducting stakeholder interviews, working with community partner organizations, organizing and running public debates, and participant observation of council meetings and policy processes at Toronto City Hall.

Prerequisite: 15.0 credits, including completion of the following requirements of the Specialist and Major/Major Co-op programs in City Studies: 1. Introduction to Social Science Thought, 2. Core Courses, and 3. Methods
Exclusion: (CITC06H3)
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences
Note: This course is designed for students in Years 3 and 4 of their program of study. Priority will be given to students enrolled in the Specialist and Major/Major Co-op programs in City Studies.

CITD10H3 - Seminar in Selected Issues in City Studies

Designed primarily for final-year City Studies Majors, this research seminar is devoted to the analysis and discussion of current debates and affairs in City Studies using a variety of theoretical and methodological approaches. Specific content will vary from year to year. Seminar format with active student participation.

Prerequisite: 15.0 credits, including completion of the following requirements of the Major/Major Co-op programs in City Studies: (1) Introduction to Social Science Thought, (2) Core Courses, and (4) Methods
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op programs in City Studies. Additional students will be admitted as space permits.

CITD12H3 - Planning and Building Public Spaces in Toronto

This course is designed to develop career-related skills such as policy-oriented research analysis, report writing, and presentation and networking skills through experiential learning approaches. The policy focus each year will be on a major current Toronto planning policy issue, from ‘Complete Streets’ to improvements to parks and public space infrastructure, to public transit-related investments. Students work closely in the course with planners and policymakers from the City of Toronto, policy advocates, and community organizers.

Prerequisite: 15.0 credits, including completion of the following requirements of the Major/Major Co-op programs in City Studies: (1) Introduction to Social Science Thought, (2) Core Courses, and (3) Methods
Exclusion: CITD10H3 (if taken in the 2018 Fall Session and 2020 Winter session)
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

CITD30H3 - Supervised Research Project

An independent studies course open only to students in the Major and Major Co-op programs in City Studies. An independent studies project will be carried out under the supervision of an individual faculty member.

Prerequisite: 15.0 credits, including completion of the following requirements of the Major/Major Co-op programs in City Studies: 1) Introduction to Social Science Thought, 2) Core Courses, 4) Methods; and a cumulative GPA of at least 2.5
Breadth Requirements: Social & Behavioural Sciences

Classical Studies

Faculty List

- K. Blouin, M.A., Ph.D. (Laval and Nice), Associate Professor

Undergraduate Advisor:: (416-287-7184) Email: classics-undergrad-advisor@utsc.utoronto.ca

Classical Studies is a pluridisciplinary field dedicated to the study of the Ancient Greek and Roman worlds. It involves disciplines such as history, literature, religion, languages and linguistics, art history, archaeology, and philosophy and pertains to the study of wide areas of Europe, North Africa and Asia over several millennia (ca. 2000 B.C.-700 A.D.).
The expression "classical" is commonly used to designate the areas and periods populated or dominated by the Greeks and Romans. Yet it was also a complex, heterogeneous, permeable, mixed and constantly evolving world in which the Greeks and the Romans have always been intertwined with other peoples and cultures. Classical Studies at UTSC offers students both a thorough examination of the main features of the Greek and Roman civilizations and a substantial introduction to the other peoples and cultures which were part of or interacted with it. In all courses, the ancient written sources are studied in translation.

Guidelines for first-year course selection
Students who intend to complete the Minor program in Classics should include CLAA04H3 and CLAA06H3 in their first-year course selection.
For updates and detailed information regarding Classical Studies please visit the Department of Historical and Cultural Studies website.

Experiential Learning and Outreach

For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Classical Studies Programs

MINOR PROGRAM IN CLASSICAL STUDIES (ARTS)

Undergraduate Advisor: 416-287-7184 Email: classics-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits, as follows:

1. Introduction
CLAA04H3 The Ancient Mediterranean World
Note: Students who have completed both (CLAA02H3) and (CLAA03H3) may substitute one of the courses for CLAA04H3.

2. History and Culture
CLAB05H3 History and Culture of the Greek World
CLAB06H3 History and Culture of the Roman World

3. Mythology and Religion
CLAA06H3 Ancient Mythology II: Greece and Rome
Note: Students who were enrolled at UTSC prior to the 2009 Summer Session may substitute one of (CLAA02H3) or (CLAA03H3) for CLAA06H3.

4. Literature (0.5 credit from the following courses)
CLAC11H3 Classical Literature I: Poetry
CLAC12H3 Classical Literature II: Prose

5. Electives (1.5 credits from the following courses, including at least 1.0 credit at the C or D-level; before choosing their electives, students need to take at least 1.0 credit at the A-level, 1.0 credit at the B-level, and 0.5 credit at the C-level):
Classical Studies
CLAA05H3 Ancient Mythology I: Mesopotamia and Egypt
(CLAB10H3) Greek and Latin for Scientists
CLAB20H3 The Classical World in Film
CLAC01H3 Selected Topics in Classical Literature
CLAC02H3 Selected Topics in Classical Civilization
CLAC05H3 Environment, Society and Economy in Ptolemaic and Roman Egypt
CLAC11H3 Classical Literature I: Poetry if not taken as a required course
CLAC12H3 Classical Literature II: Prose if not taken as a required course
CLAC22H3 Religions of the Ancient Mediterranean
CLAC24H3 Multiculturalism and Cultural Identities in the Greek and Roman Worlds
CLAC68H3/HISC68H3/ANTC58H3 Constructing the Other: Orientalism through Time and Place
CLAD05H3 Water Management in the Ancient Mediterranean World

Art History
(VPHB41H3) The Human Figure in Greek Art (8th-4th cent. B.C.)
(VPHB52H3) Ancient Art and Architecture (ca 900 B.C.-300 A.D.)
(VPHB76H3) Religion in the Arts: The Judeo-Christian Traditions
(VPHC46H3) Topics in Art of the Ancient World
VPHC53H3 The Silk Routes

English
ENGB30H3 Classical Myth and Literature
ENGC16H3 The Bible and Literature I
ENGC17H3 The Bible and Literature II
ENGC26H3 Drama: Tragedy
ENGC27H3 Drama: Comedy

Languages
(LGGA50H3) Introductory Latin I
(LGGA51H3) Introductory Latin II
(LGGA54H3) Introductory Sanskrit I
(LGGA55H3) Introductory Sanskrit II
(LGGB54H3) Intermediate Sanskrit I
(LGGB55H3) Intermediate Sanskrit II

Philosophy
PHLB16H3 Political Philosophy: Ancient Greece and the Middle Ages
PHLB31H3 Introduction to Ancient Philosophy
PHLC32H3 Topics in Ancient Philosophy: Aristotle

Religion
(RLGB01H3) The "Holy Book" in Judaism, Christianity and Islam
(RLGC01H3) The Five Books of Moses
(RLGC02H3) The Gospels
(RLGC03H3) Paul and the Invention of Christianity
(RLGC04H3) Hindu Epic
RLGC05H3 The Qu'ran in Interpretive and Historical Context

Anthropology
(ANTB04H3) Artifacts and Prehistory
(ANTB12H3) Introduction to World Prehistory: The Rise of Civilization

Classical Studies Courses

CLAA04H3 - The Ancient Mediterranean World

An introduction to the main features of the ancient civilizations of the Mediterranean world from the development of agriculture to the spread of Islam. Long term socio-economic and cultural continuities and ruptures will be underlined, while a certain attention will be dedicated to evidences and disciplinary issues. Same as HISA07H3

Exclusion: HISA07H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAA05H3 - Ancient Mythology I: Mesopotamia and Egypt

A study of Mesopotamian and Egyptian mythologies. Special attention will be dedicated to the sources through which these representational patterns are documented and to their influence on Mediterranean civilizations and arts.

Exclusion: CLAA05H3 may not be taken after or concurrently with NMC380Y
Breadth Requirements: History, Philosophy & Cultural Studies

CLAA06H3 - Ancient Mythology II: Greece and Rome

A study of Greek and Roman mythologies. Special attention will be dedicated to the sources through which these representational patterns are documented and to their influence on Mediterranean civilizations and arts.

Exclusion: CLA204H, (CLAA02H3), (CLAA03H3)
Recommended Preparation: CLAA05H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAB05H3 - History and Culture of the Greek World

A survey of the history and culture of the Greek world from the Minoan period to the Roman conquest of Egypt (ca 1500-30 BC). Special attention will be dedicated to the nature, variety and limits of the available evidences, to socio-cultural interactions as well as to historical processes of continuities and ruptures.
Same as HISB10H3

Exclusion: CLA230H, HISB10H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAB06H3 - History and Culture of the Roman World

A survey of the history and culture of the ancient Roman world, from the Etruscan period to the Justinian dynasty (ca 800 BC-600 AD). Special attention will be dedicated to the nature, variety and limits of the available evidences, to socio-cultural interactions as well as to historical processes of continuities and ruptures.
Same as HISB11H3

Exclusion: CLA231H, HISB11H3
Recommended Preparation: CLAB05H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAB20H3 - The Classical World in Film

The representation of the classical world and historical events in film. How the Greek and Roman world is reconstructed by filmmakers, their use of spectacle, costume and furnishings, and the influence of archaeology on their portrayals. Films will be studied critically for historical accuracy and faithfulness to classical sources.
Same as HISB12H3

Exclusion: HISB12H3, CLA388H
Recommended Preparation: CLAA05H3 or CLAA06H3 or (CLAA02H3) or (CLAA03H3)
Breadth Requirements: History, Philosophy & Cultural Studies

CLAC01H3 - Selected Topics in Classical Literature

A detailed study of an author or a genre in Classical Literature in Translation.
Topics will vary from session to session and will alternate between Greek and Roman Epic, Greek and Roman Tragedy and Greek and Roman Comedy.

Prerequisite: One full credit in Classics or in English or another literature
Exclusion: CLA300H
Breadth Requirements: Arts, Literature & Language

CLAC02H3 - Selected Topics in Classical Civilization

A detailed study of a theme in Classical Civilization.
Topics will vary from session to session and may be drawn from such areas as the archaeological history of the Roman world, Greek and Roman religion, ancient education or Roman law.

Prerequisite: One full credit in Classics or History
Breadth Requirements: History, Philosophy & Cultural Studies

CLAC05H3 - Environment, Society and Economy in Ptolemaic and Roman Egypt

This course provides a review of the environmental, social and economic features of Egypt from 332 BC to 642 AD.
Same as (IEEC52H3), HISC10H3.

Prerequisite: 2.0 credits in CLA or HIS courses, including 2 of the following [CLAA04H3/HISA07H3, CLAB05H3/HISB10H3, CLAB06H3/HISB11H3]
Exclusion: (IEEC52H3), HISC10H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAC11H3 - Classical Literature I: Poetry

An examination of the main genres, authors and works of ancient Greek and Latin poetry, with particular emphasis on epic, drama and lyrics. Attention will be dedicated to the study of how these works reflect the socio-cultural features of Classical Antiquity and influenced later literatures. Texts will be studied in translation.

Prerequisite: One full credit in Classics or English
Recommended Preparation: CLAA06H3
Breadth Requirements: Arts, Literature & Language

CLAC12H3 - Classical Literature II: Prose

An examination of the main genres, authors and works of ancient Greek and Latin prose. History, rhetoric, biography, letters and the novel will be studied. Attention will be dedicated to the study of how these works reflect the socio-cultural features of Classical Antiquity and influenced later literatures. Texts will be studied in translation.

Prerequisite: One full credit in Classics or English
Recommended Preparation: CLAA06H3 and CLAC11H3
Breadth Requirements: Arts, Literature & Language

CLAC22H3 - Religions of the Ancient Mediterranean

A comparative study of the Mesopotamian, Egyptian, Phoenician and Punic, Celtic, Palmyrene, Persian, Greco-Roman and Judeo-Christian religious beliefs and practices. Special attention will be dedicated to how they document the societies and cultures in which they flourished.

Prerequisite: One full credit in Classics or Religion
Exclusion: CLA366H, NMC380Y
Recommended Preparation: CLAA05H3 and CLAA06H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAC24H3 - Multiculturalism and Cultural Identities in the Greek and Roman Worlds

A critical examination of multiculturalism and cultural identities in the Greek and Roman worlds. Special attention will be dedicated to the evidences through which these issues are documented and to their fundamental influence on the formation and evolution of ancient Mediterranean societies and cultures.
Same as HISC11H3

Prerequisite: One full credit in Classics or History
Exclusion: HISC11H3
Recommended Preparation: CLAB05H3 and CLAB06H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAC67H3 - Early Islam: Perspectives on the Construction of a Historical Tradition

This course examines the history and historiography of the formative period of Islam and the life and legacy of Muḥammad, Islam's founder. Central themes explored include the Late Antique context of the Middle East, pre-Islamic Arabia and its religions, the Qur'ān and its textual history, the construction of biographical accounts of Muḥammad, debates about the historicity of reports from Muḥammad, and the evolving identity and historical conception of the early Muslim community.

Same as HISC67H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Exclusion: HISC67H3
Breadth Requirements: History, Philosophy & Cultural Studies

CLAC68H3 - Constructing the Other: Orientalism through Time and Place

This course reflects on the concept of *Orientalism* and how it informs the fields of Classical Studies and Anthropology. Topics to be discussed include the Orientalization of the past and the origin, role, and significance of ancient representations of the "Other" in contemporary discourses.
Same as ANTC58H3 and HISC68H3

Prerequisite: 1.0 credit from the following: [CLAA04H3/HISA07H3, CLAB05H4/HISB10H3, CLAB06H3/HISB11H3, ANTA02H3, ANTB19H3, ANTB20H3, HISB02H3, AFSB50H3/HISB50H3, AFSB51H3/HISB51H3, HISB53H3, HISB57H3, HISB58H3, HISB60H3, HISB61H3, HISB62H3, HISB93H3, HISB94H3]
Exclusion: ANTC58H3, HISC68H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

CLAD05H3 - Water Management in the Ancient Mediterranean World

This seminar type course addresses issues related to the relationships between ancient Mediterranean societies and their hydric environments in the Mediterranean from 5000 BC to 600 AD.
Same as HISD10H3

Prerequisite: Any 11 full credits including 2 full credits in Classical Studies or History.
Exclusion: HISD10H3
Recommended Preparation: CLAB05H3 and CLAB06H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

Combined Degree Programs

The University of Toronto Scarborough offers a number of Combined Degree Programs (CDPs). A CDP allows students to be registered in two degree programs (one undergraduate and one graduate) at the same time, creating one approved program combination. Students complete the requirements for both degrees in a manner that provides a benefit that would not be available to students registering in each degree program separately.

Combined Degree Programs

COMBINED DEGREE PROGRAMS, BACHELOR OF BUSINESS ADMINISTRATION / MASTER OF ACCOUNTING AND FINANCE

The Combined Degree Programs for UTSC Bachelor of Business Administration (BBA) with the Master of Accounting and Finance (MAccFin) offered by the Graduate Department of Management allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 2 of their undergraduate studies, and be considered, for admission to the MAccFin program. They are designed for students with no prior work experience who are interested in pursuing careers in account management, wealth management, consultancy, and entrepreneurship.

Contact Information:
Email: Maccfin@utsc.utoronto.ca

The Combined Degree Programs options are:

- Management and Accounting (Specialist), Bachelor of Business Administration/ Master of Accounting and Finance
- Management and Accounting (Specialist Co-op), Bachelor of Business Administration/ Master of Accounting and Finance

Application Process:

- Applicants must apply to the Bachelor of Business Administration (BBA) program, the MAccFin program, and the CDP.
- Qualified student in Year 2 of their BBA degree program apply to the MAccFin program and their chosen CDP through the SGS Online Admission Application system:
    - Students may apply after they have completed up to 10.0 credits; however, students who have completed more than 10.0 credits may not be considered for admission to the Program.
- Applicants must:
    - Complete a standardized application form with customized fields through the SGS Online Application System;
    - Provide official transcripts;
    - Provide at least two reference letters; and
    - Provide a resume.

- Applicants will be scored on each admission requirement and then ranked based on their overall score. Top ranked applicants will be invited for an interview.

Minimum Admission Requirements:
Admission to the program is extremely competitive, and all aspects of the application are considered. Meeting minimum grade requirements does not guarantee admission. To be considered for **conditional admission to the MAccFin program and the selected CDP**, applicants must meet the following admission requirements:

- Be admitted to the BBA degree and one of the Management and Accounting Specialist programs at UTSC.
- Meet the minimum admission requirements of the School of Graduate Studies and the MAccFin program.
- Be enrolled full-time and in good standing in the BBA program:
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Complete all of the requirements of the Management and Accounting Specialist programs, with the following modifications:
    - MGEC08H3 replaces "1.0 credit in C-level Economics courses" (see component 3 of the program requirements);
    - students are exempted from MGEB12H3 and MGAD70H3;
    - Students must complete MGFD10H3 (0.5 credit in Finance courses);
    - in the Summer terms of Year 3 of their undergraduate studies, students must complete 1.0 FCE in graduate courses as described below. The 1.0 FCE in graduate courses will be graded as graduate courses, as per the *University Assessment and Grading Practices Policy*, 2012 (section B.4.1.2). The 1.0 FCE in graduate courses will count towards both the BBA degree and the MAccFin program and degree:
        - MAF 2001H
        - MAF 2002H
    - Students must complete all of the following advanced accounting courses, which are necessary for CPA designation: MGAD20H3, MGAD40H3, MGAD45H3, MGAD50H3, MGAD65H3.

Program Requirements and Path to Completion:

- Year 4: BBA degree requirements
    - students must complete all BBA program requirements, with the modifications described above, and degree requirements;
    - students are expected to carrry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year; where necessary, exceptions will be made for students in Co-op programs.
- Session 1: MAccFin program and degree requirements, with the following modifications:
    - students who have successfully completed MAF 2001H as part of their BBA requirements, do not need to repeat it;
    - students who have successfully completed MAF 2002H as part of their BBA requirements, do not need to repeat it.
- Session 2-4: remaining MAccFin program and degree requirements.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENGINEERING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) and Master of Engineering (MEng) allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the Faculty of Engineering & Applied Chemistry MEng programs in either Chemical Engineering & Applied Chemistry or Civil Engineering.

Contact Information:
Mandy Meriano(416-208-2775)
Email: mmeriano@utsc.utoronto.ca

Combined Degree Programs options are:

- Environmental Biology (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering

Application Process:

- UTSC students in Year 3 of one the identified HBSc programs who are interested in one of the identified CDPs must contact Professor M. Meriano before the end of the Fall session.
- Qualified UTSC students will be able to apply to their selected CDP.
- UTSC students who are accepted to the CDP will receive a conditional offer to start the Master of Engineering (MEng) program upon completion of their HBSc program requirements.

Minimum Admission Requirements:

- Applicants must meet the admission requirements of the HBSc program, the School of Graduate Studies, and the MEng program.
- Applicants to the HBSc program must:
    - be enrolled full-time and in good standing;
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer).
- Applicants to the MEng program must:
    - maintain a B+ average (CGPA of 3.3) or higher in Year 3 and Year 4 of their HBSc program;
    - complete the requirements of their HBSc program;
    - be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBSc degree requirements:
    - students must complete all HBSc program requirements and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the CDP and may be offered conditional admission to the MEng program;
    - in Year 4, students who receive a conditional offer of admission to the CDP and MEng:
        - **must complete two prescribed undergraduate engineering half courses** (1.0 credit) as part of the HBSc degree requirements;
        - may complete up to 1.0 credit in graduate courses with the permission of either the Department of Chemical Engineering and Applied Chemistry or Department of Civil Engineering (depending on the selected CDP); these courses can be counted towards the completion of both the HBSc degree requirements and the MEng program and degree requirements.
    - by the end of Year 4, fulfill both the undergraduate program requirements and the undergraduate degree requirements.
- Year 5: Remaining MEng program and degree requirements:
    - conditions of admission are removed;
    - complete 5.0 credits in MEng courses; students who have completed up to 1.0 credit in MEng courses in Year 4 may subtract those courses from the total 5.0 credits required.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENVIRONMENTAL SCIENCE

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to

the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Biological Sciences

- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science

Department of Physical and Environmental Sciences

- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

Application Process:

- Applicants must apply to the Honours Bachelor of Science (HBSc) program, the MEnvSc program, and the CDP.
- Qualified students in Year 3 of their HBSc degree program apply to the MEnvSc program and their chosen CPD through the SGS Online Admission Application system:
    - students will select one of the three fields of study within the MEnvSc program at the time of application:
        - Climate Change Impacts and Adaptation
        - Conservation and Biodiversity, or
        - Terrestrial and Aquatic Systems

- those accepted will receive a conditional offer to start the MEnvSc program upon completion of their HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MEnvSc program and the selected CDP**, applicants must meet the following admission requirements:

- Be admitted to the HBSc degree and one of the above listed undergraduate programs at UTSC.
- Meet the minimum admission requirements of the School of Graduate Studies and the MEnvSc program.
- Be enrolled full-time and in good standing in the HBSc program:
  - have a B+ average (CGPA of 3.3) or higher in Year 2;
  - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Complete the following undergraduate courses as part of the HBSc degree requirements:
  - Students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
    - BIOC63H3 Conservation Biology (0.5 credit)
    - BIOD54H3 Applied Conservation Biology (0.5 credit)
  - Students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
    - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
    - EESD10Y3 Research Project in Environmental Science (1.0 credit)

To be given **full, unconditional admission to the MEnvSc program**, applicants must meet the following admission requirements:

- Maintain a B+ average (CGPA of 3.3) or higher in their final year of study in the HBSc program or over upper-level (C- and D-level) courses.
- Achieve at least a grade of B- (70%) in both of the graduate courses taken in Year 4 of undergraduate study; these courses must be chosen in consultation with the Graduate Program Supervisor:
  - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
  - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
  - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 4: HBSc degree requirements
  - students must complete all HBSc program requirements and degree requirements;
  - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year; where necessary, exceptions will be made for students in Co-op programs;
  - students who receive a conditional offer of admission to the CDP must complete the following undergraduate courses:

        - students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
            - BIOC63H3 Conservation Biology (0.5 credit)
            - BIOD54H3 Applied Conservation Biology (0.5 credit)
        - students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
            - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
            - EESD10Y3 Research Project in Environmental Science (1.0 credit)
    - students must complete 1.0 credit in graduate courses, chosen in consultation with the Graduate Program Supervisor, as follows:
        - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
        - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
        - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Optional registration in the Summer session prior to Year 5:
    - students complete one of the following opportunities:
        - EES 4001H Internship Training (0.5 credit)
        - EES 4003H Academic Training (0.5 credit)
- Year 5: Remaining MEnvSc program and degree requirements.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF SOCIAL WORK

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Social Work (MSW) offered by the Factor-Inwentash Faculty of Social Work allow exceptional students who are registered in the UTSC Specialist or Specialist Co-op programs in Mental Health Studies to apply during Year 3 of their studies, and be considered, for admission to the FIFSW Master's program in Social Work. These CDPs offer a rich intellectual pathway for exceptional undergraduate students by providing access to social work research before the completion of the undergraduate degree, and give students an opportunity to become equipped for evidence-informed social work practice, through a research course in Year 4 with a FIFSW co-supervisor.

Contact Information:
Department of Psychology
Email: psychology-undergraduate@utsc.utoronto.ca

Combined Degree Programs options are:

- Mental Health Studies (Specialist), Honours Bachelor of Science/ Master of Social Work
- Mental Health Studies (Specialist Co-op), Honours Bachelor of Science/ Master of Social Work

Application Process:

- Applicants must apply to the HBSc program, the MSW program, and the CDP.
- Qualified students in Year 3 of their HBSc program can apply to the MSW program; those accepted will receive a conditional offer to start the MSW program upon completion of their HBSc program and degree requirements.

Minimum Admission Requirements:

- Applicants must meet the admission requirements of the HBSc program, the School of Graduate Studies, and the MSW program.
- Applicants to the HBSc program must:
    - be enrolled full-time and in good standing;
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer).
- Applicants to the MSW program must:
    - maintain a B+ average (CGPA of 3.3) or higher in Year 3 and Year 4 of their HBSc program;
    - complete the requirements of their HBSc program;
    - be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBSc degree requirements:
    - students must complete all HBSc program requirements and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MSW program and the CDP and may be offered conditional admission;
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete 1.5 credits as follows:
        - PSYD98Y3 Thesis in Psychology, under the supervision of a UTSC Psychology faculty member in consultation with a FIFSW faculty member (1.0 credit);
        - PSYD37H3 The Social Context of Mental Health and Illness, which will be taught by a FIFSW faculty member (0.5 credit).
    - by the end of Year 4, fulfill the HBSc program requirements and HBSc degree requirements.
- Year 5 to 6: MSW program and degree requirements:
    - MSW Year 1:
        - conditions of admission are removed;
        - students must complete 4.0 credits (see the School of Graduate Studies Calendar: https://sgs.calendar.utoronto.ca/graduate-programs-at-a-glance)
        - students must complete the Year 1 practicum (SWK 4701H)
        - by the end of Year 1 of the MSW program, students must select one of the following fields of specialization: Children and Their Families, Gerontology, Health and Mental Health; Social Justice and Diversity, Social Service Administration
    - MSW Year 2:
        - students must complete 1.0 credits in elective courses;
        - students must complete the Year 2 practicum (SWK 4702Y);
        - students must complete additional courses in their chosen field of specialization (see the School of Graduate Studies Calendar: https://sgs.calendar.utoronto.ca/graduate-programs-at-a-glance)
    - MSW students in the Health and Mental Health field who completed the Specialist (Co-operative) program in Mental Health Studies (BSc) are exempt from SWK4604 (Social Work Practice in Mental Health Services) and will replace it with a graduate elective.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching

- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching

- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry	Science - Chemistry

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/Specialist Co-op in Environmental Chemistry	
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

Computer Science

Faculty List

- A. Anderson, B.Eng. (McGill), M.Sc., Ph.D. (Stanford), Assistant Professor
- A. Attarwala, B.Sc. (Waterloo), M.Sc. (Georgia Tech), M.ASc. (University of Toronto), M.ASc. (Waterloo), CLTA Assistant Professor, Teaching Stream
- A. Bretscher, B.Sc., M.Sc. (Queen's), Ph.D. (Toronto), Associate Professor, Teaching Stream
- N. Cheng, B.Sc. (Toronto), Associate Professor, Teaching Stream
- W.H. Enright, B.Sc. (U.B.C.), M.Sc., Ph.D. (Toronto), Professor Emeritus
- J. Estrada, B.Eng. (ITESM, Mex.), M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- M. Gabel, B.Sc., M.Sc., Ph.D. (Technion), CLTA Assistant Professor
- D.J. Fleet, B.Sc. (Queen's), M.Sc., Ph.D. (Toronto), Professor
- J. Foerster, B.Sc., M.Sc. (Cambridge), D.Phil. (Oxford), Assistant Professor
- V. Hadzilacos, B.S.E. (Princeton), Ph.D. (Harvard), Professor
- B. Harrington, Hon. B.Sc. (Toronto), M.Sc., D.Phil. (Oxford), Associate Professor, Teaching Stream
- G. Hirst, B.A., B.Sc. (Monash), M.Sc. (A.N.U., U.B.C.), Ph.D. (Brown), Professor
- N. Koudas, B.Sc. (Patras), M.Sc. (Maryland), Ph.D. (Toronto), Professor
- M. Molloy, B.Math, M.Math (Waterloo), Ph.D. (Carnegie Mellon), Professor
- R. Pancer, B.Sc., M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- G. Pekhimenko, B.Sc. (Taurida), M.Sc., (Toronto), Ph.D. (Carnegie Mellon), Assistant Professor
- A. Rosselet, B.Sc. (NCSU), M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream Emeritus
- T. Sans, B.Sc. (Paul Sabatier), M.Sc. (Supaero), Ph.D. (Telecom-Bretagne), Assistant Professor, Teaching Stream
- B. Schroeder, M.Sc. (Saarbrucken), Ph.D. (Carnegie Mellon), Associate Professor
- A. Tafliovich, Hon. B.Sc., M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- N. Vijaykumar, B.E. (PES), M.Sc., Ph.D. (Carnegie Mellon), Assistant Professor

Associate Chair: F. Estrada (416-287-7266) Email: francisco.estrada@utoronto.ca

Computer Science is the study of the use of computers to process information. The form of this information may vary widely, from the business person's records or the scientist's experimental results to the linguist's texts. One of the fundamental concepts in Computer Science is the algorithm - a list of instructions that specify the steps required to solve a problem. Computer Science is concerned with producing correct, efficient, and maintainable algorithms for a wide variety of applications. Closely related is the development of tools to foster these goals: programming languages for expressing algorithms; operating systems to manage the resources of a computer; and various mathematical and statistical techniques to study the correctness and efficiency of algorithms.

Theoretical computer science is concerned with the inherent difficulty of problems that can make them intractable by computers. Numerical analysis, data management systems, computer graphics, and artificial intelligence are concerned with the applications of computers to specific problem areas.

Limited Enrolment
Because of pressures of demand for places, it has been necessary to place enrolment limits on most CSC courses and on admission to the Specialist, Major, and Minor programs. Information on how to apply for admission to a program is given below.

Note on Admission to CSC Courses
CSC courses are open to all students who meet the pre-requisites. Non-CSC program students will be permitted to take CSC courses as required for their programs. Otherwise non-CSC program students who wish to take B-, C-, or D-level courses must meet additional cumulative grade point average (CGPA) requirements:

- A student who is not in a CSC program and does not have a CGPA of at least 3.2 may not take any B-level CSC course, with the exception of CSCB20H3.
- A student who is not in a CSC program and does not have a CGPA of at least 3.2 may not take any C- or D-level CSC course.
- When a B-, C-, or D-level CSC course approaches its capacity, CSC program students will be given preference for further enrollment over non-CSC program students.
- Students admitted to the Major or Specialist programs in Computer Science at any point after the first year will be subject to retroactive program tuition fees.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Computer Science Programs

SPECIALIST PROGRAM IN COMPUTER SCIENCE (SCIENCE)

Supervisor of Studies: R. Pancer (416-287-7679) *Email*: pancer@utsc.utoronto.ca

Program Objectives
This program provides a working knowledge of the foundations of computer science: modern computer software and hardware, theoretical aspects of computer science, and relevant areas of mathematics and statistics. It also imparts an appreciation of the discipline's transformative impact on science and society. The program prepares students for further study and for careers in the computing industry. It comprises four streams with different emphases:

The Comprehensive Stream provides a broad and balanced exposure to the discipline. It is the stream best-suited for students planning to pursue graduate study in computer science, but it is also suitable for other career paths.

The Software Engineering Stream places a greater emphasis on the engineering side of the discipline, including computer systems and core applications.

The Information Systems Stream has a similar focus as the Software Engineering Stream, but it provides additional exposure to certain aspects of business management. It is of special interest to students wishing to pursue careers in technical management but who have a deep interest in the technology.

The Entrepreneurship Stream includes a solid core of computer science and software engineering, while exposing students to the framework and methodologies that underlie the development of innovative technology ideas into viable commercial opportunities. Enrolment into the Entrepreneurship stream will be limited to highly qualified and motivated students, and preference will be given to students enrolled in the Specialist (Co-operative) program.

Note: the Health Informatics Stream has been suspended to new enrolments and will be fully closed effective with the 2020-21 academic year.

The structure of the program requirements allows one to easily switch streams until relatively late in the program. Consequently, these streams should not be viewed as rigidly separated channels feeding students to different career paths, but as a flexible structure that provides computer science students guidance in their course selection based on their broad (but possibly fluid) interests.

Enrolment Requirements

Enrolment in the Specialist in Computer Science (all streams) is limited. Students may apply to enter the program after completing 4.0 credits, and must have passed all of the A-level CSC and MAT courses required in the program (CSCA08H3, CSCA48H3, CSCA67H3, MATA22H3, MATA31H3, and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

Admission to the Entrepreneurship stream also requires the submission of a Supplementary Application Form (SAF) available on the Department of Computer and Mathematical Sciences website.

Students who are not admitted as above, and who are enrolled in the Minor in Computer Science, may apply after completing at least 7.5 credits, including the core A-level courses listed above as well as CSCB07H3, CSCB09H3, CSCB36H3 and one of MATB24H3 or STAB52H3. Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

* These courses have a CS subject POSt or minimum CGPA prerequisite.

To remain in the program, a student must maintain a CGPA of 2.0 or higher throughout the program.

Program Requirements
The program requirements comprise a core of 18 courses (9.0 credits), common to all streams and additional requirements which depend on the stream, for a total of 27 courses (13.5 credits) for the Comprehensive, Software Engineering, and Entrepreneurship streams, and 29 courses (14.5 credits) for the Information Systems stream.

Note: Many Computer Science courses are offered both at U of T Scarborough and at the St. George campus. When a course is offered at both campuses in a given session, U of T Scarborough students are expected to take that course at U of T Scarborough. The Department of Computer Science at the St. George campus cannot guarantee space for U of T Scarborough students in their courses, especially those offered at both campuses.

Core (9.0 credits)

1. Writing Requirement (0.5 credit)*
0.5 credit from the following: ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3,

ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB09H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), ACMA01H3, (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.
***Note:** It is recommended that this requirement be satisfied by the end of the second year.

2. A-level courses (3.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCA67H3 Discrete Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

3. B-level courses (3.5 credits)
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB36H3 Introduction to the Theory of Computation
CSCB58H3 Computer Organization
CSCB63H3 Design and Analysis of Data Structures
MATB24H3 Linear Algebra II
STAB52H3 Introduction to Probability

4. C-level courses (1.5 credits)
CSCC43H3 Introduction to Databases
CSCC69H3 Operating Systems
CSCC73H3 Algorithm Design and Analysis

5. D-level courses (0.5 credit)
CSCD03H3 Social Impact of Information Technology

A. Comprehensive Stream
This stream requires a total of 27 courses (13.5 credits). In addition to the core requirements 1-5 common to all streams, 9 other distinct courses (4.5 credits) must be chosen to satisfy all of the following requirements:

6. Additional required courses (2.5 credits)
CSCC24H3 Principles of Programming Languages
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCD37H3 Analysis of Numerical Algorithms for Computational Mathematics
MATB41H3 Techniques of the Calculus of Several Variables I

7. Electives from courses on computer systems and applications (1.0 credit)
Choose from:
CSCC01H3 Introduction to Software Engineering
CSCC09H3 Programming on the Web
CSCC10H3 Human-Computer Interaction
CSCC11H3 Introduction to Machine Learning and Data Mining
CSCC46H3 Social and Information Networks
CSCC85H3 Introduction to Embedded Systems
CSCD01H3 Engineering Large Software Systems

CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD43H3 Database System Technology
CSCD58H3 Computer Networks
CSCD70H3 Compiler Optimization
CSCD84H3 Artificial Intelligence
CSC320H Visual Computing
CSC321H Introduction to Neural Networks and Machine Learning
CSC401H Natural Language Computing
CSC469H Operating Systems Design and Implementation
CSC485H Computational Linguistics
CSC488H Compilers and Interpreters

8. Electives from courses related to the theory of computing (0.5 credit)
Choose from:
MATC09H3 Introduction to Mathematical Logic
MATC32H3 Graph Theory and Algorithms for its Applications
MATC44H3 Introduction to Combinatorics
MATD16H3 Coding Theory and Cryptography
CSC438H Computability and Logic
CSC448H Formal Languages and Automata
CSC465H Formal Methods in Software Design

9. CSC, MAT, or STA elective (0.5 credit)
Any C- or D-level CSC, MAT, or STA course, excluding MATC82H3, MATC90H3, STAC32H3, STAC53H3 and STAD29H3.

B. Software Engineering Stream
This stream requires a total of 27 courses (13.5 credits). In addition to the core requirements 1-5 common to all streams, 9 other distinct courses (4.5 credits) must be chosen to satisfy all of the following requirements:

6. Additional required courses (3.0 credits)
CSCC01H3 Introduction to Software Engineering
CSCC24H3 Principles of Programming Languages
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCD01H3 Engineering Large Software Systems
MATB41H3 Techniques of the Calculus of Several Variables I

7. Electives from courses on computer systems and applications (1.5 credits)
Choose from:
CSCC09H3 Programming on the Web
CSCC10H3 Human-Computer Interaction
CSCC11H3 Introduction to Machine Learning and Data Mining
CSCC46H3 Social and Information Networks
CSCC85H3 Introduction to Embedded Systems
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD43H3 Database System Technology
CSCD58H3 Computer Networks
CSCD70H3 Compiler Optimization

CSCD84H3 Artificial Intelligence
CSC320H Visual Computing
CSC321H Introduction to Neural Networks and Machine Learning
CSC401H Natural Language Computing
CSC469H Operating Systems Design and Implementation
CSC485H Computational Linguistics
CSC488H Compilers and Interpreters

C. Information Systems Stream
This stream requires a total of 29 courses (14.5 credits). In addition to the core requirements 1-5 common to all streams, 11 other distinct courses (5.5 credits) must be chosen to satisfy all of the following requirements:

6. Required management courses (1.5 credits)
MGTA01H3 Introduction to Business
MGTA02H3 Managing the Business Organization
MGHB02H3 Managing People and Groups in Organizations

7. Additional required mathematics and computer science courses (3.0 credits)
CSCC01H3 Introduction to Software Engineering
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCD01H3 Engineering Large Software Systems
CSCD43H3 Database System Technology
MATB41H3 Techniques of the Calculus of Several Variables I

8. Electives from courses on computer systems and applications (1.0 credit)
Choose from:
CSCC09H3 Programming on the Web
CSCC10H3 Human-Computer Interaction
CSCC11H3 Introduction to Machine Learning and Data Mining
CSCC46H3 Social and Information Networks
CSCC85H3 Introduction to Embedded Systems
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD58H3 Computer Networks
CSCD70H3 Compiler Optimization
CSCD84H3 Artificial Intelligence
CSC320H Visual Computing
CSC321H Introduction to Neural Networks and Machine Learning
CSC401H Natural Language Computing
CSC469H Operating Systems Design and Implementation
CSC485H Computational Linguistics
CSC488H Compilers and Interpreters

D. Entrepreneurship Stream
This stream requires a total of 27 courses (13.5 credits). In addition to the core requirements 1-5 common to all streams, 9 other distinct courses (4.5 credits) must be chosen to satisfy all of the following requirements:

6. Additional required courses (3.0 credits)
CSCC01H3 Introduction to Software Engineering

CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCD01H3 Engineering Large Software Systems
CSCD54H3 Technology Innovation and Entrepreneurship
CSCD90H3 The Startup Sandbox

7. Electives from courses in computer science, mathematics, and statistics (1.5 credits)
Choose from:
CSCC09H3 Programming on the Web
CSCC10H3 Human-Computer Interaction
CSCC11H3 Introduction to Machine Learning and Data Mining
CSCC24H3 Principles of Programming Languages
CSCC46H3 Social and Information Networks
CSCC85H3 Introduction to Embedded Systems
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD43H3 Database System Technology
CSCD58H3 Computer Networks
CSCD70H3 Compiler Optimization
CSCD84H3 Artificial Intelligence
MATB41H3 Techniques of the Calculus of Several Variables I
STAB57H3 Introduction to Statistics
CSC320H Visual Computing
CSC321H Introduction to Neural Networks and Machine Learning
CSC401H Natural Language Computing
CSC469H Operating Systems Design and Implementation
CSC485H Computational Linguistics
CSC488H Compilers and Interpreters

SPECIALIST (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE (SCIENCE)

Supervisor of Studies: R. Pancer (416-287-7679) Email: richard.pancer@utoronto.ca
Co-op Contact: askcoop@utoronto.ca

This program provides a working knowledge of the foundations of computer science: modern computer software and hardware, theoretical aspects of computer science, and relevant areas of mathematics and statistics. It also imparts an appreciation of the discipline's transformative impact on science and society. The program prepares students for further study and for careers in the computing industry. It comprises four streams with different emphases:

The Comprehensive Stream provides a broad and balanced exposure to the discipline. It is the stream best-suited for students planning to pursue graduate study in computer science, but it is also suitable for other career paths.

The Software Engineering Stream places a greater emphasis on the engineering side of the discipline, including computer systems and core applications.

The Information Systems Stream has a similar focus as the Software Engineering Stream, but it provides additional exposure to certain aspects of business management. It is of special interest to

students wishing to pursue careers in technical management but who have a deep interest in the technology.

The Entrepreneurship Stream includes a solid core of computer science and software engineering, while exposing students to the framework and the methodologies that underlie the development of innovative technology ideas into viable commercial opportunities. Enrolment into the Entrepreneurship stream will be limited to highly qualified and motivated students, and preference will be given to students enrolled in the Specialist (Co-op) Program.

Note: the Health Informatics Stream has been suspended to new enrolments and will be fully closed effective with the 2020-21 academic year.

The structure of the program requirements allows one to easily switch streams until relatively late in the program. Consequently, these streams should not be viewed as rigidly separated channels feeding students to different career paths, but as a flexible structure that provides computer science students guidance in their course selection based on their broad (but possibly fluid) interests.

Enrolment Requirements

Enrolment in the program is limited.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must have passed all of the A-level CSC and MAT courses required in the program (CSCA08H3, CSCA48H3, CSCA67H3, MATA22H3, MATA31H3, and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

Admission to the Entrepreneurship Stream also requires the submission of a Supplementary Application Form available from the CMS website.

Students who are not admitted as above, and who are enrolled in the Minor in Computer Science, may apply after completing at least 7.5 credits, including the core A-level courses listed above as well as CSCB07H3, CSCB09H3, CSCB36H3 and one of MATB24H3 or STAB52H3. Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have a CGPA of at least 2.5 across all attempted courses.

*These courses have a CS subject POSt or minimum CGPA prerequisite.

Prospective Co-op Students:
Prospective students (i.e., those not yet admitted to a Co-op Degree POSt) must meet the enrolment requirements noted above and have a CGPA of at least 2.75 across all attempted courses.
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Computer Science.
To remain in the program, students must maintain a CGPA of 2.5 or higher throughout the program.
To complete the program, students must meet the work term and course requirements described below.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration, one of which can be during the summer. To be eligible for their first work term, students must be enrolled in the Specialist (Co-operative) Program in Computer Science and have completed at least 7.0 credits, including all first year required courses (CSCA08H3, CSCA48H3, CSCA67H3, MATA22H3, MATA31H3, MATA37H3).

In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN COMPUTER SCIENCE (SCIENCE)

Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca

Program Objectives
This program provides basic knowledge of the foundations of computer science: modern computer software and hardware, theoretical aspects of computer science, and relevant areas of mathematics and statistics. This program is intended to be combined with other programs, typically a major program in another discipline.

Enrolment Requirements

Enrolment in the Major in Computer Science is limited.

Students may apply to enter the program after completing 4.0 credits, and must have passed all of the A-level CSC and MAT courses required in the program (CSCA08H3, CSCA48H3, CSCA67H3, MATA22H3, MATA31H3, and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

Students who are not admitted as above, and who are enrolled in the Minor in Computer Science, may apply after completing at least 7.5 credits, including the core A-level courses listed above as well as CSCB07H3*, CSCB09H3*, CSCB36H3*, and at least one of MATB24H3 or STAB52H3. Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

*These courses have a CS subject POSt or minimum CGPA prerequisite.

Program Requirements
This program requires a total of 16 distinct courses (8.0 credits) satisfying all of the requirements listed below.

Note: Many Computer Science courses are offered both at U of T Scarborough and at the St. George campus. When a course is offered at both campuses in a given session, U of T Scarborough students are expected to take that course at U of T Scarborough. The Department of Computer Science at the St. George campus cannot guarantee space for U of T Scarborough students in their courses, especially those offered at both campuses.

1. A-level courses (3.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCA67H3 Discrete Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences

MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

2. B-level courses (3.0 credits)
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB36H3 Introduction to the Theory of Computation
CSCB58H3 Computer Organization
CSCB63H3 Design and Analysis of Data Structures
and
0.5 credit from the following:*
MATB24H3 Linear Algebra II
STAB52H3 Introduction to Probability
***Note**: In making this choice, students should consider the prerequisites of courses they plan to take to satisfy requirements 3-4.

3. C-level courses in numerical computation and theory of computing (1.0 credit)
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
and
0.5 credit from the following:
CSCC63H3 Computability and Computational Complexity
CSCC73H3 Algorithm Design and Analysis

4. CSC electives (1.0 credit)
1.0 credits in any C- or D-level CSC courses.

Writing Recommendation:
Students are urged to take a course from the following list of courses by the end of their second year: ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3, ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.

MAJOR (CO-OPERATIVE) PROGRAM IN COMPUTER SCIENCE (SCIENCE)

Supervisor of Studies: R. Pancer (416-287-7679) E-mail: richard.pancer@utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Computer Science is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Computer Science upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements

Enrolment in the Program is limited.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must have passed all of the A-level CSC and MAT courses required in the program (CSCA08H3, CSCA48H3, CSCA67H3, MATA22H3, MATA31H3, and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

Students who are not admitted as above, and who are enrolled in the Minor in Computer Science, may apply after completing at least 7.5 credits, including the core A-level courses listed above as well as CSCB07H3*, CSCB09H3*, CSCB36H3*, and at least one of MATB24H3 or STAB52H3. Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have a CGPA of at least 2.5 across all attempted courses.

* These courses have a CS subject POSt or minimum CGPA prerequisite.

Prospective Co-op Students:
Prospective students (i.e., those not yet admitted to a Co-op Degree POSt) must meet the enrolment requirements noted above and have a CGPA of at least 2.75 across all attempted courses.
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year.

Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
The course requirements of the Co-operative Major Program in Computer Science are identical to those of the Major Program in Computer Science.
To remain in the program, students must maintain a CGPA of 2.5 or higher throughout the program.
To complete the program, students must meet the work term and course requirements described below.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration, one of which can be during the summer. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Computer Science and have completed at least 7.0 credits, including all first year required courses (CSCA08H3, CSCA48H3, CSCA67H3, MATA22H3, MATA31H3, MATA37H3).

In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on

transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN COMPUTER SCIENCE (SCIENCE)

Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca

Program Objectives
This program provides a basic introduction to the tools and methodologies of computer science and equips students with the knowledge necessary to use the tools and methodologies as they relate to other subjects. The program is intended to complement programs in other disciplines.

Enrolment Requirements

Enrolment in the Minor in Computer Science is limited.

Students may apply to enter the program after completing 4.0 credits, and must have passed all of the A-level CSC and MAT courses required in the program [CSCA08H3, CSCA48H3, and (one of: CSCA67H3/MATA67H3, MATA22H3, MATA23H3, MATA30H3, MATA31H3, or MATA32H3)]. Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. Students in the Minor may take a maximum of 3 CSC elective courses (1.5 credits) at the C-level and D-level.

Program Requirements
This program may not be combined with any Major or Specialist Program in Computer Science, Mathematics or Statistics. It requires 4.0 credits as follows:

1. Introductory programming courses, 1.0 credit as follows:
CSCA08H3 Introduction to Computer Science I*
CSCA48H3 Introduction to Computer Science II
*__Note__: CSCA20H3 may be substituted for CSCA08H3 with permission of the Supervisor of Studies.

2. Basic mathematics courses, 0.5 credit from the following:
CSCA67H3/MATA67H3 Discrete Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
MATA31H3 Calculus I for Mathematical Sciences
MATA32H3 Calculus for Management I

3. Intermediate programming, systems, and theory courses, 1.5 credits from the following:
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Programming
CSCB20H3 Introduction to Databases and Web Applications
CSCB36H3 Introduction to the Theory of Computation**
CSCB58H3 Computer Organization
CSCB63H3 Design and Analysis of Data Structures***
**__Note__: CSCB36H3 requires CSCA67H3
***__Note__: CSCB63H3 requires CSCB36H3

4. CSC electives, 1.0 credit as follows:
Any C- or D-level CSC courses*
*__Note__: Some C- or D-level courses have prerequisites that would have to be taken *in addition* to the 4 credits required for this program. Check the prerequisites carefully before selecting courses to satisfy this requirement.

Computer Science Courses

CSCA08H3 - Introduction to Computer Science I

Programming in an object-oriented language such as Python. Program structure: elementary data types, statements, control flow, functions, classes, objects, methods. Lists; searching, sorting and complexity. This course is intended for students having a serious interest in higher level computer science courses, or planning to complete a computer science program.

Prerequisite: Grade 12 Calculus and Vectors and one other Grade 12 mathematics course.
Exclusion: CSCA20H3, CSC108H, CSC120H. CSCA08H3 may not be taken after or concurrently with CSCA48H3.
Breadth Requirements: Quantitative Reasoning
Note: This course does not require any prior exposure to computer programming.

CSCA20H3 - Introduction to Programming

An introduction to computer programming, with an emphasis on gaining practical skills. Introduction to programming, software tools, database manipulation. This course is appropriate for students with an interest in programming and computers who do not plan to pursue a Computer Science program.

Exclusion: CSCA08H3, CSC108H, CSC120H
Breadth Requirements: Quantitative Reasoning
Note: This course does not require any prior exposure to computer programming.

CSCA48H3 - Introduction to Computer Science II

Abstract data types and data structures for implementing them. Linked data structures. Object Oriented Programming. Encapsulation and information-hiding. Testing. Specifications. Analyzing the efficiency of programs. Recursion.

Prerequisite: CSCA08H3
Exclusion: CSC148H
Breadth Requirements: Quantitative Reasoning

CSCA67H3 - Discrete Mathematics

Introduction to discrete mathematics: Elementary combinatorics; discrete probability including conditional probability and independence; graph theory including trees, planar graphs, searches and traversals, colouring. The course emphasizes topics of relevance to computer science, and exercises problem-solving skills and proof techniques such as well ordering, induction, contradiction, and counterexample.
Same as MATA67H3

Prerequisite: Grade 12 Calculus and Vectors and one other Grade 12 mathematics course
Exclusion: MATA67H3, (CSCA65H3), CSC165H, CSC240H, MAT102H
Recommended Preparation: CSCA08H3 or CSCA20H3
Breadth Requirements: Quantitative Reasoning

CSCB07H3 - Software Design

An introduction to software design and development concepts, methods, and tools, using a statically-typed object-oriented language such as Java. Topics from: version control, build management, unit testing, refactoring, object-oriented design and development, design patterns and advanced IDE usage.

Prerequisite: CSCA48H3 and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: CSC207H
Breadth Requirements: Quantitative Reasoning

CSCB09H3 - Software Tools and Systems Programming

Software techniques in a Unix-style environment, using scripting languages and a machine-oriented programming language (typically C). What goes on in the system when programs are executed. Core topics: creating and using software tools, pipes and filters, file processing, shell programming, processes, system calls, signals, basic network programming.

Prerequisite: CSCA48H3 and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: CSC209H
Breadth Requirements: Quantitative Reasoning

CSCB20H3 - Introduction to Databases and Web Applications

A practical introduction to databases and Web app development. Databases: terminology and applications; creating, querying and updating databases; the entity-relationship model for database design. Web documents and applications: static and interactive documents; Web servers and dynamic server-generated content; Web application development and interface with databases.

Prerequisite: Some experience with programming in an imperative language such as Python, Java or C.
Exclusion: This course may not be taken after - or concurrently with - any C- or D-level CSC course.
Recommended Preparation: CSCA08H3 or CSCA20H3
Breadth Requirements: Quantitative Reasoning

CSCB36H3 - Introduction to the Theory of Computation

Mathematical induction with emphasis on applications relevant to computer science. Aspects of mathematical logic, correctness proofs for iterative and recursive algorithms, solutions of linear and divide-and-conquer recurrences, introduction to automata and formal languages.

Prerequisite: CSCA48H3 and [(CSCA65H3) or CSCA67H3] and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: CSC236H, CSC240H
Breadth Requirements: Quantitative Reasoning

CSCB58H3 - Computer Organization

Principles of the design and operation of digital computers. Binary data representation and manipulation, Boolean logic, components of computer systems, memory technology, peripherals, structure of a CPU, assembly languages, instruction execution, and addressing techniques. There are a number of laboratory periods in which students conduct experiments with digital logic circuits.

Prerequisite: [CSCA48H3 or PSCB57H3] and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: CSC258H
Breadth Requirements: Quantitative Reasoning

CSCB63H3 - Design and Analysis of Data Structures

Design, analysis, implementation and comparison of efficient data structures for common abstract data types. Priority queues: heaps and mergeable heaps. Dictionaries: balanced binary search trees, B-trees, hashing. Amortization: data structures for managing dynamic tables and disjoint sets. Data structures for representing graphs. Graph searches.

Prerequisite: CSCB36H3 and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: CSC263H, CSC265H
Breadth Requirements: Quantitative Reasoning

CSCC01H3 - Introduction to Software Engineering

Introduction to software development methodologies with an emphasis on agile development methods appropriate for rapidly-moving projects. Basic software development infrastructure; requirements elicitation and tracking; prototyping; basic project management; basic UML; introduction to software architecture; design patterns; testing.

Prerequisite: CSCB07H3, CSCB09H3, and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: CSC301H, (CSCC40H3), (CSCD08H3)
Breadth Requirements: Quantitative Reasoning

CSCC09H3 - Programming on the Web

An introduction to software development on the web. Concepts underlying the development of programs that operate on the web. Operational concepts of the internet and the web, static and dynamic client content, dynamically served content, n-tiered architectures, web development processes and security on the web.

Prerequisite: CSCB09H3 and CSCC43H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC309H
Breadth Requirements: Quantitative Reasoning

CSCC10H3 - Human-Computer Interaction

The course will provide an introduction to the field of Human-Computer Interaction (HCI) with emphasis on guidelines, principles, methodologies, and tools and techniques for analyzing, designing and evaluating user interfaces. Subsequent topics include usability assessment of interactive systems, prototyping tools, information search and visualization, mobile devices, social media and social networking, and accessibility factors.

Prerequisite: CSCB07H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CCT380H, CSC318H
Breadth Requirements: Quantitative Reasoning

CSCC11H3 - Introduction to Machine Learning and Data Mining

An introduction to methods for automated learning of relationships on the basis of empirical data. Classification and regression using nearest neighbour methods, decision trees, linear and non-linear models, class-conditional models, neural networks, and Bayesian methods. Clustering algorithms and dimensionality reduction. Model selection. Problems of over-fitting and assessing accuracy. Problems with handling large databases.

Prerequisite: MATB24H3 and MATB41H3 and STAB52H3 and [CGPA of at least 3.5 or enrolment in a CSC Subject POSt or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement].
Exclusion: CSC411H, (CSCD11H3)
Recommended Preparation: CSCC37H3
Breadth Requirements: Quantitative Reasoning

CSCC24H3 - Principles of Programming Languages

Major topics in the design, definition, analysis, and implementation of modern programming languages. Study of programming paradigms: procedural (e.g., C, Java, Python), functional (e.g., Scheme, ML, Haskell) and logic programming (e.g., Prolog, Mercury).

Prerequisite: CSCB07H3 and CSCB09H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC324H
Breadth Requirements: Quantitative Reasoning

CSCC37H3 - Introduction to Numerical Algorithms for Computational Mathematics

An introduction to computational methods for solving problems in linear algebra, non-linear equations, approximation and integration. Floating-point arithmetic; numerical algorithms; application of numerical software packages.

Prerequisite: MATA22H3 and [MATA36H3 or MATA37H3] and [CGPA of at least 3.5 or enrolment in a CSC Subject POSt or enrolment in a non-CSC Subject POst for which this specific course is a program requirement]
Exclusion: (CSCC36H3), (CSCC50H3), (CSCC51H3), CSC336H, CSC350H, CSC351H, CSC338H
Breadth Requirements: Quantitative Reasoning

CSCC43H3 - Introduction to Databases

Introduction to database management systems. The relational data model. Relational algebra. Querying and updating databases: the SQL query language. Application programming with SQL. Integrity constraints, normal forms, and database design. Elements of database system technology: query processing, transaction management.

Prerequisite: CSCB09H3 and CSCB63H3 [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC343H
Breadth Requirements: Quantitative Reasoning

CSCC46H3 - Social and Information Networks

How networks underlie the social, technological, and natural worlds, with an emphasis on developing intuitions for broadly applicable concepts in network analysis. Topics include: introductions to graph theory, network concepts, and game theory; social networks; information networks; the aggregate behaviour of markets and crowds; network dynamics; information diffusion; popular concepts such as "six degrees of separation", the "friendship paradox", and the "wisdom of crowds".

Prerequisite: CSCB63H3 and STAB52H3 and [MATA22H3 or MATA23H3] and [a CGPA of 3.5 or enrolment in a CSC Subject POSt]
Breadth Requirements: Quantitative Reasoning

CSCC63H3 - Computability and Computational Complexity

Introduction to the theory of computability: Turing machines, Church's thesis, computable and non-computable functions, recursive and recursively enumerable sets, reducibility. Introduction to complexity theory: models of computation, P, NP, polynomial time reducibility, NP-completeness, further topics in complexity theory.
Note: Although the courses CSCC63H3 and CSCC73H3 may be taken in any order, it is recommended that CSCC73H3 be taken first.

Prerequisite: CSCB36H3 and CSCB63H3 and [CGPA of at least 3.5, or enrolment in a CSC Subject POSt, or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]]
Exclusion: CSC363H, CSC365H, CSC364H
Breadth Requirements: Quantitative Reasoning

CSCC69H3 - Operating Systems

Principles of operating systems. The operating system as a control program and as a resource allocator. The concept of a process and concurrency problem: synchronization, mutual exclusion, deadlock. Additional topics include memory management, file systems, process scheduling, threads, and protection.

Prerequisite: CSCB07H3 and CSCB09H3 and CSCB58H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC369H
Breadth Requirements: Quantitative Reasoning

CSCC73H3 - Algorithm Design and Analysis

Standard algorithm design techniques: divide-and-conquer, greedy strategies, dynamic programming, linear programming, randomization, and possibly others.

Prerequisite: CSCB63H3 and STAB52H3 and [CGPA of at least 3.5 or enrolment in a CSC Subject POSt or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: CSC373H, CSC375H, CSC364H
Breadth Requirements: Quantitative Reasoning

CSCC85H3 - Introduction to Embedded Systems

The course introduces the fundamental principles, problems, and techniques involved in the operation of mobile robots and other automated systems. Course topics include: components of automated systems, sensors and sensor management, signal acquisition and noise reduction, principles of robot localization, FSM-based A.I. for planning, fault-tolerance and building fault-tolerant systems, real-time operation and real-time operating systems; and computational considerations such as hardware limitations and code optimization. Ethical considerations in the implementation and deployment of automated systems are discussed. The concepts covered in the course are put in practice via projects developed on a Lego robotic platform.

Prerequisite: CSCB58H3 and CSCB09H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: ECE385H
Recommended Preparation: CSCB07H3
Breadth Requirements: Quantitative Reasoning

CSCD01H3 - Engineering Large Software Systems

An introduction to the theory and practice of large-scale software system design, development, and deployment. Project management; advanced UML; requirements engineering; verification and validation; software architecture; performance modeling and analysis; formal methods in software engineering.

Prerequisite: CSCC01H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC302H, (CSCD08H3)
Breadth Requirements: Quantitative Reasoning

CSCD03H3 - Social Impact of Information Technology

The trade-offs between benefits and risks to society of information systems, and related issues in ethics and public policy. Topics will include safety-critical software; invasion of privacy; computer-based crime; the social effects of an always-online life; and professional ethics in the software industry. There will be an emphasis on current events relating to these topics.

Prerequisite: 14.0 credits and enrolment in a Computer Science Subject POSt. Restricted to students in the Specialist/Specialist Co-op programs in Computer Science or in the Specialist/Specialist Co-op programs in Management and Information Technology
Exclusion: CSC300H
Breadth Requirements: Social & Behavioural Sciences

CSCD18H3 - Computer Graphics

The course will cover in detail the principles and algorithms used to generate high-quality, computer generated images for fields as diverse as scientific data visualization, modeling, computer aided design, human computer interaction, special effects, and video games. Topics covered include image formation, cameras and lenses, object models, object manipulation, transformations, illumination, appearance modeling, and advanced rendering via ray-tracing and path-tracing. Throughout the course, students will implement a working rendering engine in a suitable programming language.

Prerequisite: MATB24H3 and MATB41H3 and [CSCB09H3 or proficiency in C] and CSCC37H3 and [a CGPA of at least 3.5 or enrolment in a Computer Science Subject POSt]
Exclusion: CSC418H
Breadth Requirements: Quantitative Reasoning

CSCD27H3 - Computer and Network Security

Public and symmetric key algorithms and their application; key management and certification; authentication protocols; digital signatures and data integrity; secure network and application protocols; application, system and network attacks and defences; intrusion detection and prevention; social engineering attacks; risk assessment and management.

Prerequisite: CSCB09H3 and CSCB36H3 and CSCB58H3 and [CGPA of at least 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC427H
Recommended Preparation: CSCC69H3
Breadth Requirements: Quantitative Reasoning

CSCD37H3 - Analysis of Numerical Algorithms for Computational Mathematics

Most mathematical models of real systems cannot be solved analytically and the solution of these models must be approximated by numerical algorithms. The efficiency, accuracy and reliability of numerical algorithms for several classes of models will be considered. In particular, models involving least squares, non-linear equations, optimization, quadrature, and systems of ordinary differential equations will be studied.

Prerequisite: CSCC37H3 and MATB24H3 and MATB41H3 and [CGPA of at least 3.5 or enrolment in a CSC Subject POSt or enrolment in a non-CSC Subject POSt for which this specific course is a program requirement]
Exclusion: (CSCC50H3), (CSCC51H3), CSC350H, CSC351H
Breadth Requirements: Quantitative Reasoning

CSCD43H3 - Database System Technology

Implementation of database management systems. Storage management, indexing, query processing, concurrency control, transaction management. Database systems on parallel and distributed architectures. Modern database applications: data mining, data warehousing, OLAP, data on the web. Object-oriented and object-relational databases.

Prerequisite: CSCC43H3 and CSCC69H3 and CSCC73H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC443H
Breadth Requirements: Quantitative Reasoning

CSCD54H3 - Technology Innovation and Entrepreneurship

This course examines high-Tech innovation and entrepreneurship, principles of operation of successful high-tech enterprises, customer identification and validation, product development, business models, lean startup techniques, and financing of high-technology ventures. Students will work in teams to develop their own innovative product idea, and will produce a sound business plan to support their product.

Prerequisite: A minimum of 2.5 credits at the B-level or higher in CSC courses
Corequisite: CSCD90H3
Exclusion: CSC454H
Enrolment Limits: Restricted to students in the Entrepreneurship stream of the Specialist/Specialist Co-op programs in Computer Science
Breadth Requirements: Social & Behavioural Sciences

CSCD58H3 - Computer Networks

Computer communication network principles and practice. The OSI protocol-layer model; Internet application layer and naming; transport layer and congestion avoidance; network layer and routing; link layer with local area networks, connection-oriented protocols and error detection and recovery; multimedia networking with quality of service and multicasting. Principles in the context of the working-code model implemented in the Internet.

Prerequisite: CSCB58H3 and CSCB63H3 and STAB52H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Exclusion: CSC458H
Breadth Requirements: Quantitative Reasoning

CSCD70H3 - Compiler Optimization

The goal of this course is to examine the design and implementation of a compiler optimized for modern parallel architectures. Students will learn about common optimizations, intermediate representations (IRs), control-flow and dataflow analysis, dependence graphs, instruction scheduling, and register allocation. Advanced topics include static single assignment, memory hierarchy optimizations and parallelization, compiling for multicore machines, memory dependence analysis, automatic vectorization/thread extraction, and predicated/speculative execution.

Prerequisite: CSCB63H3 and CSCC69H3 and [CGPA 3.5 or enrolment in a CSC Subject POSt]
Breadth Requirements: Quantitative Reasoning

CSCD71H3 - Topics in Computer Science

A topic from computer science, selected by the instructor, will be covered.
The exact topic will typically change from year to year.

Prerequisite: Permission of the instructor and [CGPA 3.5 or enrolment in a CSC Subject POSt]. Normally intended for students who have completed at least 8 credits.

CSCD72H3 - Topics in the Theory of Computing

A topic from theoretical computer science, selected by the instructor, will be covered. The exact topic will typically change from year to year.

Prerequisite: Permission of the instructor and [CGPA 3.5 or enrolment in a CSC Subject POSt]. Normally intended for students who have completed at least 8 credits.

CSCD84H3 - Artificial Intelligence

A study of the theories and algorithms of Artificial Intelligence. Topics include a subset of: search, game playing, logical representations and reasoning, planning, natural language processing, reasoning and decision making with uncertainty, computational perception, robotics, and applications of Artificial Intelligence. Assignments provide practical experience of the core topics.

Prerequisite: STAB52H3 and [CGPA 3.5 or enrolment in a CSC subject POSt]
Exclusion: CSC484H, CSC384H
Breadth Requirements: Quantitative Reasoning

CSCD90H3 - The Startup Sandbox

In this capstone course, students will work in teams to develop a viable product prototype following the methodologies and techniques covered in CSCD54H3. Students will produce written reports, short videos pitching their idea, and a final presentation showcasing their proposed innovation, as it would be pitched to potential investors. The course instructor and TAs will provide close supervision and mentorship throughout the project.

Prerequisite: A minimum of 2.5 credits at the B-level or higher in CSC courses
Corequisite: CSCD54H3
Enrolment Limits: Restricted to students in the Entrepreneurship stream of the Specialist/Specialist Co-op programs in Computer Science
Breadth Requirements: Quantitative Reasoning

CSCD92H3 - Readings in Computer Science

Students will examine an area of interest through reading papers and texts. This course is offered by arrangement with a computer science faculty member. It may be taken in any session, and must be completed by the last day of classes in the session in which it is taken.

Prerequisite: Students must obtain consent from the Supervisor of Studies before registering for this course.
Breadth Requirements: Quantitative Reasoning

CSCD94H3 - Computer Science Project

A significant project in any area of computer science. The project may be undertaken individually or in small groups. This course is offered by arrangement with a computer science faculty member, at U of T Scarborough or the St. George campus. This course may be taken in any session and the project must be completed by the last day of classes in the session in which it is taken. Students must obtain consent from the Supervisor of Studies before registering for this course.

Prerequisite: [Three C-level CSC courses] and [permission of the Supervisor of Studies] and [CGPA 3.0 or enrolment in a CSC Subject POSt] Enrolment procedures: Project supervisor's note of agreement must be presented to the Supervisor of Studies, who must issue permission for registration.
Exclusion: CSC494H

CSCD95H3 - Computer Science Project

Same description as CSCD94H3. Normally a student may not take two project half-courses on closely related topics or with the same supervisor.
If an exception is made allowing a second project on a topic closely related to the topic of an earlier project, higher standards will be applied in judging it. We expect that a student with the experience of a first project completed will be able to perform almost at the level of a graduate student.

Prerequisite: CSCD94H3 Enrolment procedures: Project supervisor's note of agreement must be presented to the Supervisor of Studies, who must issue permission for registration.
Exclusion: CSC495H

Concurrent Teacher Education

The Concurrent Teacher Education Program (CTEP) is suspended to new enrolments. Students who are already enrolled in the Program should consult the 2013-14 *Calendar*.

Concurrent Teacher Education Courses

CTEB01H3 - Equity and Diversity in Education

Focuses on raising awareness and sensitivity to issues related to equity, diversity and inclusion facing teachers and students in diverse schools and cultural communities. It includes field experience that entails observation of, and participation in equity and diversity efforts in a culturally-rooted school and/or community organization.

Prerequisite: PSYB21H3 or [(SOCA01H3) and (SOCA02H3)]
Exclusion: CTE200H
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in the Concurrent Teacher Education program. This course includes 12-20 hour field placements for CTEP students.

CTEC01H3 - Communication and Conflict Resolution

This course will provide theoretical knowledge about small-group interactions and their application for interpersonal communication and conflict resolution. First, we will study the role of status characteristics, cross-cultural variation in communication, and the emergence of power as they relate to the etiology of conflict. How the same facts can be re-organized in conflict management and resolution will be the focus in the second half of the course. Students will work on case studies and write reports about them.

Prerequisite: CTEB01H3 or SOCB26H3
Exclusion: CTE250H
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Concurrent Teacher Education program.

Curatorial Studies

Faculty List

- Y. Gu, M.Phil., Ph.D. (London), Associate Professor
- E. Harney, M.A. (Harvard), M.A. (Washington), Ph.D. (London), Associate Professor
- A. Irving, B.F.A. (Nova Scotia College of Art and Design), M.F.A. (York), Associate Professor, Teaching Stream
- A. MacDonald, B.A. (York), AOCAD, Associate Professor, Teaching Stream
- E. Webster, B.A., M.A. (Toronto), Ph.D. (Case Western Reserve), Associate Professor, Teaching Stream

ACM Program Manager: M. Hussain Email: manaal.hussain@utoronto.ca

The Department of Arts, Culture and Media offers a Minor Program in Curatorial Studies. This program is a perfect supplement to students pursuing a Major Program in Art History and Visual Culture, Specialist Program in Arts Management, Major Program in Media, Journalism and Digital Cultures, and Specialist or Major Program in Studio Art.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Curatorial Studies Programs

MINOR PROGRAM IN CURATORIAL STUDIES (ARTS)

Undergraduate Advisor: Email: acm-ua@utsc.utoronto.ca

The Minor in Curatorial Studies will provide an introduction to students interested in understanding and creating exhibitions, interventions, and texts in diverse communities, within a globalized world. Students will work toward a creative cultural practice through the study of media, materials and techniques, research methodologies, cultural theory, training in connoisseurship, critical analysis of art and social relationships, and in the organization of exhibitions, interventions and on-line projects. Students will be familiarized with current trends in practice, theories, and criticism, and will study the artistic production of historical and diverse cultures of the modern and contemporary world. Emphasis will be placed on experiential education through studio visits, gallery visits, technical workshops, exhibitions, installations, and fieldwork. Practical experience and collaborative skills will be developed as critical components of the learning process in Curatorial Studies courses, according to the established professional and academic guidelines for Curatorial Studies Programs.

Enrolment Requirements
This program is restricted to students who are enrolled in the Major in Art History, Specialist in Arts Management, Major in Media Studies, and Specialist or Major in Studio Art. Students may apply to the Minor in Curatorial Studies after completing 2.0 credits, including 0.5 credit from the following: [ACMB01H3, MDSA01H3, VPAA10H3, VPHA46H3, VPSA62H3, VPSA63H3].

Program Requirements
The program requires completion of 4.0 credits as follows:

1. 0.5 credit from the following:
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
MDSA01H3 Introduction to Media Studies
VPAA10H3 Introduction to Arts and Media Management
VPHA46H3 Ways of Seeing: Introduction to Art Histories
VPSA62H3 Foundation Studies in Studio
VPSA63H3 But Why Is It Art?

2. 1.0 credit as follows:
CRTB01H3 Introduction to Curating Art
VPSB73H3 Curatorial Perspectives I

3. 1.0 credit as follows:
CRTC72H3/VPHC72H3 Art, the Museum, and the Gallery
VPSC51H3 Curatorial Perspectives II

4. 0.5 credit from the following:
CRTC80H3 Curator as Artist, Artist as Curator
MDSB62H3 Visual Culture and Communication
MDSC61H3 Alternative Media
MDSD01H3 Seminar: Topics in Media and Art
VPHB78H3 Our Town, Our Art: Local Collections I
VPHB79H3 Our Town, Our Art: Local Collections II
VPHC75H3 The Artist, Maker, Creator

5. 1.0 credit as follows:
CRTD43H3 Curating Contemporary Art
CRTD44H3 Curating Historical Art

Curatorial Studies Courses

CRTB01H3 - Introduction to Curating Art

An introduction to the theory, ethics and contexts of art museum/gallery curatorial practice. Emphasis on communication through exploring interpretations and considering ethical practice. Students will learn specialized knowledge, resources, references and methodologies and explore professional and academic responsibilities of art-based curatorial work.

Prerequisite: Any 2.0 credits at A-level
Exclusion: (VPHB72H3), FAH301H5, FAH310H5
Enrolment Limits: Restricted to students who have completed the A-level courses in the Major or Specialist programs in Art History, Arts Management, Studio Art, or Media Studies.
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Minor in Curatorial Studies. Additional students will be admitted as space permits.

CRTB02H3 - Exhibiting Art

A critical look at ways of exhibiting art, from a variety of international, historical and contemporary perspectives with emphasis on today's displays in public and private institutions, and on beyond-the-gallery installation, performance, and virtual art practices.

Prerequisite: VPHA46H3
Exclusion: (VPHB71H3), FAH310H
Breadth Requirements: Arts, Literature & Language

CRTC72H3 - Art, the Museum, and the Gallery

Art and the settings in which it is seen in cities today. Some mandatory classes to be held in Toronto museums and galleries, giving direct insight into current exhibition practices and their effects on viewer's experiences of art; students must be prepared to attend these classes. Same as VPHC72H3

Prerequisite: ACMB01H3 and CRTB01H3 and CRTB02H3
Exclusion: VPHC72H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

CRTC80H3 - Curator as Artist; Artist as Curator

Viewed from an artist’s perspective, this course considers the exhibition as medium, and curating as a creative act. By studying the history of exhibitions organized by artists and artist collectives, this course considers their influence on contemporary curatorial practice with a focus on historical and contemporary Canadian exhibitions.

Prerequisite: CRTB01H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in programs in Curatorial Studies, Art History and Visual Culture, Arts Management, Media Studies, and Studio Art.

CRTD43H3 - Curating Contemporary Art

Curatorial practice and the responsibilities of the curator, such as the intellectual and practical tasks of producing a contemporary art exhibition, researching Canadian contemporary art and artists, building a permanent collection, administrating a public art competition, and critical writing about works of visual art in their various contexts. Studio and/or gallery visits required.

Prerequisite: 11.0 credits including VPHB39H3, CRTB01H3 and CRTB02H3
Exclusion: (VPHD43H3)
Breadth Requirements: Arts, Literature & Language

CRTD44H3 - Curating Historical Art

Time and history bring different factors to our understanding and interpretation of artworks. Students will explore both intellectual and practical factors concerning curating historical art, from conservation, research, and handling issues to importance of provenance, collecting, and display, through workshops, critical writing and discussion, field trips, and guest speakers.

Prerequisite: 11.0 credits including VPHB39H3, CRTB01H3 and CRTB02H3
Exclusion: (VPHD44H3)
Breadth Requirements: Arts, Literature & Language

Diaspora and Transnational Studies

Program Advisor Email: dts-advisor@utsc.utoronto.ca

The Major and Minor Programs in Diaspora and Transnational Studies are suspended to new enrolments. Students who are already enrolled in these programs should consult the 2013-14 *Calendar*.

Diaspora And Transnational Studies Courses

DTSB01H3 - Introduction to Diaspora and Transnational Studies I

An interdisciplinary introduction to the study of diaspora, with particular attention to questions of history, globalization, cultural production and the creative imagination. Material will be drawn from Toronto as well as from diasporic communities in other times and places.

Exclusion: DTS200Y, DTS201H
Breadth Requirements: Social & Behavioural Sciences
Note: It is recommended that students take DTSB01H3 in their second year of study.

DTSB02H3 - Introduction to Diaspora and Transnational Studies II

A continuation of DTSB01H3. An interdisciplinary introduction to the study of diaspora, with particular attention to questions of history, globalization, cultural production and the creative imagination. Material will be drawn from Toronto as well as from diasporic communities in other times and places.

Prerequisite: It is recommended that DTSB01H3 and DTSB02H3 be taken in the same academic year.
Exclusion: DTS200Y, DTS202H
Breadth Requirements: Social & Behavioural Sciences

Double Degree Programs

The Double Degree programs create an accelerated pathway for students who would otherwise have to complete two separate Specialist programs. Students are required to complete a total of 25.0 credits, and can complete both undergraduate programs and degrees within five years, without compromising their learning experience.

1. The Department of Computer and Mathematical Sciences, in partnership with the Department of Management offers the following Double Degree programs:

- Double Degree: BBA, Specialist Program in Management and Finance/Honours BSc, Specialist Program in Statistics, Quantitative Finance Stream
- Double Degree: BBA, Specialist (Co-op) Program in Management and Finance/Honours BSc, Specialist (Co-op) Program in Statistics, Quantitative Finance Stream

2. The Department of English, in partnership with the Department of Psychology, offers the following Double Degree program:

- Double Degree: Honours BA, Specialist program in English/Honours BSc, Specialist program in Psychology

Double Degree Programs

DOUBLE DEGREE: HONOURS BA, SPECIALIST PROGRAM IN ENGLISH / HONOURS BSc, SPECIALIST PROGRAM IN PSYCHOLOGY

This Double Degree program creates an accelerated pathway for students who would otherwise have to complete two separate Specialist programs and two separate degrees. It will provide students with a thorough, interdisciplinary education in both literary studies and Psychology. The Double Degree program takes advantage of existing synergies to allow students to complete both undergradudate programs and degrees within five years, without compromising on the core requirements of either program.

Enrolment Requirements

Enrolment in the Double Degree is limited. Students may apply after completing a minimum of 4.0 credits including ENGA01H3, ENGA02H3, PSYA01H3 and PSYA02H3. A final grade of at least 75% is required in each of PSYA01H3 and PSYA02H3. Students should apply to the program before they have completed 7.5 credits; however, students who have completed between 7.5 and 10.0 credits may apply to the program on a case-by-case basis by petitioning the program supervisor. Students who have completed more than 10.0 credits may not apply to the program. Application for admission will be made to the Office of the Registrar through ACORN in March/April and June/July.

Program Requirements
This program requires the completion of 25.0 credits, including at least 7.0 credits at the C-level and at least 3.5 credits at the D-level.

Psychology Courses **(10.5 credits)**

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits):
PSYB70H3 Methods in Psychological Science
PSYC70H3 Advanced Research Methods Laboratory
and 0.5 credit from among the following:
- PSYC06H3 Psychophysiology Laboratory
- [PSYC71H3 or (PSYC11H3) Social Psychology Laboratory]
- [PSYC72H3 or (PSYC26H3) Developmental Psychology Laboratory]
- [PSYC74H3 or (PSYC05H3) Human Movement Laboratory]
- [PSYC75H3 or (PSYC58H3) Cognitive Psychology Laboratory]
- [PSYC76H3 or (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit):
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (4.5 credits):
Students are required to take 2.5 credits at the B-level or C-level from one of the two content groups listed below, and 2.0 credits from the other group:
(a) Social and Developmental (PSY courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (PSY courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit):
Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (PSY courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (PSY courses listed in the 50- and 60-series)

8. Additional 0.5 credit in Psychology at the C-level (0.5 credit)

English Courses **(10.0 credits)**
Of the 10.0 credits, at least 3.0 credits must be at the C-level and 1.5 credits at the D-level.

1. All of the following (2.5 credits):
ENGA01H3 What is Literature?
ENGA02H3 Critical Writing About Literature
ENGB27H3 Charting Literary History I
ENGB28H3 Charting Literary History II
ENGC15H3 Introduction to Literary Theory and Criticism

2. 1.5 additional credits from courses whose content is pre-1900 (1.5 credits):
*See the English Course List for pre-1900 courses

3. 0.5 credit in Canadian Literature (0.5 credits):
*See the English Course List for courses in Canadian Literature

4. 5.5 additional credits in English

Notes:
1.Students may count no more than one of the following courses towards the Specialist requirements:
- ENGB35H3 Children's Literature
- (ENGB36H3) Detective Fiction
- (ENGB41H3) Science Fiction
2. The following courses do not count towards any English programs: ENG100H, ENG185Y.

Additional Psychology/English Courses **(2.0 credits)**
Students must complete a further 2.0 credits. Courses selected to complete this component can be in either English or Psychology or a combination of the two.

1. 1.0 credit at the C- or D-level in PSY and/or ENG courses

2. Capstone Requirement (1.0 credit)
Students must choose one of the options listed below:
ENGD26Y3 Independent Studies in Creative Writing: Poetry
ENGD27Y3 Independent Studies in Creative Writing: Prose
ENGD28Y3 Independent Studies in Creative Writing: Special Topics
ENGD98Y3 Senior Essay and Capstone Seminar
PSYD98Y3 Thesis in Psychology

DOUBLE DEGREE: BBA, SPECIALIST PROGRAM IN MANAGEMENT AND FINANCE / HONOURS BSc, SPECIALIST PROGRAM IN STATISTICS, QUANTITATIVE FINANCE STREAM

Academic Directors:
S. Ahmed Email: mgmtss@utsc.utoronto.ca (BBA)
S. Damouras Email: sdamouras@utsc.utoronto.ca (BSc)

This Double Degree program combines the Specialist Program in Management and Finance and the Specialist Program in Statistics, Quantitative Finance stream. Students completing the Double Degree program will qualify to graduate with two-degree designations – the Bachelor of Business Administration (BBA) and the Honours Bachelor of Science (BSc), assuming all other degree criteria are met.

Enrolment Requirements

Enrolment in this Double Degree program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English, Grade 12 Advanced Functions, and Grade 12 Calculus & Vectors. Applicants must also submit a Supplementary Application Form.

Course Guidelines for Students Admitted to the Double Degree Program Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA22H3, MATA30H3, MATA36H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students already pursuing a BBA program and degree may apply to enter the Double Degree program. The application can be made before the end of the Winter semester and/or before the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request. Students considering switching to the Double Degree program should consult with the program supervisors as soon as possible.

The minimum Cumulative Grade Point Average (CGPA) for admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed at least 4.5 credits (none of which can be designated as CR/NCR), including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3, MATA22H3, MATA30H3, and MATA36H3. Students who have taken the sequence [MATA32H3 and MATA33H3] instead of [MATA30H3 and MATA36H3] can still apply to the Double Degree program if they are taking or plan to take MATA36H3 at the time of application and could receive admission conditional on their grade in MATA36H3 being above a threshold to be specified each year. Note that MATA36H3 will be treated as an Extra (EXT) course in this case.

Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be admitted to the Double Degree program. For those who apply with more than 4.5 credits, their CGPA at the time of application will be calculated with more weight assigned to the required courses listed under the 4.5 credits.

CGPA Requirement to Remain in the Double Degree (Specialist Programs)
In order to remain in the Double Degree, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.1 (but not below 2.0) will have the opportunity to move to either the non Co-op BBA Specialist Program in Management and Finance, or the non Co-op BSc Specialist Program in Statistics, Quantitative Finance stream. If they choose to stay in the Double Degree program and their CGPA falls below 2.0, they will be removed from the Double Degree program. Students removed from the program for this reason may request re-instatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Double Degree program requires the completion of 25.0 credits. 22.0 credits are core program requirements as listed below, and 3.0 further credits are required to complete degree requirements.

1. Communications requirement (0.5 credit)
MGTA35H3 Management Communications

2. Management requirements (5.5 credits)
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II

MGAB03H3 Introductory Management Accounting
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGHC02H3 Management Skills
MGMA01H3 Principles of Marketing
MGMB01H3 Marketing Management
MGOC10H3 Analysis for Decision-Making
MGOC20H3 Operations Management: A Mathematical Approach
MGTA05H3 Foundations of Business Management or [(MGTA01H3) and (MGTA02H3)]

3. Science requirements (9.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
STAB52H3 An Introduction to Probability
STAB57H3 An Introduction to Statistics
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis
STAD37H3 Multivariate Analysis
STAD57H3 Time Series Analysis

4. Economics requirements (2.0 credits)
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach

5. Finance requirements (3.0 credits)
MGFB10H3 Principles of Finance
MGFC10H3 Intermediate Finance
[MGFC30H3 Introduction to Derivatives Markets or STAB41H3 Financial Derivatives]
MGFD10H3 Investments
STAC70H3 Statistics and Finance I
STAD70H3 Statistics and Finance II

6. At least four courses (2.0 credits) from:
MGEC71H3 Money and Banking
MGFC20H3 Personal Financial Management
MGFC50H3 International Financial Management
MGFC60H3 Financial Statement Analysis & Security Valuation
MGFD15H3 Special Topics in Finance: Private Equity
MGFD30H3 Risk Management
MGFD40H3 Investor Psychology and Behavioural Finance

MGFD50H3 Mergers and Acquisitions: Theory and Practice
MGFD60H3 Financial Modeling and Trading Strategies
MGFD70H3 Advanced Financial Management

NOTE: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of the Calendar.

DOUBLE DEGREE: BBA, SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND FINANCE / HONOURS BSc, SPECIALIST (CO-OPERATIVE) PROGRAM IN STATISTICS, QUANTITATIVE FINANCE STREAM

Academic Directors:
S. Ahmed Email: mgmtss@utsc.utoronto.ca (BBA)
S. Damouras Email: sdamouras@utsc.utoronto.ca (BSc)

Program Director: C. Arsenault E-mail: mgmtcoop@utsc.utoronto.ca

The Double Degree program combines the Specialist (Co-operative) Program in Management and Finance and the Specialist (Co-operative) Program in Statistics, Quantitative Finance stream. Students completing the Double Degree program will qualify to graduate with two degree designations – the Bachelor of Business Administration (BAA) and the Honours Bachelor of Science (BSc), assuming all other degree criteria are met.

The Double Degree program is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as finance, insurance, data analytics, accounting, consulting, business intelligence, marketing, policy, strategic planning and entrepreneurship. The Double Degree program will equip students with a comprehensive understanding of financial markets, and develop the business and quantitative skills required to function in them.

The Double Degree program operates on a trimester schedule, featuring three terms (Fall, Winter and Summer) in each Calendar year. Students work or study in all three terms for five years, or until graduation requirements are met. It requires 11 four-month terms of study and 3 four-month work terms.

Enrolment Requirements

Enrolment in the Double Degree program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English, Grade 12 Advanced Functions, and Grade 12 Calculus & Vectors. Applicants must also submit a Supplementary Application Form.

Course Guidelines for Students Admitted to Double Degree Program Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA22H3, MATA30H3, MATA36H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students already pursuing a BBA program and degree may apply to enter this Double Degree program. The application can be made before the end of the Winter semester and/or before the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request. Students considering switching to the Double Degree program should consult with the program supervisors as soon as possible.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed at least 4.5 credits (none of which can be designated as CR/NCR), including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3 or MGTA36H3, MATA22H3, MATA30H3, and MATA36H3. Students who have taken the sequence [MATA32H3 and MATA33H3] instead of [MATA30H3 and MATA36H3] can still apply to the Double Degree Program if they are taking or plan to take MATA36H3 at the time of application and could receive admission conditional on their grade in MATA36H3 being above a threshold to be specified each year. Note that MATA36H3 will be treated as an Extra (EXT) course in this case.

Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be able to apply to the Double Degree Program. For those who apply with more than 4.5 credits, their CGPA at the time of application will be calculated with more weight assigned to the required courses listed under the 4.5 credits.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Double Degree Co-op Program
Students must maintain a CGPA of 2.5 or higher. Students whose CGPA falls below 2.5 will be placed on probation. Students on probation will be reinstated to the Double Degree program if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.5. Students who cannot get out of probation in two consecutive sessions, or whose CGPA falls below 2.3, will be removed from the Double Degree Co-op Program. Students removed from the Double Degree (Specialist Co-op Programs) can pursue the Double Degree (Specialist Programs), or one of its non Co-op constituent programs (i.e., the BBA Specialist Program in Management and Finance, or the BSc Specialist Program in Statistics, Quantitative Finance stream).

Program Requirements
The Double Degree program requires the completion of 25.0 credits. 22.0 credits are core program requirements as listed below, and 3.0 further credits are required to complete degree requirements.

1. Communications requirement (0.5 credit)
MGTA36H3 Management Communications for Co-op

2. Management requirements (5.5 credits)
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
[MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management

MGHC02H3 Management Skills
MGMA01H3 Principles of Marketing
MGMB01H3 Marketing Management
MGOC10H3 Analysis for Decision-Making
MGOC20H3 Operations Management: A Mathematical Approach
MGTA05H3 Foundations of Business Management or [(MGTA01H3) and (MGTA02H3)]

3. Science requirements (9.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
STAB52H3 An Introduction to Probability
STAB57H3 An Introduction to Statistics
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis
STAD37H3 Multivariate Analysis
STAD57H3 Time Series Analysis

4. Economics requirements (2.0 credits)
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach

5. Finance requirements (3.0 credits)
MGFB10H3 Principles of Finance
MGFC10H3 Intermediate Finance
[MGFC30H3 Introduction to Derivatives Markets or STAB41H3 Financial Derivatives]
MGFD10H3 Investments
STAC70H3 Statistics and Finance I
STAD70H3 Statistics and Finance II

6. At least four courses (2.0 credits) from:
MGEC71H3 Money and Banking
MGFC20H3 Personal Financial Management
MGFC50H3 International Financial Management
MGFC60H3 Financial Statement Analysis & Security Valuation
MGFD15H3 Special Topics in Finance: Private Equity
MGFD30H3 Risk Management
MGFD40H3 Investor Psychology and Behavioural Finance
MGFD50H3 Mergers and Acquisitions: Theory and Practice
MGFD60H3 Financial Modeling and Trading Strategies
MGFD70H3 Advanced Financial Management

NOTE: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of the Calendar.

Co-op Work Term Requirements

All Double Degree program Co-op students must take MGTA36H3 prior to commencement of their first work term. Students are advised to consult regularly with the Academic Supervisors, or the Program Director, if they have questions regarding course selection and scheduling. It is however the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer will be expected to complete a Co-op Work Term Preparation Course (WTPC) beginning in the third week of June, and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3 or MGTA36H3, MATA22H3, and [MATA32H3, and MATA33H3] or [MATA30H3 and MATA36H3].

b) The Management Co-op Work Term Preparation Course (WTPC): COPD07Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 of this *Calendar*.

Economics for Management Studies

Faculty List

- I. Au, B.A., M.A., Ph.D. (Simon Fraser), Professor, Teaching Stream
- M. Campolieti, B.Sc., M.A., Ph.D. (Toronto), Professor
- L. Cavenaile, M.A. (Liège), M.Sc. (Maastricht), Ph.D. (New York), Assistant Professor
- A. Chandra, B.A. (India), M.A., Ph.D. (Illinois), Associate Professor
- E. Dhuey, B.A. (Colorado), M.A., Ph.D. (California), Associate Professor
- A.M. Franco, B.A. (California), M.A., Ph.D. (Rochester), Associate Professor
- G. Frazer, B. Math. (Waterloo), B.Ed. (Western), M.A. (Toronto), M.Phil., Ph.D. (Yale), Associate Professor
- H. Krashinsky, B.A. (Queen's), M.A., Ph.D. (Princeton), Associate Professor
- M. Krashinsky, S.B. (M.I.T.), M.Phil., Ph.D. (Yale), Professor
- A. Mazaheri, B.A.(Imam Sadegh), M.A, Ph.D. (Toronto), Associate Professor, Teaching Stream
- J. Parkinson, Hon B.A. (Western), M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- P. Medina Quispe, B.A. (PUCP-Peru), M.A., Ph.D. (Duke), Assistant Professor

Chair: D. Zweig

Economics studies how consumers and producers interact in a market economy to provide goods and services. Economics also studies how this process grows and changes over time, and under what circumstances it may fail to function in an optimal fashion. Economic policies to remedy those failures are also examined.

In the Department of Management, the study of Economics is oriented primarily to the needs of students interested in management studies. Therefore, many of our examples will focus on the ways in which firms and consumers in market economies interact. However, students interested in the wide variety of problems considered by Economists will find those matters are also addressed in our courses.

Economics plays a significant role within the various programs leading to the B.B.A. degree. The curriculum provides an excellent background for careers in business, government, and the professions, and may be of considerable interest to students specializing in other disciplines as well. Students may focus their study of economics in the Specialist/Specialist (Co-op) Program in Economics for Management Studies as part of the B.B.A. or may either major or minor in Economics as part of the B.A. degree.

Students wishing to pursue a graduate program in Economics may require some additional courses such as advanced microeconomics, advanced macroeconomics, and others. Students should consult with the Academic Director in Economics at the University of Toronto Scarborough for advice on selecting appropriate courses for graduate studies.

Programs in Economics for Management Studies
Some students are directly admitted from high school, but generally, most students apply to the

program at the end of their first year. Later admission is also possible. Students should consult the detailed discussion below.

The following programs are offered:
1. The Specialist Program in Economics for Management Studies leads to a Bachelor of Business Administration (B.B.A.) and provides a specialization for students wishing for a substantial component of Economics in a Management degree. For full Program details, see the Management section of this Calendar.

2. The Specialist (Co-op) Program in Economics for Management Studies leads to a Bachelor of Business Administration (B.B.A.) and provides a specialization for students wishing for a substantial component of Economics in a Management degree. This Program includes Co-op work terms. For Program details, see the Management section of this Calendar.

3. The Major Program in Economics for Management Studies. Enrolment in this program is limited. This program is described below.
Note: Students may not combine a Major Program in Economics for Management Studies with any Specialist B.B.A. program offered by the Department of Management.

4. The Minor Program in Economics for Management Studies. Enrolment in this program is unlimited. However, students are cautioned that they will not have guaranteed admission to most of the B-level and C-level Economic courses, and will only be accommodated after the Specialist and Major Program students have been admitted. This program is described below.
Note: Students may not combine a Minor Program in Economics for Management Studies with any Specialist B.B.A. program offered by the Department of Management.

Courses in Economics for Management Studies
Students who are enrolled in Specialist or a Major program in the Department of Management will have guaranteed access to enough courses in Economics for Management Studies to complete their programs. To protect that access, program students must register early during the enrolment priority period. After the enrolment priority period ends other students are given access to Economics for Management Studies courses based on academic merit. Students not formally admitted to a Specialist or Major program in the Management Department will likely experience difficulty in gaining access to enough courses to complete an Economics for Management Studies program.

Enrolment in MGEB02H3, MGEB06H3, MGEB11H3, MGEB12H3, MGEC02H3, MGEC06H3, MGEC11H3, MGED11H3.
MGED02H3 and MGED06H3 will be strictly limited to students who either are (1) enrolled in Specialist or Major programs offered by the Department of Management, or (2) meet the academic merit criteria.

Courses From Other Disciplines That May Be Counted Towards the Major and Minor Programs in Economics for Management Studies
The following courses may be counted as B-level credits in the Major Program in Economics for Management Studies and the Minor Program in Economics for Management Studies.

CITC18H3 - see the City Studies section of the *Calendar*
GGRC27H3 - see the Geography section of the *Calendar*
IDSB01H3 - see the International Development Studies section of the *Calendar*
IDSC12H3 - see the International Development Studies section of the *Calendar*

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Economics For Management Studies Programs

MAJOR PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (ARTS)

Academic Director: Iris Au Email: ecoss@utsc.utoronto.ca

This Program is designed to give a coordinated exposure to the subject matter of Economics for Management Studies to students pursuing the four-year degree with more than a single area of concentration.

Enrolment Requirements
Enrolment in this Program is limited. Students must have completed a minimum of 4.0 credits, including MGEA02H3, MGEA06H3, and [MATA32H3 & MATA33H3] (or equivalents). Decisions are made by the Academic Director, on the basis of the Cumulative Grade Point Average (CGPA). Students may apply until they have completed up to 10.0 credits, and admission will be on the basis of all grades received. Students who have completed more than 10.0 credits will not be considered for admission to the Program.
Students are cautioned that the Mathematics requirement implies that Grade 12 Calculus is a requirement for entry into this program.

Note: Students who are enrolled in a B.B.A. program may not enroll in the Major Program in Economics for Management Studies.

Program Requirements
The Program consists of 6.0 credits in Economics for Management Studies, 1.0 credit in Mathematics and 1.0 credit in any courses offered by the Department of Language Studies, Department of Arts, Culture and Media, Department of English, Department of Historical and Cultural Studies, and the Department of Philosophy.

The Economics courses must include:
MGEA02H3 and MGEA06H3
MGEB02H3 and MGEB06H3
MGEB11H3 and MGEB12H3
MGEC02H3 and MGEC06H3
MGEC11H3
and
1.5 credits from Economics for Management Studies courses including 1.0 credit at the C-level [excluding MGEC91H3, MGEC92H3, and MGEC93H3].

Students must also complete [MATA32H3 & MATA33H3] or [MATA30H3/A31H3 & MATA35H3/A36H3/A37H3] and one full credit in any course offered by the Department of Language Studies; Department of Arts, Culture & Media; Department of Historical & Cultural Studies; Department of English; and the Department of Philosophy.

Note: Students who take MGEA01H3 and MGEA05H3 and then decide to apply for this program will be permitted to substitute MGEA01H3 and MGEA05H3 for [MGEA02H3 & MGEA06H3]. However, these students will be required to complete [MATA32H3 & MATA33H3] or [MATA30H3/A31H3 & MATA35H3/A36H3/A37H3], before registering in MGEB02H3, MGEB06H3, MGEB11H3, and MGEB12H3.

STUDENTS WHO ARE CONSIDERING COMBINING PROGRAMS BETWEEN ECONOMICS AND STATISTICS
For students who are intending to pursue a major in Economics with a major or minor in Statistics, we advise the following recommended sequence of required courses. If the sequence outlined below is not followed, it may result in the student taking exclusions and incurring an "EXTRA" credit. An "EXTRA" credit does NOT count towards the 20 credit degree requirement.

STAB52H3
STAB57H3
MGEB12H3
MGEC11H3*
STAC67H3
* MGEC11H3 may be taken concurrently with STAC67H3. However, if MGEC11H3) is taken after STAC67H3, it will count as an "EXTRA" course and no credit will be given for the degree requirements.

MINOR PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (ARTS)

Academic Director: Iris Au Email: ecoss@utsc.utoronto.ca

This program is designed to give exposure to the subject matter in some areas of Economics to students who combine the Minor with other programs in order to graduate (see the Degrees section of this *Calendar* for information). Students need not have completed Grade 12 Calculus in order to enter this program.

Enrolment in this Program is unlimited and does not require training in Calculus. However, students are cautioned that they are not guaranteed admission to most of the B-level, C-level, and D-level courses. Students in the Minor will be accommodated only after students in the Specialist and Major programs have been admitted to these courses; therefore, many courses may be unavailable. Students will note that some of the B- and C-level courses in Economics for Management Studies do require Calculus; therefore, students in the Minor Program must choose their courses carefully to ensure that they have the necessary prerequisites.

Note: Students who are enrolled in a B.B.A. program may not enroll in the Minor Program in Economics for Management Studies.

Program Requirements
The program consists of 4.0 credits in Economics for Management Studies as follows:

MGEA01H3 *or* MGEA02H3
MGEA05H3 *or* MGEA06H3
MGEB01H3 *or* MGEB02H3
MGEB05H3 *or* MGEB06H3

and
2.0 credits in Economics for Management Studies including 1.0 credit at the C-level.

Note: Students are warned that they are not guaranteed admission to most of the B-level and C-level courses. The following C-level courses, MGEC91H3, MGEC92H3 & MGEC93H3, are available to students in the minor program at the beginning of the registration period.

Note: Students may if they wish, count STAB22H3, ANTC35H3, PSYB07H3 or (SOCB06H3) or a more advanced statistics course as one half credit B-level Economics course in the Minor Program in Economics for Management Studies. While it is not required, students are strongly encouraged to include a statistics course in the program.

Economics For Management Studies Courses

MGEA01H3 - Introduction to Microeconomics

Economic theory of the firm and the consumer. Although calculus is not used in this course, algebra and graphs are used extensively to illuminate economic analysis.
Note: This course is not for students interested in applying to the Specialists in Management and Economics leading to the B.B.A or for the Major program in Economics.

Exclusion: MGEA02H3, ECO100Y1, ECO105Y1, ECO101H5
Breadth Requirements: Social & Behavioural Sciences

MGEA02H3 - Introduction to Microeconomics: A Mathematical Approach

Economic theory of the firm and the consumer. Calculus, algebra and graphs are used extensively. The course is oriented towards students interested in the Specialist Program in Management, the Specialist program in Economics for Management Studies, and the Major Program in Economics for Management Studies.

Exclusion: MGEA01H3, ECO100Y1, ECO105Y1, ECO101H5
Recommended Preparation: Completion of Grade 12 Calculus is strongly recommended. It is also recommended that MATA32H3 and MATA33H3 (or equivalents) be taken simultaneously with MGEA02H3 and MGEA06H3.
Breadth Requirements: Social & Behavioural Sciences

MGEA05H3 - Introduction to Macroeconomics

Topics include output, employment, prices, interest rates and exchange rates. Although calculus is not used in this course, algebra and graphs are used extensively to illuminate economic analysis.
Note: This course is not for students interested in applying to the Specialists in Management and Economics leading to the B.B.A or for the Major program in Economics.

Exclusion: MGEA06H3, ECO100Y1, ECO105Y1, ECO102H5
Breadth Requirements: Social & Behavioural Sciences

MGEA06H3 - Introduction to Macroeconomics: A Mathematical Approach

Study of the determinants of output, employment, prices, interest rates and exchange rates. Calculus, algebra and graphs are used extensively. The course is oriented towards students interested in the Specialist Program in Management, the Specialist program in Economics for Management Studies, and the Major Program in Economics for Management Studies.

Exclusion: MGEA05H3, ECO100Y1, ECO105Y1, ECO102H5
Recommended Preparation: Completion of Grade 12 Calculus is strongly recommended. It is also recommended that MATA32H3 and MATA33H3 (or equivalents) be taken simultaneously with MGEA02H3 and MGEA06H3.
Breadth Requirements: Social & Behavioural Sciences

MGEB01H3 - Price Theory

This course covers the intermediate level development of the principles of microeconomic theory. The emphasis is on static partial equilibrium analysis. Topics covered include: consumer theory, theory of production, theory of the firm, perfect competition and monopoly. This course does not qualify as a credit for either the Major in Economics for Management Studies or the B.B.A.

Prerequisite: [MGEA01H3 or MGEA02H3] and [MGEA05H3 or MGEA06H3]
Exclusion: MGEB02H3, ECO200Y1, ECO204Y1, ECO206Y1
Enrolment Limits: 120 per section
Breadth Requirements: Social & Behavioural Sciences

MGEB02H3 - Price Theory: A Mathematical Approach

Intermediate level development of the principles of microeconomic theory. The course will cover the same topics as MGEB01H3/(ECMB01H3), but will employ techniques involving calculus so as to make the theory clearer to students. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]. Students who have completed MGEA01H3 and MGEA05H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] may be admitted with the permission of the Academic Director, Economics.
Exclusion: MGEB01H3, ECO200Y1, ECO204Y1, ECO206Y1
Enrolment Limits: 80 per section
Breadth Requirements: Social & Behavioural Sciences

MGEB05H3 - Macroeconomic Theory and Policy

Intermediate level development of the principles of macroeconomic theory. Topics covered include: theory of output, employment and the price level. This course does not qualify as a credit for either the Major in Economics for Management Studies or for the B.B.A.

Prerequisite: [MGEA01H3 or MGEA02H3] and [MGEA05H3 or MGEA06H3]
Exclusion: MGEB06H3, ECO202Y1, ECO208Y1, ECO209Y1
Enrolment Limits: 120 per section
Breadth Requirements: Social & Behavioural Sciences

MGEB06H3 - Macroeconomic Theory and Policy: A Mathematical Approach

Intermediate level development of the principles of macroeconomic theory. The course will cover the same topics as MGEB05H3/(ECMB05H3), but will employ techniques involving calculus so as to make the theory clearer to students. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]. Students who have completed MGEA01H3 and MGEA05H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] may be admitted with the permission of the Academic Director, Economics.
Exclusion: MGEB05H3, ECO202Y1, ECO208Y1, ECO209Y1
Enrolment Limits: 80 per section
Breadth Requirements: Social & Behavioural Sciences

MGEB11H3 - Quantitative Methods in Economics I

An introduction to probability and statistics as used in economic analysis. Topics to be covered include: descriptive statistics, probability, special probability distributions, sampling theory, confidence intervals. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]; Students who have completed MGEA01H3 and MGEA05H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] may be admitted with the permission of the Academic Director, Economics.
Exclusion: ANTC35H3, ECO220Y1, ECO227Y1, PSYB07H3, (SOCB06H3), STAB22H3, STAB23H3, STAB52H3, STAB57H3
Enrolment Limits: 120 per section
Breadth Requirements: Quantitative Reasoning

MGEB12H3 - Quantitative Methods in Economics II

A second course in probability and statistics as used in economic analysis. Topics to be covered include: confidence intervals, hypothesis testing, simple and multiple regression. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: [MGEB11H3 or [STAB52H3 and STAB57H3]] and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]
Exclusion: ECO220Y1, ECO227Y1, STAB27H3, STAC67H3
Enrolment Limits: 80 per section
Breadth Requirements: Quantitative Reasoning
Note: STAB27H3 is not equivalent to MGEB12H3/(ECMB12H3).

MGEB31H3 - Public Decision Making

A study of decision-making by governments from an economic perspective. The course begins by examining various rationales for public involvement in the economy and then examines a number of theories explaining the way decisions are actually made in the public sector. The course concludes with a number of case studies of Canadian policy making.

Prerequisite: [MGEA01H3 or MGEA02H3] and [MGEA05H3 or MGEA06H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEB32H3 - Economic Aspects of Public Policy

Cost-Benefit Analysis (CBA) is a key policy-evaluation tool developed by economists to assess government policy alternatives and provide advice to governments. In this course, we learn the key assumption behind and techniques used by CBA and how to apply these methods in practice.

Prerequisite: [MGEA01H3 or MGEA02H3] and [MGEA05H3 or MGEA06H3]
Corequisite: MGEB01H3 or MGEB02H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEB60H3 - Comparative Economic Systems

A research-oriented course focused on the application of general systems theory to comparative analysis of alternative economic systems, capitalist, socialist and other. Half of the course will focus on general theoretical systems models; the other half will empirically study Russia, China and other systems.

Prerequisite: [MGEA01H3 or MGEA02H3] and [MGEA05H3 or MGEA06H3]
Corequisite: MGEB01H3 or MGEB02H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC02H3 - Topics in Price Theory

Continuing development of the principles of microeconomic theory. This course will build on the theory developed in MGEB02H3/(ECMB02H3). Topics will be chosen from a list which includes: monopoly, price discrimination, product differentiation, oligopoly, game theory, general equilibrium analysis, externalities and public goods. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEB02H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]
Exclusion: MGEC92H3, ECO200Y1, ECO2041Y, ECO206Y1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC06H3 - Topics in Macroeconomic Theory

Continuing development of the principles of macroeconomic theory. The course will build on the theory developed in MGEB06H3/(ECMB06H3). Topics will be chosen from a list including consumption theory, investment, exchange rates, rational expectations, inflation, neo-Keynesian economics, monetary and fiscal policy. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEB06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]
Exclusion: ECO202Y1, ECO208Y1, ECO209Y1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC08H3 - Economics of Markets and Financial Decision Making

This course covers key concepts and theories in both microeconomics and macroeconomics that are relevant to businesses and investors. Topics to be covered include the market structures; the economics of regulations; the foreign exchange market; economic growth; and policy mix under different macro settings. Aside from enhancing students' understanding of economic analyses, this course also helps students prepare for the economics components in all levels of the CFA exams.

Prerequisite: MGEB02H3 and MGEB06H3
Exclusion: MGEC02H3, MGEC41H3, MGEC92H3, MGEC93H3, ECO200Y1, ECO204Y1, ECO206Y1, ECO310H1, ECO364H1, ECO365H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGEC11H3 - Introduction to Regression Analysis

This course will develop the knowledge and skills necessary to obtain and analyze economic data, providing an introduction to the use and interpretation of regression analysis. Students will learn how to estimate regressions, undertake hypothesis tests, and critically assess statistical results. Students will be required to write a major analytical report. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEB11H3 and MGEB12H3
Exclusion: ECO374H5, ECM375H5, STA302H; MGEC11H3 may not be taken after STAC67H3.
Enrolment Limits: 40
Breadth Requirements: Quantitative Reasoning

MGEC20H3 - Economics of the Media

An examination of the role and importance of communications media in the economy. Topics to be covered include: the challenges media pose for conventional economic theory, historical and contemporary issues in media development, and basic media-research techniques. The course is research-oriented, involving empirical assignments and a research essay.

Prerequisite: MGEB01H3 or MGEB02H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC21H3 - Classics in the History of Economic Thought

A study of the literature of economics, both past and current. Students will read economists important in the development of current economic thought, including Smith, Marx, and Keynes, and will also read the ideas of some important current economic thinkers. Emphasis is on primary sources rather than secondary commentaries.

Prerequisite: [MGEB01H3 or MGEB02H3] and [MGEB05H3 or MGEB06H3]
Exclusion: ECO322Y1, ECO429H1, ECO428H1
Enrolment Limits: 60 per section
Breadth Requirements: Social & Behavioural Sciences

MGEC22H3 - Behavioural Economics

Intermediate level development of the principles of behavioural economics. Behavioural economics aims to improve policy and economic models by incorporating psychology and cognitive science into economics. The course will rely heavily on the principles of microeconomic analysis.

Prerequisite: MGEB02H3
Recommended Preparation: Grade B or higher in MGEB02H3. MGEC02H3 and the basics of game theory would be helpful.
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students who have completed MGEC02H3.

MGEC31H3 - Economics of the Public Sector: Taxation

A course concerned with the revenue side of government finance. In particular, the course deals with existing tax structures, in Canada and elsewhere, and with criteria for tax design.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: MGEC91H3, ECO336H1, ECO337H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC32H3 - Economics of the Public Sector: Expenditures

A study of resource allocation in relation to the public sector, with emphasis on decision criteria for public expenditures. The distinction between public and private goods is central to the course.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: MGEC91H3, ECO336H1, ECO337H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC34H3 - Economics of Health Care

A study of the economic principles underlying health care and health insurance.
This course is a survey of some of the major topics in health economics. Some of the topics that will be covered will include the economic determinants of health, the market for medical care, the market for health insurance, and health and safety regulation.

Prerequisite: MGEB02H3
Exclusion: ECO369H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC37H3 - Law and Economics

A study of laws and legal institutions from an economic perspective. It includes the development of a positive theory of the law and suggests that laws frequently evolve so as to maximize economic efficiency. The efficiency of various legal principles is also examined. Topics covered are drawn from: externalities, property rights, contracts, torts, product liability and consumer protection, and procedure.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: ECO320H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC38H3 - The Economics of Canadian Public Policy

This course provides a comprehensive study of selected Canadian public policies from an economic point of view. Topics may include environmental policy, competition policy, inflation and monetary policy, trade policy and others. We will study Canadian institutions, decision-making mechanisms, implementation procedures, policy rationales, and related issues.

Prerequisite: [MGEB01H3 or MGEB02H3] and [MGEB05H3 or MGEB06H3]
Exclusion: ECO336H1, ECO337H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC40H3 - Economics of Organization and Management

This course examines the economics of the internal organization of the firm. Emphasis will be on economic relationships between various parties involved in running a business: managers, shareholders, workers, banks, and government.
Topics include the role of organizations in market economies, contractual theory, risk sharing, property rights, corporate financial structure and vertical integration.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: ECO310H1, ECO370Y5, ECO380H5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC41H3 - Industrial Organization

This course covers the economics of the firm in a market environment. The aim is to study business behaviour and market performance as influenced by concentration, entry barriers, product differentiation, diversification, research and development and international trade. There will be some use of calculus in this course.

Prerequisite: MGEB02H3
Exclusion: MGEC92H3, ECO310H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC51H3 - Labour Economics I

Applications of the tools of microeconomics to various labour market issues. The topics covered will include: labour supply; labour demand; equilibrium in competitive and non-competitive markets; non-market approaches to the labour market; unemployment. Policy applications will include: income maintenance programs; minimum wages; and unemployment.

Prerequisite: MGEB02H3
Exclusion: ECO339H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC52H3 - Labour Economics II

A continuation of MGEC51H3/(ECMC51H3). Topics covered will include: unions; wage structures; sex and race discrimination; human capital theory; investment in education. Policy issues discussed will include: pay equity; affirmative action; training initiatives; and migration.

Prerequisite: MGEC51H3 and MGEB02H3 and MGEB12H3
Exclusion: MGEC58H3, ECO340H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC54H3 - Economics of Training and Education

This course studies the economic aspects of how individuals and firms make decisions: about education and on-the-job training. Economics and the business world consider education and training as investments. In this class, students will learn how to model these investments, and how to create good policies to encourage individuals and firms to make wise investment decisions.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: ECO338H1, ECO412Y5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC58H3 - Economics of Human Resource Management

This course focuses on the various methods that firms and managers use to pay, recruit and dismiss employees. Topics covered may include: training decisions, deferred compensation, variable pay, promotion theory, incentives for teams and outsourcing.

Prerequisite: MGEB02H3
Exclusion: MGEC52H3, ECO381H5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC61H3 - International Economics: Finance

Macroeconomic theories of the balance of payments and the exchange rate in a small open economy. Recent theories of exchange-rate determination in a world of floating exchange rates. The international monetary system: fixed "versus" flexible exchange rates, international capital movements, and their implications for monetary policy.

Prerequisite: MGEB05H3 or MGEB06H3
Exclusion: ECO230Y1, ECO365H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC62H3 - International Economics: Trade Theory

An outline of the theories of international trade that explain why countries trade with each other, and the welfare implications of this trade, as well as empirical tests of these theories. The determination and effects of trade policy instruments (tariffs, quotas, non-tariff barriers) and current policy issues are also discussed.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: MGEC93H3, ECO230Y1, ECO364H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC71H3 - Money and Banking

There will be a focus on basic economic theory underlying financial intermediation and its importance to growth in the overall economy. The interaction between domestic and global financial markets, the private sector, and government will be considered.

Prerequisite: MGEB05H3 or MGEB06H3
Exclusion: ECO349H1
Enrolment Limits: 60 per section
Breadth Requirements: Social & Behavioural Sciences

MGEC72H3 - Financial Economics

This course introduces students to the theoretical underpinnings of financial economics. Topics covered include: intertemporal choice, expected utility, the CAPM, Arbitrage Pricing, State Prices (Arrow-Debreu security), market efficiency, the term structure of interest rates, and option pricing models. Key empirical tests are also reviewed.

Prerequisite: MGEB02H3 and MGEB06H3 and MGEB12H3
Exclusion: ECO358H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC80H3 - Topics in North American Economic Development

A study of the history of economic development in North America. Students will survey current theoretical approaches in economic history, study particular topics in North American economic history, and develop hands-on practice in data collection and analysis.

Prerequisite: MGEB01H3 or MGEB02H3 or MGEB05H3 or MGEB06H3
Exclusion: ECO321H1, ECO322H1
Enrolment Limits: 60 per section
Breadth Requirements: History, Philosophy & Cultural Studies

MGEC81H3 - Economic Development

An introduction to the processes of growth and development in less developed countries and regions. Topics include economic growth, income distribution and inequality, poverty, health, education, population growth, rural and urban issues, and risk in a low-income environment.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: ECO324H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC82H3 - International Aspects of Development Policy

This course will use the tools of economics to understand international aspects of economic development policy. Development policy will focus on understanding the engagement of developing countries in the global economy, including the benefits and challenges of that engagement. Topics to be discussed will include globalization and inequality, foreign aid, multinational corporations, foreign direct investment, productivity, regional economic integration, and the environment.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: ECO324H1, ECO362H5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC91H3 - Economics and Government

This course provides an overview of what governments can do to benefit society, as suggested by economic theory and empirical research. It surveys what governments actually do, especially Canadian governments. Efficient methods of taxation and methods of controlling government are also briefly covered.
Note: This course may be applied to the C-level course requirements of the Minor Program in Economics for Management Studies. It may not, however, be used to meet the requirements of any program that leads to a B.B.A. or of the Major Program in Economics for Management Studies.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: MGEC31H3, MGEC32H3, ECO336Y5, ECO336H1, ECO337H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC92H3 - Economics of Markets and Pricing

The course builds on MGEB01H3 or MGEB02H3 by exposing students to the economics of market structure and pricing. How and why certain market structures, such as monopoly, oligopoly, perfect competition, etc., arise. Attention will also be given to how market structure, firm size and performance and pricing relate. Role of government will be discussed.
Note: This course may be applied to the C-level course requirements of the Minor Program in Economics for Management Studies. It may not, however, be used to meet the requirements of any program that leads to a B.B.A. or of the Major Program in Economics for Management Studies.

Prerequisite: MGEB01H3 or MGEB02H3
Exclusion: MGEC02H3, MGEC41H3, ECO200Y1, ECO204Y1, ECO206Y1, ECO310H1, ECO310Y5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGEC93H3 - International Economics

This course provides general understanding on issues related to open economy and studies theories in international trade and international finance. Topics include why countries trade, implications of various trade policies, theories of exchange rate determination, policy implications of different exchange rate regimes and other related topics.
Note: This course may be applied to the C-level course requirements of the Minor Program in Economics for Management Studies. It may not, however, be used to meet the requirements of any program that leads to a B.B.A. or of the Major Program in Economics for Management Studies.

Prerequisite: [MGEB01H3 or MGEB02H3] and [MGEB05H3 or MGEB06H3]
Exclusion: MGEC62H3, ECO230Y1, ECO364H1, ECO365H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGED02H3 - Advanced Microeconomic Theory

An upper-level extension of the ideas studied in MGEC02H3. The course offers a more sophisticated treatment of such topics as equilibrium, welfare economics, risk and uncertainty, strategic and repeated interactions, agency problems, and screening and signalling problems. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEB12H3 and MGEC02H3
Exclusion: ECO326H1
Enrolment Limits: 35
Breadth Requirements: Social & Behavioural Sciences

MGED06H3 - Advanced Macroeconomic Theory

This course will review recent developments in macroeconomics, including new classical and new Keynesian theories of inflation, unemployment and business cycles. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEB12H3 and MGEC06H3
Exclusion: ECO325H1
Enrolment Limits: 35
Breadth Requirements: Social & Behavioural Sciences

MGED11H3 - Theory and Practice of Regression Analysis

This is an advanced course building on MGEC11H3. Students will master regression theory, hypothesis and diagnostic tests, and assessment of econometric results. Treatment of special statistical problems will be discussed. Intensive computer-based assignments will provide experience in estimating and interpreting regressions, preparing students for MGED50H3. Enrolment is limited to students registered in programs requiring this course.

Prerequisite: MGEB02H3 and MGEB06H3 and MGEB11H3 and MGEB12H3 and MGEC11H3
Exclusion: ECO475H1
Enrolment Limits: 30
Breadth Requirements: Quantitative Reasoning

MGED43H3 - Organization Strategies

Explores the issue of outsourcing, and broadly defines which activities should a firm do "in-house" and which should it take outside? Using a combination of cases and economic analysis, it develops a framework for determining the "best" firm organization.

Prerequisite: MGEB02H3 and [MGEC40H3 or MGEC41H3]
Exclusion: RSM481H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGED50H3 - Workshop in Economic Research

This course introduces to students the techniques used by economists to define research problems and to do research. Students will choose a research problem, write a paper on their topic and present their ongoing work to the class.

Prerequisite: MGEB02H3 and MGEC02H3 and MGEB06H3 and MGEC06H3 and MGEB11H3 and MGEB12H3 and MGEC11H3. This course should be taken among the last 5.0 credits of a twenty-credit degree.
Corequisite: MGED11H3
Exclusion: ECO499H1
Enrolment Limits: 8
Breadth Requirements: Social & Behavioural Sciences

MGED63H3 - Financial Crises: Causes, Consequences and Policy Implications

This course studies the causes, consequences and policy implications of recent financial crises. It studies key theoretical concepts of international finance such as exchange-rate regimes, currency boards, common currency, banking and currency crises. The course will describe and analyze several major episodes of financial crises, such as East Asia, Mexico and Russia in the 1990s, Argentina in the early 2000s, the U.S. and Greece in the late 2000s, and others in recent years.

Prerequisite: MGEC61H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGED70H3 - Financial Econometrics

Financial econometrics applies statistical techniques to analyze the financial data in order to solve problems in Finance. In doing so, this course will focus on four major topics: Forecasting returns, Modeling Univariate and Multivariate Volatility, High Frequency and market microstructure, Simulation Methods and the application to risk management.

Prerequisite: MGEC11H3 and [MGEC72H3 or MGFC10H3]
Exclusion: ECO462H`
Enrolment Limits: 30
Breadth Requirements: Quantitative Reasoning

MGED90H3 - Supervised Reading

These courses will normally be made available only to upper-level students whose interests are not covered by other courses and whose performance in Economics courses has been well above average. Not all faculty will be available for these courses in any single session.
Note: Students must obtain consent from the Supervisor of Studies, supervising instructor and the Department of Management before registering for this course.

MGED91H3 - Supervised Reading

These courses will normally be made available only to upper-level students whose interests are not covered by other courses and whose performance in Economics courses has been well above average. Not all faculty will be available for these courses in any single session.
Note: Students must obtain consent from the Supervisor of Studies, supervising instructor and the Department of Management before registering for this course.

English

Faculty List

- K. Akiwenzie-Damm, M.A. (Ottawa), Assistant Professor, Teaching Stream
- M. Assif, B.A. (Hassan II), M.A., Ph.D. (Case Western Reserve), Associate Professor, Teaching Stream
- C. Bolus-Reichert, M.A., Ph.D. (Indiana), Associate Professor
- U. Chakravarty, B.A. (Columbia), Ph.D. (Pennsylvania), Assistant Professor
- R.M. Brown, M.A., Ph.D. (Binghamton), Professor Emeritus
- M.C. Cuddy-Keane, M.A., Ph.D. (Toronto), Professor Emerita
- N. Dolan, M.A., Ph.D. (Harvard), Associate Professor
- A. DuBois, B.A. (Duke), Ph.D. (Harvard), Associate Professor
- D. Flynn, M.A., Ph.D. (Berkeley), Lecturer
- K. Gaston, A.B. (Princeton), M.Phil. (Cambridge), Ph.D. (Pennsylvania), Assistant Professor
- M.B. Goldman, M.A. (Victoria), Ph.D. (Toronto), Professor
- S.D. King, M.A., Ph.D. (Western), Associate Professor, Teaching Stream
- K.R. Larson, M.Phil., M.St. (Oxford), Ph.D. (Toronto), Professor
- G. Leonard, M.A., Ph.D. (Florida), Professor
- R. Lundy, M.A. (Saskatchewan), Assistant Professor, Teaching Stream
- A. Maurice, M.A., Ph.D. (Cornell), Associate Professor
- A. Milne, M.A., Ph.D. (McMaster), Lecturer
- S. Nikkila, B.A. (Harvard), Ph.D. (Edinburgh), Assistant Professor, Teaching Stream
- Y. Ryzhik, Ph.D. (Harvard), Assistant Professor (CLTA)
- S. Sathiyaseelan, M.A. (Nebraska-Lincoln), Ph.D. (Florida State), Assistant Professor, Teaching Stream
- S. Saljoughi, B.A. (Toronto), M.A. (Ryerson), M.A. (Ryerson), Ph.D. (Minnesota), Assistant Professor
- N. ten Kortenaar, M.A., Ph.D. (Toronto), Professor
- D. Tysdal, B.A. (Regina), M.A. (Acadia), M.A. (Toronto), Associate Professor, Teaching Stream
- K. Vernon, B.A., M.A. (Simon Fraser), Ph.D. (Victoria), Associate Professor
- L. Wey, M.A., Ph.D. (Harvard), Lecturer
- A. Westoll, B.Sc. (Queens), M.F.A. (UBC), Associate Professor, Teaching Stream

Chair: N. ten Kortenaar

The discipline of English at UTSC explores the rich variety of texts produced in the English-speaking world across historical periods and geographical boundaries. Encompassing creative writing, film studies, and literature, our curriculum encourages students to think and write critically about the development of particular genres, the relationship between literary works and other art forms, and the production and dissemination of texts in different historical and cultural contexts. The English programs at UTSC give students the tools to engage with new ways of thinking, speaking, and writing about the world around them and, in so doing, to interact with and to change that world through critical language and argument.

- A-level courses introduce students to the study of English at the university level.

- B-level courses have no prerequisites and are available both to beginners and to more advanced students.
- C-level courses are designed to build upon previous work. While they are open to all upper-level students, they presuppose some background in critical skills.
- D-level courses provide opportunities for more sophisticated studies and require some independent work on the part of the student. These courses are generally restricted in enrolment and focus on seminar discussions.

Students are advised to check the prerequisites for C- and D-level courses when planning their individual programs, and to consult with the Program Supervisor before taking courses on other campuses.

Students planning to pursue graduate studies in English are advised to include ENGC15H3 within their program (it is required for the English Specialist) and to consider enrolling in ENGD98Y3, an intensive capstone seminar that provides qualified students with the opportunity to develop a senior essay project under the supervision of a faculty member in English. The Program Supervisor is available by appointment to advise students selecting courses with graduate study in mind.

Combined Degree Programs, Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Guidelines for first-year course selection
ENGA01H3 and ENGA02H3 introduce students to the study of literature at the university level and are part of the core requirements for the English Specialist, Major, and Minor.
ENGA03H3 introduces students to the craft of creative writing and is required for admission to the Creative Writing Minor. ENGA10H3 and/or ENGA11H3 provide another valuable entry point to introductory work in literary studies. First-year students who are considering the Minor in Literature and Film Studies should enroll in ENGA10H3 and/or ENGA11H3, which are part of the core requirements for this program. All of these courses are also open to students with a general interest in English. First-year are welcome to begin taking B-level classes alongside their introductory

The Minor Programs in both Creative Writing and Film & Literature Studies can be paired alongside a Major Program in English, if desired, as there are enough exclusive credits between program requirements.

English Courses

The following categories offer a broad orientation to English as a discipline and suggest some of our department's core areas of strength. They can be a guide for selecting related courses as students move through the program. They also highlight some of the possible routes and threads students can follow as they develop particular areas of interest.

Students should keep in mind that these categories are not mutually exclusive and that an important aspect of studying English literature involves thinking critically about the construction of historical and thematic boundaries. Students are also encouraged to develop thematic routes and threads through the program that reflect their individual areas of interest. Faculty members are available for individual consultation to discuss possibilities.

Medieval Literature
ENGB27H3, ENGB31H3, ENGB39H3, ENGC29H3, ENGC30H3, ENGC40H3, ENGD29H3, ENGD30H3

Early Modern (Renaissance) Literature
ENGB27H3, ENGB32H3, ENGB33H3, ENGC10H3, ENGC33H3, ENGC34H3, ENGC35H3, ENGD14H3, ENGD19H3

Long 18th-Century British Literature
ENGB28H3, ENGC36H3, ENGC37H3, ENGC38H3, ENGC39H3, ENGC69H3, ENGD18H3

Long 19th-Century British Literature (Includes Romantic and Victorian)
ENGB28H3, ENGC21H3, ENGC22H3, ENGC25H3, ENGC42H3, ENGC43H3, ENGC69H3, ENGD43H3, ENGD48H3, ENGD89H3

Modernism, Modernity, and Postmodernity
ENGA10H3, ENGA11H3, ENGB14H3, ENGB28H3, ENGB75H3, ENGB76H3, ENGC47H3, ENGC80H3, ENGD07H3, ENGD13H3, ENGD42H3, ENGD91H3

Canadian Literature
ENGB06H3, ENGB07H3, ENGB25H3, ENGC01H3, ENGC02H3, ENGC03H3, ENGC07H3, ENGC09H3, ENGC14H3, ENGC70H3, ENGC71H3, ENGD05H3, ENGD57H3, ENGD58H3, ENGD80H3, ENGD84H3

American Literature
ENGB08H3, ENGB09H3, ENGC12H3, ENGC13H3, ENGC50H3, ENGC70H3, ENGC71H3, ENGC91H3, ENGD59H3, ENGD60H3

Postcolonial, Diasporic, and World Literatures
ENGB17H3, ENGB19H3, ENGB22H3, ENGC51H3, ENGC59H3, ENGC70H3, ENGC71H3, ENGC83H3, ENGC84H3, ENGD08H3, ENGD62H3, ENGD71H3, ENGD96H3

Form and Genre
ENGA01H3, ENGB04H3, ENGB12H3, ENGB14H3, ENGB30H3, ENGB31H3, ENGB34H3, ENGB35H3, ENGB70H3, ENGC23H3, ENGC24H3, ENGC26H3, ENGC27H3, ENGC28H3, ENGC38H3, ENG

C41H3, ENGC48H3, ENGC47H3, ENGC54H3, ENGC69H3, ENGC78H3, ENGC80H3, ENGC90H3, ENGD07H3, ENGD12H3, ENGD13H3, ENGD94H3

Aspects of Theory
ENGB50H3, ENGC15H3, ENGC45H3, ENGC54H3, ENGC59H3, ENGC76H3, ENGC82H3, ENGD03H3, ENGD19H3, ENGD55H3, ENGD93H3, ENGD98Y3

Literature, Culture, and the Other Arts
ENGA10H3, ENGA11H3, ENGB37H3, ENGB38H3, ENGB50H3, ENGC04H3, ENGC05H3, ENGC06H3, ENGC11H3, ENGC23H3, ENGC41H3, ENGC43H3, ENGC54H3, ENGC56H3, ENGC76H3, ENGC78H3, ENGC79H3, ENGC89H3, ENGD13H3, ENGD50H3, ENGD54H3, ENGD68H3

Creative Writing
ENGB60H3, ENGB61H3, ENGB63H3, ENGC04H3, ENGC05H3, ENGC06H3, ENGC08H3, ENGC24H3, ENGC86H3, ENGC87H3, ENGC88H3, ENGD22H3, ENGD26Y3, ENGD27Y3, ENGD28Y3

Literature and Film Studies
ENGB70H3, ENGB71H3, ENGB74H3, ENGB75H3, ENGB76H3, ENGC56H3, ENGC75H3, ENGC78H3, ENGC82H3, ENGC83H3, ENGC84H3, ENGC92H3, ENGD52H3, ENGD62H3, ENGD91H3, ENGD93H3, ENGD94H3, ENGD96H3

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

English Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics	Science - Physics

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Physical and Mathematical Sciences	
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.

- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;

    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

DOUBLE DEGREE: HONOURS BA, SPECIALIST PROGRAM IN ENGLISH / HONOURS BSc, SPECIALIST PROGRAM IN PSYCHOLOGY

This Double Degree program creates an accelerated pathway for students who would otherwise have to complete two separate Specialist programs and two separate degrees. It will provide students with a thorough, interdisciplinary education in both literary studies and Psychology. The Double Degree program takes advantage of existing synergies to allow students to complete both undergradudate programs and degrees within five years, without compromising on the core requirements of either program.

Enrolment Requirements

Enrolment in the Double Degree is limited. Students may apply after completing a minimum of 4.0 credits including ENGA01H3, ENGA02H3, PSYA01H3 and PSYA02H3. A final grade of at least 75% is required in each of PSYA01H3 and PSYA02H3. Students should apply to the program before they have completed 7.5 credits; however, students who have completed between 7.5 and 10.0 credits may apply to the program on a case-by-case basis by petitioning the program supervisor. Students who have completed more than 10.0 credits may not apply to the program. Application for admission will be made to the Office of the Registrar through ACORN in March/April and June/July.

Program Requirements
This program requires the completion of 25.0 credits, including at least 7.0 credits at the C-level and at least 3.5 credits at the D-level.

Psychology Courses **(10.5 credits)**

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits):
PSYB70H3 Methods in Psychological Science
PSYC70H3 Advanced Research Methods Laboratory
and 0.5 credit from among the following:

- PSYC06H3 Psychophysiology Laboratory
- [PSYC71H3 or (PSYC11H3) Social Psychology Laboratory]
- [PSYC72H3 or (PSYC26H3) Developmental Psychology Laboratory]
- [PSYC74H3 or (PSYC05H3) Human Movement Laboratory]
- [PSYC75H3 or (PSYC58H3) Cognitive Psychology Laboratory]
- [PSYC76H3 or (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit):
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (4.5 credits):
Students are required to take 2.5 credits at the B-level or C-level from one of the two content groups listed below, and 2.0 credits from the other group:
(a) Social and Developmental (PSY courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (PSY courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit):
Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (PSY courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (PSY courses listed in the 50- and 60-series)

8. Additional 0.5 credit in Psychology at the C-level (0.5 credit)

***English Courses* (10.0 credits)**
Of the 10.0 credits, at least 3.0 credits must be at the C-level and 1.5 credits at the D-level.

1. All of the following (2.5 credits):
ENGA01H3 What is Literature?
ENGA02H3 Critical Writing About Literature
ENGB27H3 Charting Literary History I
ENGB28H3 Charting Literary History II
ENGC15H3 Introduction to Literary Theory and Criticism

2. 1.5 additional credits from courses whose content is pre-1900 (1.5 credits):
*See the English Course List for pre-1900 courses

3. 0.5 credit in Canadian Literature (0.5 credits):
*See the English Course List for courses in Canadian Literature

4. 5.5 additional credits in English

Notes:
1.Students may count no more than one of the following courses towards the Specialist requirements:
- ENGB35H3 Children's Literature
- (ENGB36H3) Detective Fiction

- (ENGB41H3) Science Fiction
2. The following courses do not count towards any English programs: ENG100H, ENG185Y.

Additional Psychology/English Courses **(2.0 credits)**
Students must complete a further 2.0 credits. Courses selected to complete this component can be in either English or Psychology or a combination of the two.

1. 1.0 credit at the C- or D-level in PSY and/or ENG courses

2. Capstone Requirement (1.0 credit)
Students must choose one of the options listed below:
ENGD26Y3 Independent Studies in Creative Writing: Poetry
ENGD27Y3 Independent Studies in Creative Writing: Prose
ENGD28Y3 Independent Studies in Creative Writing: Special Topics
ENGD98Y3 Senior Essay and Capstone Seminar
PSYD98Y3 Thesis in Psychology

SPECIALIST PROGRAM IN ENGLISH (ARTS)

Program Supervisor: K. Vernon (416-287-7165). Email: kvernon@utsc.utoronto.ca

Program Requirements
12.0 credits in English are required of which at least 3.0 credits must be at the C-level and 1.5 credits at the D-level. They should be selected as follows:

1. All of the following:
ENGA01H3 What is Literature?
ENGA02H3 Critical Writing About Literature
ENGB27H3 Charting Literary History I
ENGB28H3 Charting Literary History II
ENGC15H3 Introduction to Literary Theory and Criticism

2. 1.5 additional credits from courses whose content is pre-1900*
*See the English Course List for courses in pre-1900

3. 0.5 credit in Canadian Literature*
*See the English Course List for courses in Canadian Literature

4. 7.5 additional credits in English

Note: Students may count no more than one of the following courses towards the Specialist requirements:
ENGB35H3 Children's Literature
(ENGB36H3) Detective Fiction
(ENGB41H3) Science Fiction

Students may count no more than 1.0 credit of D-level independent study [ENGD26Y3, ENGD27Y3, ENGD28Y3, (ENGD97H3), (ENGD99H3)] towards an English program.
The following courses do not count towards any English programs: ENG100H, ENG185Y.

SPECIALIST (CO-OPERATIVE) PROGRAM IN ENGLISH (ARTS)

Program Supervisor: N. Dolan (416-287-7174) Email: english-program-supervisor@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in English is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to English upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in English.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in English and have completed at least 9.0 credits, including ENGA01H3 and ENGA02H3.

In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required

degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN CREATIVE WRITING (ARTS)

The Major in Creative Writing offers students the opportunity to deepen their development as literary artists, and to gain a comprehensive historical and critical understanding of literary and creative practice. Benefiting from workshop-based courses and feedback from award-winning faculty and visiting writers, as well as from peer review, students will produce original work in a range of genres, encompassing poetry, fiction, non-fiction, screenwriting, and comics. Students will graduate with the confidence and tools they need to continue developing as writers. They will also emerge from this program with the practical knowledge and experience to professionalize their creative skills into fields as diverse as publishing, editing, communications, public relations, marketing, and advertising.

Enrolment Requirements:

Enrolment is limited and admission is by portfolio. Students will be able to apply to the program after they have completed a minimum of 4.0 credits, including ENGA03H3.

Applicants must submit a portfolio of 15-20 pages representing their best writing in poetry, fiction (either short stories or selections from a longer work), and/or creative non-fiction; portfolios may include work completed prior to admission to UTSC. The portfolio must be accompanied by a brief letter of application (1-2 pages) addressed to the Program Advisor in Creative Writing. The letter should discuss the applicant's experience as a writer, their future goals in the creative writing program, and a work of literature that has inspired them. Portfolios should be submitted to creative-writing@utsc.utoronto.ca by the application deadlines for limited enrolment programs - normally March/April for students applying at the end of the Winter session and June/July for students applying at the end of the Summer session. Students should visit the Office of the Registrar website for exact dates.

Students who are not successful in their first attempt at applying for the program will be eligible to apply again. By the deadlines outlined above, these students must submit a **new** portfolio of 15-20 pages representing their best work in poetry, fiction (either short stories or selections from a longer work), and/or creative non-fiction. The portfolio must be accompanied by a brief letter of application (1-2 pages) addressed to the Program Advisor in Creative Writing at the email address above. The letter should discuss the applicant's experience as a writer, their future goals in the creative writing program, and a work of literature that has inspired them.

Program Requirements:
Students must complete a total of 7.5 credits, of which at least 2.0 credits must be at the C- or D-level.

1. 3.0 credits as follows:
ENGA03H3 Introduction to Creative Writing
ENGB60H3 Creative Writing: Poetry I
ENGB61H3 Creative Writing: Fiction I
ENGB63H3 Creative Writing: Non-Fiction I
[ENGC86H3 Creative Writing: Poetry II or ENGC87H3 Creative Writing: Fiction II or ENGC88H3 Creative Writing: Creative Non-Fiction II]
ENGD95H3 Creative Writing as a Profession

2. 2.0 credits to be selected from the following:
ENGC04H3 Creative Writing: Screenwriting
ENGC05H3 Creative Writing: Poetry and New Media
ENGC06H3 Creative Writing: Writing for Comics
ENGC08H3 Special Topics in Creative Writing I
ENGC24H3 Creative Writing: The Art of the Personal Essay
ENGC86H3 Creative Writing: Poetry II (if not already selected as a required course)
ENGC87H3 Creative Writing: Fiction II (if not already selected as a required course)
ENGC88H3 Creative Writing: Creative Non-Fiction II (if not already selected as a required course)
ENGC89H3 Creative Writing and Performance
ENGD22H3 Special Topics in Creative Writing II
ENGD26Y3 Independent Studies in Creative Writing: Poetry
ENGD27Y3 Independent Studies in Creative Writing: Prose
ENGD28Y3 Independent Studies in Creative Writing: Open Genre

3. 2.5 additional credits in ENG courses

MAJOR PROGRAM IN ENGLISH (ARTS)

Program Supervisor: K. Vernon (416-287-7165). Email: kvernon@utsc.utoronto.ca

P**rogram Requirements**
7.5 credits in English are required They should be selected as follows:

1. 2.0 credits
ENGA01H3 What Is Literature?
ENGA02H3 Critical Writing about Literature
ENGB27H3 Charting Literary History I
ENGB28H3 Charting Literary History II

2. 1.0 additional credit from courses whose content is pre-1900*
*See the English Course List for courses in pre-1900

3. At least 0.5 credit at the D-level in ENG courses

4. 4.0 additional credits in ENG courses of which 2.0 credits must be at the C- or D- level

Notes:
1. Students may count no more than one of the following courses towards the Major requirements: ENGB35H3 Children's Literature, ENGB36H3 Detective Fiction, ENGB41H3 Science Fiction.
2. Students may count no more than one 1.0 credit of D-level independent study [ENGD26Y3, ENGD27Y3, ENGD28Y3, (ENGD97H3), (ENGD99H3)] towards an English program.
3. The following courses do not count towards any English programs: ENG100H, ENG185Y.

MAJOR (CO-OPERATIVE) PROGRAM IN ENGLISH (ARTS)

Program Supervisor: N. Dolan (416-287-7174) Email: english-program-supervisor@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in English is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to English upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet

admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Completion Requirements
Students must complete the program requirements as described in the Major Program in English.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in English and have completed at least 9.0 credits, including ENGA01H3 and ENGA02H3.

In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN CREATIVE WRITING (ARTS)

Program Advisor: D. Tysdal (416-287-7161)

Email: creative-writing@utsc.utoronto.ca

Enrolment Requirements:

Enrolment is limited and admission is by portfolio. Students will be able to apply to the program after they have completed a minimum of 4.0 credits, including ENGA03H3.

Applicants must submit a portfolio of 15-20 pages representing their best writing in poetry, fiction (either short stories or selections from a longer work), and/or creative non-fiction; portfolios may include work completed prior to admission to UTSC. The portfolio must be accompanied by a brief letter of application (1–2 pages) addressed to the Program Advisor in Creative Writing. The letter should discuss the applicant's experience as a writer, their future goals in the creative writing program, and a work of literature that has inspired them.

Portfolios should be submitted to creative-writing@utsc.utoronto.ca by the application deadlines for limited enrolment programs – normally March/April for students applying at the end of the Winter session and June/July for students applying at the end of the Summer session. Students should visit the Office of the Registrar website for exact dates.

Students who are not successful in their first attempt at applying for the program, will be eligible to apply again. By the deadlines outlined above, these students must submit a new portfolio of 15-20 pages representing their best writing in poetry, fiction (either short stories or selections from a longer work), and/or creative non-fiction. The portfolio must be accompanied by a brief letter of application (1–2 pages) addressed to the Program Advisor in Creative Writing. The letter should discuss the applicant's experience as a writer, their future goals in the creative writing program, and a work of literature that has inspired them.

Program Requirements:
Students must complete 4.0 credits as follows. A maximum of 1.0 credit in creative writing courses may be taken at another campus.

1. 1.0 credit as follows:
ENGA03H3 Introduction to Creative Writing
[ENGB60H3 Creative Writing: Poetry I *or* ENGB61H3 Creative Writing: Fiction I]

2. 3.0 credits to be selected from the following:
ENGB60H3 Creative Writing: Poetry I (if not already counted as a required course)
ENGB61H3 Creative Writing: Fiction I (if not already counted as a required course)
ENGB63H3 Creative Writing: Creative Nonfiction I
ENGC04H3 Creative Writing: Screenwriting

ENGC05H3 Creative Writing: Poetry, Experimentation, and Activism
ENGC06H3 Creative Writing: Writing for Comics
ENGC08H3 Special Topics in Creative Writing I
ENGC24H3 Creative Writing: The Art of the Personal Essay
ENGC86H3 Creative Writing: Poetry II
ENGC87H3 Creative Writing: Fiction II
ENGC88H3 Creative Writing: Creative Nonfiction II
ENGC89H3 Creative Writing and Performance
ENGD22H3 Special Topics in Creative Writing II
ENGD26Y3 Independent Studies in Creative Writing: Poetry
ENGD27Y3 Independent Studies in Creative Writing: Prose
ENGD28Y3 Independent Studies in Creative Writing: Open Genre
ENGD95H3 Creative Writing as a Profession

MINOR PROGRAM IN ENGLISH LITERATURE (ARTS)

Program Supervisor: K. Vernon (416-287-7165). Email: kvernon@utsc.utoronto.ca

Program Requirements
4.0 credits in English are required. They should be selected as follows:

1. All of the following:
ENGA01H3 What is Literature?
ENGA02H3 Critical Writing About Literature

2. 3.0 additional credits in ENG courses, of which at least 1.0 credit must be at the C- level or D- level

Students may count no more than 1.0 credit of D-level independent study [ENGD26Y3, ENGD27Y3, ENGD28Y3, (ENGD97H3), ENGD98Y3, (ENGD99H3)] towards an English program.
The following courses do not count towards any English programs: ENG100H, ENG185Y.

MINOR PROGRAM IN LITERATURE AND FILM STUDIES (ARTS)

Program Advisor: G. Leonard (416-287-7141) Email: english-program-supervisor@utsc.utoronto.ca

Program Requirements
4.0 credits in English are required, of which 1.0 must be at the C- or D- level.

1. 1.0 credit as follows:
ENGB70H3 How to Read a Film
[ENGB75H3 Cinema and Modernity I or ENGB76H3 Cinema and Modernity II]

2. 0.5 credit as follows:
[ENGA10H3 Literature and Film for our Time: Visions and Revisions or ENGA11H3 Literature and Film for our Time: Dawn of the Digital]

3. 1.0 credit from the following:
ENGB74H3 The Body in Literature in Film
ENGC44H3 Self and Other in Literature and Film
ENGC56H3 Literature and Media: From Page to Screen

ENGC75H3 Freaks and Geeks: Children in Contemporary Film
ENGC78H3 Dystopian Visions in Fiction and Film
ENGC82H3 Topics in Cinema Studies
ENGC83H3 World Cinema
ENGC84H3 Cinema and Migration
ENGD52H3 Cinema: The Auteur Theory
ENGD62H3 Topics in Postcolonial Literature and Film
ENGD91H3 Avant-Garde Cinema
ENGC92H3 Film Theory
ENGD93H3 Theoretical Approaches to Cinema
ENGD94H3 Stranger than Fiction: The Documentary Film
ENGD96H3 Iranian Cinema

4. 1.5 additional credits in English

Note: Film courses selected from other departments and discipline will be approved for the Minor in Literature and Film Studies on a case-by-case basis.

English Courses

ENGA01H3 - What Is Literature?

This course introduces the fundamentals of studying English at the university level, and builds the skills needed to successfully navigate English degree programs as well as a liberal arts education more broadly. Students will learn how to read texts closely and think critically; they will practice presenting their ideas in a clear, supported way; they will be exposed to a variety of texts in different forms and genres; and they will gain a working familiarity with in-discipline terminology and methodologies. Moreover, the course is an opportunity to explore the power exercised by literature on all levels of society, from the individual and personal to the political and global.

Exclusion: ENG110Y, (ENGB03H3)
Breadth Requirements: Arts, Literature & Language

ENGA02H3 - Critical Writing about Literature

Intensive training in critical writing about literature. Students learn essay-writing skills (explication; organization and argumentation; research techniques; bibliographies and MLA-style citation) necessary for the study of English at the university level through group workshops, multiple short papers, and a major research-based paper. This is not a grammar course; students are expected to enter with solid English literacy skills.

Exclusion: (ENGB01H3), (ENGB05H3)
Enrolment Limits: 25 per section
Breadth Requirements: Arts, Literature & Language

ENGA03H3 - Introduction to Creative Writing

An introduction to the fundamentals of creative writing, both as practice and as a profession. Students will engage in reading, analyzing, and creating writing in multiple genres, including fiction, poetry, nonfiction, and drama.

Prerequisite: High school English or Creative Writing
Exclusion: ENG289H1
Enrolment Limits: 120
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students who have declared, or are considering, a Major or Minor program in Creative Writing.

ENGA10H3 - Literature and Film for Our Time: Visions and Revisions

An exploration of how literature and film reflect the artistic and cultural concerns that shaped the twentieth century.

Exclusion: ENG140Y
Breadth Requirements: Arts, Literature & Language

ENGA11H3 - Literature and Film for Our Time: Dawn of the Digital

Building on ENGA10H3, this course considers how literature and film responds to the artistic, cultural, and technological changes of the late twentieth and twenty-first centuries.

Exclusion: ENG140Y
Breadth Requirements: Arts, Literature & Language

ENGB02H3 - Effective Writing in the Sciences

This course will provide science students with practical strategies, detailed instructions, and cumulative assignments to help them hone their ability to write clear, coherent, well-reasoned prose for academic and professional purposes. Topics will include scientific journal article formats and standards, peer-review, and rhetorical analysis (of both scientific and lay-science documents).

Exclusion: PCL285H
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in science programs. Additional students will be admitted as space permits.

ENGB04H3 - How to Read a Poem

An introduction to the understanding of poetry in English. By close reading of a wide range of poems from a variety of traditions, students will learn how poets use the resources of patterned language to communicate with readers in uniquely rich and powerful ways.

Exclusion: ENG201Y
Breadth Requirements: Arts, Literature & Language

ENGB06H3 - Canadian Literature to 1900

A study of Canadian literature from pre-contact to 1900. This course explores the literatures of the "contact zone", from Indigenous oral and orature, to European journals of exploration and discovery, to the works of pioneer settlers, to the writing of the post-Confederation period.
Pre-1900 course

Exclusion: ENG252Y
Breadth Requirements: Arts, Literature & Language

ENGB07H3 - Canadian Literature 1900 to Present

A continuation of ENGB06H3 introducing students to texts written from 1900 to the present. Focusing on the development of Canada as an imagined national community, this course explores the challenges of imagining an ethical national community in the context of Canada's ongoing colonial legacy: its multiculturalism; Indigenous and Quebec nationalisms; and recent diasporic and transnational reimaginings of the nation and national belonging.

Exclusion: ENG252Y
Breadth Requirements: Arts, Literature & Language

ENGB08H3 - American Literature to 1860

An examination of Early American literature in historical context from colonization to the Civil War. This introductory survey places a wide variety of genres including conquest and captivity narratives, theological tracts, sermons, and diaries, as well as classic novels and poems in relation to the multiple subcultures of the period.
Pre-1900 course

Exclusion: ENG250Y
Breadth Requirements: Arts, Literature & Language

ENGB09H3 - American Literature from the Civil War to the Present

An introductory survey of major novels, short fiction, poetry, and drama produced in the aftermath of the American Civil War. Exploring texts ranging from *The Adventures of Huckleberry Finn* to Rita Dove's *Thomas and Beulah,* this course will consider themes of immigration, ethnicity, modernization, individualism, class, and community.

Prerequisite: ENGB08H3
Exclusion: ENG250Y
Breadth Requirements: Arts, Literature & Language

ENGB12H3 - Life Writing

Life-writing, whether formal biography, chatty memoir, postmodern biotext, or published personal journal, is popular with writers and readers alike. This course introduces students to life-writing as a literary genre and explores major issues such as life-writing and fiction, life-writing and history, the contract between writer and reader, and gender and life-writing.

Exclusion: ENG232H
Breadth Requirements: Arts, Literature & Language

ENGB14H3 - Twentieth-Century Drama

A study of major plays and playwrights of the twentieth century. This international survey might include turn-of-the-century works by Wilde or Shaw; mid-century drama by Beckett, O'Neill, Albee, or Miller; and later twentieth-century plays by Harold Pinter, Tom Stoppard, Caryl Churchill, Peter Shaffer, August Wilson, Tomson Highway, David Hwang, or Athol Fugard.

Exclusion: ENG340H, ENG341H, (ENG342H), (ENGB11H3), (ENGB13H3), (ENG338Y), (ENG339H)
Breadth Requirements: Arts, Literature & Language

ENGB17H3 - Contemporary Literature from the Caribbean

A study of fiction, drama, and poetry from the West Indies. The course will examine the relation of standard English to the spoken language; the problem of narrating a history of slavery and colonialism; the issues of race, gender, and nation; and the task of making West Indian literary forms.

Exclusion: ENG264H, ENG270Y, (NEW223Y), (ENG253Y)
Breadth Requirements: Arts, Literature & Language

ENGB19H3 - Contemporary Literature from South Asia

A study of literature in English from South Asia, with emphasis on fiction from India. The course will examine the relation of English-language writing to indigenous South Asian traditions, the problem of narrating a history of colonialism and Partition, and the task of transforming the traditional novel for the South Asian context.

Exclusion: ENG270Y, (ENG253Y)
Breadth Requirements: Arts, Literature & Language

ENGB22H3 - Contemporary Literature from Africa

A study of fiction, drama, and poetry from English-speaking Africa. The course will examine the relation of English-language writing to indigenous languages, to orality, and to audience, as well as the issues of creating art in a world of suffering and of de-colonizing the narrative of history.

Exclusion: (ENGC72H3), ENG278Y
Breadth Requirements: Arts, Literature & Language

ENGB25H3 - The Canadian Short Story

A study of the Canadian short story. This course traces the development of the Canadian short story, examining narrative techniques, thematic concerns, and innovations that captivate writers and readers alike.

Exclusion: ENG215H
Breadth Requirements: Arts, Literature & Language

ENGB27H3 - Charting Literary History I

An introduction to the historical and cultural developments that have shaped the study of literature in English before 1700. Focusing on the medieval, early modern, and Restoration periods, this course will examine the notions of literary history and the literary “canon” and explore how contemporary critical approaches impact our readings of literature in English in specific historical and cultural settings.
Pre-1900 course

Exclusion: ENG202Y
Enrolment Limits: 175
Breadth Requirements: Arts, Literature & Language

ENGB28H3 - Charting Literary History II

An introduction to the historical and cultural developments that have impacted the study of literature in English from 1700 to our contemporary moment. This course will familiarize students with the eighteenth century, Romanticism, the Victorian period, Modernism, and Postmodernism, and will attend to the significance of postcolonial and world literatures in shaping the notions of literary history and the literary “canon.”
Pre-1900 course

Recommended Preparation: ENGB27H3
Enrolment Limits: 175
Breadth Requirements: Arts, Literature & Language

ENGB30H3 - Classical Myth and Literature

The goal of this course is to familiarize students with Greek and Latin mythology. Readings will include classical materials as well as important literary texts in English that retell classical myths.
Pre-1900 Course

Exclusion: (ENGC58H3), (ENGC60H3), (ENGC61H3)
Breadth Requirements: Arts, Literature & Language

ENGB31H3 - The Romance: In Quest of the Marvelous

A study of the romance a genre whose episodic tale of marvellous adventures and questing heroes have been both criticized and celebrated. This course looks at the range of a form stretching from Malory and Spenser through Scott and Tennyson to contemporary forms such as fantasy, science fiction, postmodern romance, and the romance novel.
Pre-1900 course

Exclusion: (ENGC31H3)
Breadth Requirements: Arts, Literature & Language

ENGB32H3 - Shakespeare in Context I

An introduction to the poetry and plays of William Shakespeare, this course situates his works in the literary, social and political contexts of early modern England. The main emphasis will be on close readings of Shakespeare's sonnets and plays, to be supplemented by classical, medieval, and renaissance prose and poetry upon which Shakespeare drew.
Pre-1900 course.

Exclusion: ENG220Y, (ENGB10H3)
Breadth Requirements: Arts, Literature & Language

ENGB33H3 - Shakespeare in Context II

A continuation of ENGB32H3, this course introduces students to selected dramatic comedies, tragedies and romances and situates Shakespeare's works in the literary, social and political contexts of early modern England. Our readings will be supplemented by studies of Shakespeare's sources and influences, short theoretical writings, and film excerpts.
Pre-1900 course.

Exclusion: (ENGB10H3), ENG220Y
Recommended Preparation: ENGB32H3
Breadth Requirements: Arts, Literature & Language

ENGB34H3 - The Short Story

An introduction to the short story as a literary form. This course examines the origins and recent development of the short story, its special appeal for writers and readers, and the particular effects it is able to produce.

Exclusion: ENG213H
Breadth Requirements: Arts, Literature & Language

ENGB35H3 - Children's Literature

An introduction to children's literature. This course will locate children's literature within the history of social attitudes to children and in terms of such topics as authorial creativity, race, class, gender, and nationhood.

Pre-1900 course.

Exclusion: ENG234H
Breadth Requirements: Arts, Literature & Language

ENGB37H3 - Popular Literature and Mass Culture

This course considers the creation, marketing, and consumption of popular film and fiction. Genres studied might include bestsellers; detective fiction; mysteries, romance, and horror; fantasy and science fiction; "chick lit"; popular song; pulp fiction and fanzines.

Breadth Requirements: Arts, Literature & Language

ENGB38H3 - The Graphic Novel

A study of extended narratives in the comic book form. This course combines formal analysis of narrative artwork with an interrogation of social, political, and cultural issues in this popular literary form. Works to be studied may include graphic novels, comic book series, and comic book short story or poetry collections.

Exclusion: ENG235H, (ENGC57H3)
Breadth Requirements: Arts, Literature & Language

ENGB39H3 - Tolkien's Middle Ages

This course considers the relationship between modern fantasy and medieval literature through the work of J.R.R. Tolkien. A professor of medieval literature at Oxford, Tolkien used his academic research to develop the mythology, language, and literature of Middle Earth. This course will survey both Tolkien's writing, including the *Lord of the Rings* trilogy, and the medieval poetry that inspired it, from Old English heroic epic to Welsh folklore. Throughout, we will consider how and why the middle ages offer such compelling material for 20th and 21st century fantasy.

Breadth Requirements: Arts, Literature & Language

ENGB50H3 - Women and Literature: Forging a Tradition

An examination of the development of a tradition of women's writing. This course explores the legacy and impact of writers such as Christine de Pizan, Julian of Norwich, Mary Wollstonecraft, Anne Bradstreet, Margaret Cavendish, Jane Austen, Mary Shelley, Emily Dickinson, and Margaret Fuller, and considers how writing by women has challenged and continues to transform the English literary canon.
Pre-1900 course

Exclusion: (ENG233Y)
Breadth Requirements: Arts, Literature & Language

ENGB52H3 - Literature and Science

An exploration of the many intersections between the worlds of literature and science. The focus will be on classic and contemporary works of fiction, non-fiction, poetry and drama that have illuminated, borrowed from or been inspired by the major discoveries and growing cultural significance of the scientific enterprise.

Enrolment Limits: 85
Breadth Requirements: Arts, Literature & Language

ENGB60H3 - Creative Writing: Poetry I

A focused introduction to the writing of poetry. This course will enable students to explore the writing of poetry through reading, discussion, and workshop sessions.

Prerequisite: ENGA03H3 and admission to the Major or Minor program in Creative Writing
Exclusion: (ENG369Y)
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGB61H3 - Creative Writing: Fiction I

A focused introduction to the writing of fiction. This course will enable students to explore the writing of short fiction through reading, discussion, and workshop sessions.

Prerequisite: ENGA03H3 and admission to the Major or Minor program in Creative Writing
Exclusion: (ENG369Y)
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGB63H3 - Creative Writing: Creative Nonfiction I

A focused introduction to the writing of creative non-fiction. This course will enable students to explore the writing of creative non-fiction through reading, discussion, and workshop sessions.

Prerequisite: ENGA03H3 and admission to the Major or Minor program in Creative Writing
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGB70H3 - How to Read a Film

An introduction to the critical study of cinema, including films from a broad range of genres, countries, and eras, as well as readings representing the major critical approaches to cinema that have developed over the past century.

Exclusion: INI115Y
Breadth Requirements: Arts, Literature & Language

ENGB71H3 - Writing About Movies

In this course, students will learn to write critically about movies. We will watch movies and read film criticism, learning to write about film for various audiences and purposes. Forms of writing covered will include movie reviews, blogs, analytical essays, and research-based essays. This is a writing-intensive course that will include revision and peer review. Students will learn how to write academic essays about movies, while also learning about the goals and tools for writing about film for other audiences and venues

Exclusion: CIN369H1
Recommended Preparation: ENGB70H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGB74H3 - The Body in Literature and Film

An interdisciplinary exploration of the body in art, film, photography, narrative and popular culture. This course will consider how bodies are written or visualized as "feminine" or "masculine", as heroic, as representing normality or perversity, beauty or monstrosity, legitimacy or illegitimacy, nature or culture.

Exclusion: (VPAC47H3), (VPHC47H3), (ENGC76H3)
Breadth Requirements: Arts, Literature & Language

ENGB75H3 - Cinema and Modernity I

An investigation of film genres such as melodrama, *film noir,* and the western from 1895 to the present alongside examples of twentieth-century prose and poetry. We will look at the creation of an ideological space and of new mythologies that helped organize the experience of modern life.

Breadth Requirements: Arts, Literature & Language

ENGB76H3 - Cinema and Modernity II

An investigation of film genres such as romance, gothic, and science fiction from 1895 to the present alongside examples of twentieth-century prose and poetry. We will look at the way cinema developed and created new mythologies that helped people organize the experience of modern life.

Exclusion: (ENG238H)
Breadth Requirements: Arts, Literature & Language

ENGC01H3 - Indigenous Literature of Turtle Island (Canada)

This course introduces students to a diverse selection of recent writing by Indigenous authors in Canada/Turtle Island, including novels, poetry, drama, essays, oratory and autobiography. Discussion of literature is grounded in Indigenous literary criticism, which addresses such issues as appropriation of voice, language, land, spirituality, orality, colonialism, gender, hybridity, authenticity, resistance, sovereignty and anti-racism.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC02H3 - Major Canadian Authors

An examination of three or more Canadian writers. This course will draw together selected major writers of Canadian fiction or of other forms. Topics vary from year to year and might include a focused study of major women writers; major racialized and ethnicized writers such as African-Canadian or Indigenous writers; major writers of a particular regional or urban location or of a specific literary period.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC03H3 - Topics in Canadian Fiction

An analysis of Canadian fiction with regard to the problems of representation. Topics considered may include how Canadian fiction writers have responded to and documented the local; social rupture and historical trauma; and the problematics of representation for marginalized societies, groups, and identities.

Prerequisite: Any 6.0 credits
Exclusion: ENG353Y, (ENG216Y)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC04H3 - Creative Writing: Screenwriting

An introduction to the craft of screenwriting undertaken through discussions, readings, and workshop sessions.

Prerequisite: ENGB61H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC05H3 - Creative Writing: Poetry, Experimentation, and Activism

This course is a creative investigation into how, through experimentation, we can change poetry, and how, through poetry, we can change the world. Our explorations are undertaken through writing assignments, discussions, readings, and workshop sessions.

Prerequisite: ENGB60H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC06H3 - Creative Writing: Writing for Comics

An introduction to the writing of comics undertaken through discussions, readings, and workshop sessions.

Prerequisite: ENGB61H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC07H3 - Canadian Drama

A study of major Canadian playwrights with an emphasis on the creation of a national theatre, distinctive themes that emerge, and their relation to regional and national concerns. This course explores the perspectives of Québécois, feminist, Native, queer, ethnic, and Black playwrights who have shaped Canadian theatre.

Prerequisite: Any 6.0 credits or [THRB20H3/(VPDB10H3) and THRB21H3/(VPDB11H3)]
Exclusion: ENG352H, (ENG223H)
Recommended Preparation: ENGA01H3 or ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC08H3 - Special Topics in Creative Writing I

This multi-genre creative writing course, designed around a specific theme or topic, will encourage interdisciplinary practice, experiential adventuring, and rigorous theoretical reflection through readings, exercises, field trips, projects, etc.

Prerequisite: ENGB60H3 or ENGB61H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC09H3 - Canadian Poetry

A study of contemporary Canadian poetry in English, with a changing emphasis on the poetry of particular time-periods, regions, and communities. Discussion will focus on the ways poetic form achieves meaning and opens up new strategies for thinking critically about the important social and political issues of our world.

Prerequisite: Any 6.0 credits
Exclusion: ENG354Y
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC10H3 - Studies in Shakespeare

An in-depth study of selected plays from Shakespeare's dramatic corpus combined with an introduction to the critical debates within Shakespeare studies. Students will gain a richer understanding of Shakespeare's texts and their critical reception.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG336H
Recommended Preparation: [ENGA01H3 and ENGA02H3 and ENGB27H3] or ENGB32H3 or ENGB33H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC11H3 - Poetry and Popular Culture

Poetry is often seen as distant from daily life. We will instead see how poetry is crucial in popular culture, which in turn impacts poetry. We will read such popular poets as Ginsberg and Plath, look at poetry in film, and consider song lyrics as a form of popular poetry.

Prerequisite: Any 6.0 credits
Exclusion: (ENGA18H3)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC12H3 - Individualism and Community in American Literature

An exploration of the tension in American literature between two conflicting concepts of self. We will examine the influence on American literature of the opposition between an abstract, "rights-based," liberal-individualist conception of the self and a more traditional, communitarian sense of the self as determined by inherited regional, familial, and social bonds.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC13H3 - Ethnic Traditions in American Literature

A survey of the literature of Native Peoples, Africans, Irish, Jews, Italians, Latinos, and South and East Asians in the U.S, focusing on one or two groups each term. We will look at how writers of each group register the affective costs of the transition from "old-world" communalism to "new-world" individualism.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC14H3 - Black Canadian Literature

A study of the diverse and vibrant forms of literary expression that give voice to the Black experience in Canada, with changing emphasis on authors, time periods, Black geographies, politics and aesthetics. The range of genres considered may include the slave narrative, memoir, historical novel, Afrofuturism and “retrospeculative” fiction, poetry, drama, as well as the performance cultures of spoken word, dub, rap, DJing and turntablism.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB06H3 and ENGB07H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC15H3 - Introduction to Theory and Criticism

A study of selected topics in literary criticism. Schools of criticism and critical methodologies such as New Criticism, structuralism, poststructuralism, Marxism, psychoanalysis, gender and sexuality studies, New Historicism, and postcolonialism will be covered, both to give students a roughly century-wide survey of the field and to provide them with a range of models applicable to their own critical work as writers and thinkers. Recommended for students planning to pursue graduate study in English literature.

Prerequisite: Any 6.0 credits
Exclusion: ENG280H, (ENG267H)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC16H3 - The Bible and Literature I

A literary analysis of the Hebrew Bible (Christian Old Testament) and of texts that retell the stories of the Bible, including the Quran. We will study Biblical accounts of the creation, the fall of Adam and Eve, Noah's flood, Abraham's binding of Isaac, the Exodus from Egypt, and the Judges, Prophets, and Kings of Israel as works of literature in their own right, and we will study British, American, European, African, Caribbean, and Indigenous literary texts that, whether inspired by or reacting against Biblical narratives, retell them.
Pre-1900 course.

Prerequisite: Any 6.0 credits
Exclusion: (ENGB42H3), (ENG200Y)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC17H3 - The Bible and Literature II

A literary analysis of the New Testament and the ways that the stories of Jesus have been reworked in British, American, European, African, Caribbean, and Indigenous literature and visual art. The Gospels, the Acts of the Apostles, and the Book of Revelation will be considered as literature, and we will study later literary texts that, whether inspired by or reacting against Biblical narratives, retell them.
Pre-1900 course.

Prerequisite: Any 6.0 credits
Exclusion: (ENGB43H3), (ENG200Y)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC18H3 - Colonial and Postcolonial Literature

Over the course of five centuries, European empires changed the face of every continent. The present world bears the traces of those empires in the form of nation-states, capitalism, population transfers, and the spread of European languages. We will consider how empire and resistance to empire have been imagined and narrated in a variety of texts.

Prerequisite: Any 6.0 credits
Exclusion: ENG270Y
Recommended Preparation: ENGA01H3 and ENGA02H3
Breadth Requirements: Arts, Literature & Language

ENGC19H3 - Transnational Literature

The world is increasingly interrelated - economically, digitally, and culturally. Migrants and capitalists move across borders. So do criminals and terrorists. Writers, too, travel between countries; novels and films are set in various locales. How have writers had to re-invent generic conventions to imagine the world beyond the nation and the new links among distant places?

Prerequisite: Any 6.0 credits
Exclusion: ENG370H
Recommended Preparation: ENGA01H3 and ENGA02H3
Breadth Requirements: Arts, Literature & Language

ENGC21H3 - The Victorian Novel

A study of major novels in the Victorian period. Authors studied might include Charles Dickens, the Bronte sisters, George Eliot, and Thomas Hardy. Central to the study of the novel in the period are concerns about social and political justice, historical awareness, personal perspective and narration, and the development of realism.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG324Y
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC22H3 - Victorian Popular Fiction

A study of popular fiction during the Victorian period. This course examines the nineteenth-century emergence of genres of mass-market fiction, which remain popular today, such as historical romance, mystery and detective fiction, imperial adventure, fantasy, and science fiction.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG324Y
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC23H3 - Fantasy and the Fantastic in Literature and the Other Arts

A study of fantasy and the fantastic from 1800 to the present. Students will consider various theories of the fantastic in order to chart the complex genealogy of modern fantasy across a wide array of literary genres (fairy tales, poems, short stories, romances, and novels) and visual arts (painting, architecture, comics, and film).

Prerequisite: Any 6.0 credits
Exclusion: ENG239H
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language
Note: Preference will be given to students pursuing any program in English.

ENGC24H3 - Creative Writing: The Art of the Personal Essay

This writing workshop is based on the art and craft of the personal essay, a form of creative nonfiction characterized by its commitment to self-exploration and experiment. Students will submit their own personal essays for workshop, and become acquainted with the history and contemporary resurgence of the form.

Prerequisite: ENGB63H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC25H3 - Victorian Poetry and Prose

An introduction to the poetry and nonfiction prose of the Victorian period, 1837-1901. Representative authors are studied in the context of a culture in transition, in which questions about democracy, social inequality, the rights of women, national identity, imperialism, and science and religion are prominent.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: (ENGB45H3)
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC26H3 - Drama: Tragedy

An exploration of major dramatic tragedies in the classic and English tradition. European philosophers and literary critics since Aristotle have sought to understand and define the genre of tragedy, one of the oldest literary forms in existence. In this course, we will read representative works of dramatic tragedy and investigate how tragedy as a genre has evolved over the centuries.
Pre-1900 course

Prerequisite: Any 6.0 credits or [VPDB10H3 and VPDB11H3]
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC27H3 - Drama: Comedy

An historical exploration of comedy as a major form of dramatic expression. Comedy, like its more august counterpart tragedy, has been subjected to centuries of theoretical deliberation about its form and function. In this course, we will read representative works of dramatic comedy and consider how different ages have developed their own unique forms of comedy.
Pre-1900 course

Prerequisite: Any 6.0 credits or [THRB20H3/(VPDB10H3) and THRB21H3/(VPDB11H3)]
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC28H3 - The Fairy Tale

A study of fairy tales in English since the eighteenth century. Fairy tales have been a staple of children's literature for three centuries, though they were originally created for adults. In this course, we will look at some of the best-known tales that exist in multiple versions, and represent shifting views of gender, race, class, and nationality over time. The course will emphasize the environmental vision of fairy tales, in particular, the uses of natural magic, wilderness adventures, animal transformations, and encounters with other-than-human characters.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC29H3 - Chaucer

Selections from *The Canterbury Tales* and other works by the greatest English writer before Shakespeare. In studying Chaucer's medieval masterpiece, students will encounter a variety of tales and tellers, with subject matter that ranges from broad and bawdy humour through subtle social satire to moral fable.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG300Y
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB27H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC30H3 - Studies in Medieval Literature

A study of selected medieval texts by one or more authors.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG311H
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB27H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC33H3 - Deceit, Dissent, and the English Civil Wars, 1603-1660

A study of the poetry, prose, and drama written in England between the death of Queen Elizabeth in 1603 and the Restoration of the monarchy in 1660. This course will examine the innovative literature of these politically tumultuous years alongside debates concerning personal and political sovereignty, religion, censorship, ethnicity, courtship and marriage, and women's authorship.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG304Y
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB27H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC34H3 - Early Modern Women and Literature, 1500-1700

A focused exploration of women's writing in the early modern period. This course considers the variety of texts produced by women (including closet drama, religious and secular poetry, diaries, letters, prose romance, translations, polemical tracts, and confessions), the contexts that shaped those writings, and the theoretical questions with which they engage.
Pre-1900 course

Prerequisite: Any 6.0 credits
Recommended Preparation: [ENGA01H3 and ENGA02H3] or ENGB27H3 or ENGB50H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC35H3 - Imagined Communities in Early Modern England, 1500-1700

A study of the real and imagined multiculturalism of early modern English life. How did English encounters and exchanges with people, products, languages, and material culture from around the globe redefine ideas of national, ethnic, and racial community? In exploring this question, we will consider drama and poetry together with travel writing, language manuals for learning foreign tongues, costume books, and maps.
Pre-1900 course

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB27H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC36H3 - Literature and Culture, 1660-1750

Studies in literature and literary culture during a turbulent era that was marked by extraordinary cultural ferment and literary experimentation. During this period satire and polemic flourished, Milton wrote his great epic, Behn her brilliant comedies, Swift his bitter attacks, and Pope his technically balanced but often viciously biased poetry.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG305H
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC37H3 - Literature and Culture, 1750-1830

An exploration of literature and literary culture during the end of the eighteenth and beginning of the nineteenth centuries. We will trace the development of a consciously national culture, and birth of the concepts of high, middle, and low cultures. Authors may include Johnson, Boswell, Burney, Sheridan, Yearsley, Blake, and Wordsworth.
Pre-1900 course

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC38H3 - Novel Genres: Fiction, Journalism, News, and Autobiography, 1640-1750

An examination of generic experimentation that began during the English Civil Wars and led to the novel. We will address such authors as Aphra Behn and Daniel Defoe, alongside news, ballads, and scandal sheets: and look at the book trade, censorship, and the growth of the popular press.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG322Y
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC39H3 - The Early Novel in Context, 1740-1830

A contextual study of the first fictions that contemporaries recognized as being the novel. We will examine the novel in relation to its readers, to neighbouring genres such as letters, nonfiction travel writing, and conduct manuals, and to culture more generally. Authors might include Richardson, Fielding, Sterne, Burney, Austen and others.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG322Y
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC40H3 - Medieval Life Writing

From Augustine's *Confessions* to Dante's *New Life,* medieval writers developed creative means of telling their life stories. This course tracks medieval life-writing from Augustine and Dante to later figures such as Margery Kempe—beer brewer, mother of fourteen, and self-proclaimed saint—Thomas Hoccleve, author of the first description of a mental breakdown in English literature, and Christian convert to Islam Anselmo Turmeda/'Abd Allāh al-Turjumān. In these texts, life writing is used for everything from establishing a reputation to recovering from trauma to religious polemic. The course will also explore how medieval life writing can help us to understand 21st century practices of self-representation, from selfies to social media.

Pre-1900 course.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB27H3
Breadth Requirements: Arts, Literature & Language

ENGC41H3 - Video Games: Exploring the Virtual Narrative

How do video games connect to English literature? In what ways can they be "read" and assessed as storytelling texts? How do video game narratives reflect historical, cultural, and social concerns? Although active playing will be a required part of the course, students of all video game experience levels are welcome.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language

ENGC42H3 - Romanticism

A study of the Romantic Movement in European literature, 1750-1850. This course investigates the cultural and historical origins of the Romantic Movement, its complex definitions and varieties of expression, and the responses it provoked in the wider culture. Examination of representative authors such as Goethe, Rousseau, Wollstonecraft, Wordsworth, Coleridge, Blake, P. B. Shelley, Keats, Byron and M. Shelley will be combined with study of the philosophical and historical backgrounds of Romanticism.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: ENG308Y
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC43H3 - Nineteenth-Century Literature and Contemporary Culture

An investigation of how nineteenth-century literature is translated into our contemporary world through art forms like music, architecture, film, television, graphic novels, or online and social media. What is it that makes us keep returning to the past, and how does each adaptation re-make the original into something new and relevant?
Pre-1900 course.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB27H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC44H3 - Self and Other in Literature and Film

A study of the relation between self and other in narrative fiction. This course will examine three approaches to the self-other relation: the moral relation, the epistemological relation, and the functional relation. Examples will be chosen to reflect engagements with gendered others, with historical others, with generational others, and with cultural and national others.

Prerequisite: Any 6.0 credits
Recommended Preparation: [ENGA01H3 and ENGA02H3] or ENGB70H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC45H3 - Queer Literature and Theory

This course focuses on queer studies in a transhistorical context. It serves as an introduction to queer theory and culture, putting queer theory into conversation with a range of literary texts as well as other forms of media and culture. This course might explore contemporary LGBTQ2+ literature, media and popular culture; the history of queer theory; and literary work from early periods to recover queer literary histories.

Prerequisite: Any 6.0 credits
Exclusion: ENG273Y1, ENG295H5
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC46H3 - Law and Literature

An examination of how the law and legal practices have been imagined in literature, including the foundations of law, state constitutions, rule of law, rights, trials and judgments, ideas of justice, natural law, enforcement, and punishment. We will examine Western and non-Western experiences of the law, legal documents and works of literature. Authors may include Sophocles, Aeschylus, Shakespeare, Melville, Dostoyevsky, Kafka, Achebe, Soyinka, Borges, Shamsie, R. Wright, Silko.

Prerequisite: Any 6.0 credits
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC47H3 - Modernist Poetry

A study of poetry written roughly between the World Wars. Poets from several nations may be considered. Topics to be treated include Modernist difficulty, formal experimentation, and the politics of verse. Literary traditions from which Modernist poets drew will be discussed, as will the influence of Modernism on postmodern writing.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGB04H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC48H3 - Satire

An investigation of the literatures and theories of the unthinkable, the reformist, the iconoclastic, and the provocative. Satire can be conservative or subversive, corrective or anarchic. This course will address a range of satire and its theories. Writers range from Juvenal, Horace, Lucian, Erasmus, Donne, Jonson, Rochester, Dryden, Swift, Pope, Gay, Haywood, and Behn to Pynchon, Nabokov and Atwood.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: (ENGD67H3)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC50H3 - Studies in Contemporary American Fiction

Developments in American fiction from the end of the 1950's to the present: the period that produced James Baldwin, Saul Bellow, Philip Roth, John Updike, Norman Mailer, Ann Beatty, Raymond Carver, Don DeLillo, Toni Morrison, Maxine Hong Kingston, and Leslie Marmon Silko, among others.

Prerequisite: Any 6.0 credits
Exclusion: ENG365H, (ENG361H)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC51H3 - Contemporary Arab Women Writers

A study of Arab women writers from the late nineteenth century to the present. Their novels, short stories, essays, poems, and memoirs invite us to rethink western perceptions of Arab women. Issues of gender, religion, class, nationalism, and colonialism will be examined from the perspective of Arab women from both the Arab world and North America.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC54H3 - Gender and Genre

An analysis of how gender and the content and structure of poetry, prose, and drama inform each other. Taking as its starting point Virginia Woolf's claim that the novel was the genre most accessible to women because it was not entirely formed, this course will consider how women writers across historical periods and cultural contexts have contributed to specific literary genres and how a consideration of gender impacts our interpretation of literary texts.

Prerequisite: Any 6.0 credits
Exclusion: (ENGB51H3)
Recommended Preparation: ENGA01H3 and ENGA02H3
Breadth Requirements: Arts, Literature & Language

ENGC56H3 - Literature and Media: From Page to Screen

An exploration of the relationship between written literature and film and television. What happens when literature influences film and vice versa, and when literary works are recast as visual media (including the effects of rewriting, reproduction, adaptation, serialization and sequelization)?

Prerequisite: Any 6.0 credits
Recommended Preparation: [ENGA01H3 and ENGA02H3] or ENGB70H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC59H3 - Literature and the Environment

This course introduces students to ecocriticism (the study of the relationship between literature and environment). The course is loosely structured around several focused topics: Land, Sustainability, Resilience, Natural and Unnatural Disasters, Diversity and Discomfort, Public and Private Spaces, Nostalgia, Activism. Students will be introduced to environmental pedagogies and alternative ways of knowing, including embodied learning. We will spend quite a bit of time outdoors especially during the first six weeks of the course.

Prerequisite: Any 6.0 credits or [SOCB58H3; and an additional 4.0 credits; and registration in the Minor in Culture, Creativity, and Cities]
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC69H3 - Gothic Literature

A study of the Gothic tradition in literature since 1760. Drawing on texts such as Horace Walpole's *The Castle of Otranto,* Jane Austen's *Northanger Abbey,* Henry James' *The Turn of the Screw,* and Anne Rice's *Interview with the Vampire,* this course will consider how the notion of the "Gothic" has developed across historical periods and how Gothic texts represent the supernatural, the uncanny, and the nightmares of the unconscious mind. Pre-1900 course

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language
Note: Preference will be given to students pursuing an English program

ENGC70H3 - The Immigrant Experience in Literature to 1980

An examination of twentieth-century literature, especially fiction, written out of the experience of people who leave one society to come to another already made by others. We will compare the literatures of several ethnic communities in at least three nations, the United States, Britain, and Canada.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC71H3 - The Immigrant Experience in Literature since 1980

A continuation of ENGC70H3, focusing on texts written since 1980.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3 and ENGC70H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC75H3 - Freaks and Geeks: Children in Contemporary Film and Media

This course will look at the depiction of childhood and youth in contemporary film and television, especially focusing on films that feature exceptional, difficult, or magical children. The course will explore how popular culture represents children and teens, and how these films reflect cultural anxieties about parenting, childhood, technology, reproduction, disability and generational change. Films and television shows may include: Mommy, The Babadook, Boyhood, Girlhood, A Quiet Place, We Need to Talk About Kevin, The Shining, Looper, Elephant, Ready Player One, Stranger Things, Chappie, Take Shelter, and Moonlight.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC78H3 - Dystopian Visions in Fiction and Film

An exploration of negative utopias and post-apocalyptic worlds in film and literature. The course will draw from novels such as *1984*, *Brave New World*, *Clockwork Orange*, and *Oryx and Crake*, and films such as *Metropolis, Mad Max*, *Brazil,* and *The Matrix*. Why do we find stories about the world gone wrong so compelling?

Prerequisite: Any 6.0 credits
Recommended Preparation: [ENGA01H3 and ENGA02H3] or ENGB70H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language

ENGC79H3 - Above and Beyond: Superheroes in Fiction and Film

This course will explore the literary history and evolution of the superhero, from its roots in the works of thinkers such as Thomas Carlyle and Friedrich Nietzsche to the wartime birth of the modern comic book superhero to the contemporary pop culture dominance of transmedia experiments like the “universes” created by Marvel and DC. We will explore the superhero in various media, from prose to comics to film and television, and we will track the superhero alongside societal and cultural changes from the late 19th century to the present.

Prerequisite: Any 6.0 credits
Breadth Requirements: Arts, Literature & Language

ENGC80H3 - Modernist Narrative

Advanced study of a crucial period for the development of new forms of narrative and the beginnings of formal narrative theory, in the context of accelerating modernity.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA01H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC82H3 - Topics in Cinema Studies

A variable theme course that will feature different theoretical approaches to Cinema: feminist, Marxist, psychoanalytic, postcolonial, and semiotic. Thematic clusters include "Madness in Cinema," and "Films on Films."

Prerequisite: Any 6.0 credits
Recommended Preparation: [ENGA01H3 and ENGA02H3] or ENGB70H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC83H3 - World Cinema

A study of Non-Western films. This course analyzes a selection of African, Asian, and Middle Eastern films both on their own terms and against the backdrop of issues of colonialism and globalization.

Prerequisite: Any 6.0 credits or [SOCB58H3; and an additional 4.0 credits; and registration in the Minor in Culture, Creativity, and Cities]
Recommended Preparation: [ENGA01H3 and ENGA02H3] or ENGB70H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC84H3 - Cinema and Migration

This course introduces students to cinema by, and about, immigrants, refugees, migrants, and exiles. Using a comparative world cinema approach, the course explores how the aesthetics and politics of the cinema of migration challenge theories of regional, transnational, diasporic, and global cinemas.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Breadth Requirements: Arts, Literature & Language

ENGC86H3 - Creative Writing: Poetry II

An intensive study of the writing of poetry through a selected theme, topic, or author. The course will undertake its study through discussions, readings, and workshop sessions.

Prerequisite: ENGB60H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC87H3 - Creative Writing: Fiction II

An intensive study of the writing of fiction through a selected theme, topic, or author. The course will undertake its study through discussions, readings, and workshop sessions.

Prerequisite: ENGB61H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC88H3 - Creative Writing: Creative Nonfiction II

An advanced study of the craft of creative non-fiction. Through in-depth discussion, close reading of exceptional texts and constructive workshop sessions, students will explore special topics in the genre such as: fact versus fiction, writing real people, the moral role of the author, the interview process, and how to get published. Students will also produce, workshop and rewrite an original piece of long-form creative non-fiction and prepare it for potential publication.

Prerequisite: ENGB63H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC89H3 - Creative Writing and Performance

This course connects writers of poetry and fiction, through discussion and workshop sessions, with artists from other disciplines in an interdisciplinary creative process, with the aim of having students perform their work.

Prerequisite: Any B-level course in Creative Writing; students in performance-based disciplines such as Theatre and Performance (THR) and Music and Culture (VPM) may be admitted with the permission of the instructor.
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGC90H3 - Topics in Classical Myth and Literature

This course pursues the in-depth study of a small set of myths. We will explore how a myth or mythological figure is rendered in a range of literary texts ancient and modern, and examine each text as both an individual work of art and a strand that makes up the fabric of each given myth.
Pre-1900 course

Prerequisite: Any 6.0 credits
Exclusion: CLAC01H3, (ENGC58H3), (ENGC60H3), (ENGC61H3)
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC91H3 - American Realisms

An exploration of late nineteenth- and early twentieth-century American realism and naturalism in literary and visual culture. This course will explore the work of writers such as Henry James, William Dean Howells, Edith Wharton, Charles Chesnutt, Stephen Crane, Frank Norris, Kate Chopin, and Theodore Dreiser alongside early motion pictures, photographs, and other images from the period.

Prerequisite: Any 6.0 credits
Recommended Preparation: ENGA01H3 and ENGA02H3
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGC92H3 - Film Theory

An introduction to the major theorists and schools of thought in the history of film theory, from the early 20th century to our contemporary moment. What is our relationship to the screen? How do movies affect our self-image? How can we think about the power and politics of the moving image? We will think about these questions and others by watching movies in conjunction with theoretical texts touching on the major approaches to film theory over the last century.

Prerequisite: Any 6.0 credits
Exclusion: CIN301Y
Recommended Preparation: ENGA01H3 and ENGA02H3 and [ENGB70H3 or one prior film course]
Enrolment Limits: 45
Breadth Requirements: Arts, Literature & Language

ENGD02Y3 - Teaching Academic Writing: Theories, Methods and Service Learning

This course explores the theories and practices of teaching academic writing, mostly in middle and secondary school contexts as well as university writing instruction and/or tutoring in writing. Through its 60-hour service-learning component, the course also provides student educators with the practical opportunities for the planning and delivering of these instruction techniques in different teaching contexts.

Prerequisite: Any 5.0 credits and [ENGA01H3 and ENGA02H3]
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD03H3 - Topics in Contemporary Literary Theory

A study of selected topics in recent literary theory. Emphasis may be placed on the oeuvre of a particular theorist or on the impact of a given theoretical movement; in either case, the relation of theory to literary critical practice will be considered , as will the claims made by theory across a range of aesthetic and political discourses and in response to real world demands. Recommended for students planning to pursue graduate study in English literature.

Prerequisite: 2 C-level courses in English.
Recommended Preparation: ENGC15H3
Enrolment Limits: 22

ENGD05H3 - Diasporic-Indigenous Relations on Turtle Island

In this course we consider the possibilities opened up by literature for thinking about the historical and ongoing relations between Indigenous and non-Indigenous people on the northern part of Turtle Island (the Iroquois, Anishinabek and Lenape name for North America). How does literature written by both diasporic and Indigenous writers call upon readers to act, identify, empathize and become responsible to history, to relating, and to what effect? Students will have the opportunity to consider how literature can help address histories of colonial violence by helping us to think differently about questions about land, justice, memory, community, the environment, and the future of living together, in greater balance, on Turtle Island.

Prerequisite: 1.0 credit at the C-level in ENG courses
Recommended Preparation: ENGB06H3 and ENGC01H3
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD07H3 - Studies in Postmodern Poetry

The study of a poet or poets writing in English after 1950. Topics may include the use and abuse of tradition, the art and politics of form, the transformations of an oeuvre, and the relationship of poetry to the individual person and to the culture at large.

Prerequisite: 2 C-level courses in English
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD08H3 - Topics in African Literature

This advanced seminar will provide intensive study of a selected topic in African literature written in English; for example, a single national literature, one or more authors, or a literary movement.

Prerequisite: 2 C-level courses in English or [AFSA01H3 and [ENGB22H3 or (ENGC72H3)]]
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD12H3 - Topics in Life Writing

A detailed study of some aspect or aspects of life-writing. Topics may include life-writing and fiction, theory, criticism, self, and/or gender. Can count as a pre-1900 course depending on the topic.

Prerequisite: 2 C-level courses in English
Enrolment Limits: 22

ENGD13H3 - Rap Poetics

An intensive study of rhetoric, genre, meaning, and form in rap lyrics. The three-decade-plus recorded history of this popular poetry will be discussed in rough chronological order. Aspects of African-American poetics, as well as folk and popular song, germane to the development of rap will be considered, as will narrative and vernacular strategies in lyric more generally; poetry's role in responding to personal need and to social reality will also prove relevant.

Prerequisite: 1.0 credit at the C- level in ENG courses
Exclusion: (ENGC73H3), (ENGD63H3)
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD14H3 - Topics in Early Modern English Literature and Culture

An advanced inquiry into critical questions relating to the development of sixteenth- and seventeenth-century English literature and culture. Focus may include the intensive study of an author, genre, or body of work.
Pre-1900 course

Prerequisite: 1.0 credit at the C-level in ENG courses
Recommended Preparation: ENGC10H3 or ENGC32H3 or ENGC33H3 or ENGC34H3 or ENGC35H3
Enrolment Limits: 22

ENGD18H3 - Topics in the Long Eighteenth Century, 1660-1830

Topics in the literature and culture of the long eighteenth century. Topics vary from year to year and might include a study of one or more authors, or the study of a specific literary or theatrical phenomenon.
Pre-1900 course

Prerequisite: 2 C-level courses in English
Recommended Preparation: [one of ENGC37H3 or ENGC38H3 or ENGC39H3]
Enrolment Limits: 22

ENGD19H3 - Theoretical Approaches to Early Modern English Literature and Culture

An in-depth study of sixteenth- and seventeenth-century literature together with intensive study of the theoretical and critical perspectives that have transformed our understanding of this literature.
Pre-1900 course

Prerequisite: 1.0 credit at the C-level in ENG courses
Recommended Preparation: ENGC10H3 or ENGC32H3 or ENGC33H3 or ENGC34H3 or ENGC35H3
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD22H3 - Special Topics in Creative Writing II

This multi-genre creative writing course, designed around a specific theme or topic, will encourage interdisciplinary practice, experiential adventuring, and rigorous theoretical reflection through readings, exercises, field trips, projects, etc.

Prerequisite: [0.5 credit at the B-level in Creative Writing] and [0.5 credit at the C-level in Creative Writing]
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGD26Y3 - Independent Studies in Creative Writing: Poetry

Advanced study of the writing of poetry for students who have excelled at the introductory and intermediate levels. Admission by portfolio. The portfolio should contain 15-25 pages of your best poetry and a 500-word description of your project. Please email your portfolio to creative-writing@utsc.utoronto.ca by the last Friday of April (for Independent Studies beginning in either the Fall or Winter semesters).

Prerequisite: ENGB60H3 and ENGC86H3 and 1 other C-level Creative Writing course and permission of the instructor.
Note: Students may normally count no more than 1.0 full credit of D-level independent study towards an English program.

ENGD27Y3 - Independent Studies in Creative Writing: Prose

Advanced study of the writing of fiction or creative nonfiction for students who have excelled at the introductory and intermediate levels. Admission by portfolio. The portfolio should contain 30-40 pages of your best fiction or creative nonfiction and a 500-word description of your project. Please email your portfolio to creative-writing@utsc.utoronto.ca by the last Friday of April (for Independent Studies beginning in either the Fall or Winter semesters).

Prerequisite: [ENGB61H3 or ENGB63H3] and [ENGC87H3 or ENGC88H3] and [1 other C-level Creative Writing course] and permission of the instructor
Exclusion: (ENGD27H3)
Note: Students may normally count no more than 1.0 full credit of D-level independent study towards an English program.

ENGD28Y3 - Independent Studies in Creative Writing: Open Genre

Advanced study of the writing of a non poetry/prose genre (for example, screenwriting, comics, etc.), or a multi-genre/multi-media project, for students who have excelled at the introductory and intermediate levels. Admission by portfolio. The portfolio should contain 20-30 pages of your best work composed in your genre of choice and a 500-word description of your project. Please email your portfolio to creative-writing@utsc.utoronto.ca by the last Friday of April (for Independent Studies beginning in either the Fall or Winter semesters).

Prerequisite: [[ENGB60H3 and ENGC86H3] or [ENGB61H3 and ENGC87H3]] and 1 other C-level Creative Writing course and permission of the instructor.
Exclusion: (ENGD28H3)
Note: Students may normally count no more than 1.0 full credit of D-level independent study towards an English program.

ENGD29H3 - Chaucer's Early Works

Advanced study of Chaucer's early writings, from *The Book of the Duchess* to *Troilus and Criseyde*. Consisting of dream visions, fantastic journeys, and historical fictions, these works all push beyond the boundaries of everyday experience, depicting everything from the lifestyles of ancient Trojans to a flight through the stars. This course will explore the forms and literary genres that Chaucer uses to mediate between the everyday and the extraordinary. We will also consider related problems in literary theory and criticism, considering how scholars bridge the gap between our own time and the medieval past.

Pre-1900 course.

Prerequisite: 1.0 credit at the C-level in ENG courses
Recommended Preparation: ENGC29H3 or ENGC30H3 or ENGC40H3
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language
Note: Texts will be read in Middle English.

ENGD30H3 - Topics in Medieval Literature

Topics in the literature and culture of the medieval period. Topics vary from year to year and might include a study of one or more authors.
Pre-1900 course

Prerequisite: 2 C-level courses in English
Recommended Preparation: ENGC29H3 or ENGC30H3
Enrolment Limits: 22

ENGD42H3 - Studies in Major Modernist Writers

Advanced study of a selected Modernist writer or small group of writers. The course will pursue the development of a single author's work over the course of his or her entire career or it may focus on a small group of thematically or historically related writers.

Prerequisite: 2 C-level courses in English.
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD43H3 - Topics in Romanticism, 1750-1850

Topics in the literature and culture of the Romantic movement. Topics vary from year to year and may include Romantic nationalism, the Romantic novel, the British 1790s, or American or Canadian Romanticism.
Pre-1900 course

Prerequisite: 2 C-level courses in English
Recommended Preparation: ENGC42H3
Enrolment Limits: 22

ENGD48H3 - Studies in Major Victorian Writers

Advanced study of a selected Victorian writer or small group of writers. The course will pursue the development of a single author's work over the course of his or her entire career or it may focus on a small group of thematically or historically related writers.
Pre-1900 course

Prerequisite: 1.0 credit at the C-level in ENG courses
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD50H3 - Fake Friends and Artificial Intelligence: the Human-Robot Relationship in Literature and Culture

This course will explore the portrayal of the human-robot relationship in conjunction with biblical and classical myths. The topic is timely in view of the pressing and increasingly uncanny facets of non-divine, non-biological creation that attend the real-world production and marketing of social robots. While the course looks back to early literary accounts of robots in the 1960s, it concentrates on works written in or after the 1990s. The course aims to analyze how a particular narrative treatment of the robot-human relationship potentially alters our understanding of its mythical intertext and, by extension, notions of divinity, humanity, gender, animality, disability, and relations of kinship and care.

Prerequisite: 1.0 credit at the C- level in ENG courses
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD52H3 - Cinema: The Auteur Theory

An exploration of the genesis of auteur theory. By focusing on a particular director such as Jane Campion, Kubrick, John Ford, Cronenberg, Chaplin, Egoyan, Bergman, Godard, Kurosawa, Sembene, or Bertolucci, we will trace the extent to which a director's vision can be traced through their body of work.

Prerequisite: 2 C-level courses in English
Exclusion: INI374H, INI375H
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD53H3 - Studies in Popular Genres

Advanced study of a genre or genres not typically categorized as “literature”, including different theoretical approaches and/or the historical development of a genre. Possible topics might include science fiction, fantasy, gothic, horror, romance, children’s or young adult fiction, or comics and graphic novels.

Prerequisite: 2 C-level courses in English
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD54H3 - Comparative Approaches to Literature and Culture

An in-depth examination of a theme or topic though literary texts, films, and/or popular culture. This seminar course will be organized around a particular topic and will include texts from a variety of traditions. Topics might include, for example, “Disability and Narrative” or “Technology in Literature and Popular Culture.”

Prerequisite: 2 C-level courses in English
Breadth Requirements: Arts, Literature & Language

ENGD55H3 - Literature, Politics, Revolution

This advanced seminar will focus on a selected writer or a small group of writers whose literary work engages with themes of politics, revolution and/or resistance. The course will pursue the development of a single author's work over their entire career, or the development of a small group of thematically or historically related writers, and may include film and other media. Topics will vary year to year.

Prerequisite: 2 C-level courses in English
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD57H3 - Studies in Major Canadian Writers

Advanced study of a selected Canadian writer or small group of writers. The course will pursue the development of a single author's work over the course of his or her entire career or it may focus on a small group of thematically or historically related writers.

Prerequisite: 2 C-level courses in English
Exclusion: (ENGD51H3), (ENGD88H3)
Recommended Preparation: ENGB06H3 or ENGB07H3
Enrolment Limits: 22

ENGD58H3 - Topics in Canadian Literature

Topics in the literature and culture of Canada. Topics vary from year to year and may include advanced study of ethics, haunting, madness, or myth; or a particular city or region.

Prerequisite: 2 C-level courses in English
Exclusion: (ENGD51H3), (ENGD88H3)
Recommended Preparation: ENGB06H3 or ENGB07H3
Enrolment Limits: 22

ENGD59H3 - Topics in American Poetry

This seminar will usually provide advanced intensive study of a selected American poet each term, following the development of the author's work over the course of his or her entire career. It may also focus on a small group of thematically or historically related poets.

Prerequisite: 2 C-level courses in English
Recommended Preparation: ENGB08H3
Enrolment Limits: 22

ENGD60H3 - Topics in American Prose

This seminar course will usually provide advanced intensive study of a selected American prose-writer each term, following the development of the author's work over the course of his or her entire career. It may also focus on a small group of thematically or historically related prose-writers.

Prerequisite: 2 C-level courses in English
Recommended Preparation: ENGB09H3
Enrolment Limits: 22

ENGD62H3 - Topics in Postcolonial Literature and Film

An exploration of multicultural perspectives on issues of power, perception, and identity as revealed in representations of imperialism and colonialism from the early twentieth century to the present.

Prerequisite: 2 C-level courses in English.
Enrolment Limits: 22

ENGD68H3 - Topics in Literature and Religion

Topics might explore the representation of religion in literature, the way religious beliefs might inform the production of literature and literary values, or literature written by members of a particular religious group.

Prerequisite: 2 C-level courses in English
Enrolment Limits: 22

ENGD71H3 - Studies in Arab North-American Literature

A study of Arab North-American writers from the twentieth century to the present. Surveying one hundred years of Arab North-American literature, this course will examine issues of gender, identity, assimilation, and diaspora in poetry, novels, short stories, autobiographies and nonfiction.

Prerequisite: 2 C-level courses in English
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD80H3 - Women and Canadian Writing

A study of the remarkable contribution of women writers to the development of Canadian writing. Drawing from a variety of authors and genres (including novels, essays, poems, autobiographies, biographies, plays, and travel writing), this course will look at topics in women and Canadian literature in the context of theoretical questions about women's writing.

Prerequisite: 2 C-level courses in English
Recommended Preparation: ENGB06H3 or ENGB07H3
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD84H3 - Canadian Writing in the 21st Century

An analysis of features of Canadian writing at the end of the twentieth and the beginning of the twenty-first century. This course will consider such topics as changing themes and sensibilities, canonical challenges, and millennial and apocalyptic themes associated with the end of the twentieth century.

Prerequisite: 1.0 credit at the C-level in ENG courses.
Recommended Preparation: ENGB06H3 or ENGB07H3
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD89H3 - Topics in the Victorian Period

Topics vary from year to year and might include Victorian children's literature; city and country in Victorian literature; science and nature in Victorian writing; aestheticism and decadence; or steampunk.
Pre-1900 course

Prerequisite: 1.0 credit at the C-level in ENG courses
Exclusion: ENG443Y
Enrolment Limits: 22

ENGD91H3 - Avant-Garde Cinema

An exploration of Avant-Garde cinema from the earliest experiments of German Expressionism and Surrealism to our own time. The emphasis will be on cinema as an art form aware of its own uniqueness, and determined to discover new ways to exploit the full potential of the "cinematic".

Prerequisite: 2 C-level courses in English
Exclusion: INI322Y
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD93H3 - Theoretical Approaches to Cinema

Advanced study of theories and critical questions that inform current directions in cinema studies.

Prerequisite: 2 C-level courses in English
Exclusion: INI214Y
Recommended Preparation: A film course at the B- or C-level.
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD94H3 - Stranger Than Fiction: The Documentary Film

The study of films from major movements in the documentary tradition, including ethnography, cinema vérité, social documentary, the video diary, and "reality television". The course will examine the tensions between reality and representation, art and politics, technology and narrative, film and audience.

Prerequisite: 2 courses at the C-level in English
Exclusion: INI325Y
Recommended Preparation: A film course at the B- or C-level.
Enrolment Limits: 22
Breadth Requirements: Arts, Literature & Language

ENGD95H3 - Creative Writing as a Profession

A practical introduction to the tools, skills and knowledge-base required to publish in the digital age and to sustain a professional creative writing career. Topics include: the publishing landscape, pitching creative work, and employment avenues for creative writers. Will also include a workshop component (open to all genres).

Prerequisite: 1.0 credit at the C-level in Creative Writing courses
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

ENGD96H3 - Iranian Cinema

This course examines the development of Iranian cinema, particularly experimental and art cinema. Questions of form, and the political and social dimensions of cinema, will be considered alongside the theory of national cinemas. The course places Iranian cinema in a global context by considering it with other national cinemas.

Prerequisite: At least one course (0.5 credit) at B- or C-level in film
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Minor in Literature and Film Studies.

ENGD98Y3 - Senior Essay and Capstone Seminar

An intensive year-long seminar that supports students in the development of a major independent scholarly project. Drawing on workshops and peer review, bi-monthly seminar meetings will introduce students to advanced research methodologies in English and will provide an important framework for students as they develop their individual senior essays. Depending on the subject area of the senior essay, this course can be counted towards the Pre-1900 requirement.

Prerequisite: Minimum GPA of 3.5 in English courses; 15.0 credits, of which at least 2.0 must be at the C-or D-level in English.
Exclusion: ENG490Y
Recommended Preparation: At least one D-level course in English
Enrolment Limits: 15

Environmental Science

Faculty List

- G.B. Arhonditsis, B.Sc., M.Sc. (Agricultural Univ. of Athens, Greece), Ph.D. (Univ. of the Aegean, Greece), Professor
- H. Daxberger, Dipl. Geol. (Fredrich Alexander University, Germany), Ph.D. (McMaster), Assistant Professor, Teaching Stream
- M. Dittrich, M.S. (Moscow), Ph.D. (Humbolt), Associate Professor
- N. Eyles, B.Sc. (Leicester), M.Sc. (Memorial University NFLD), Ph.D. (East Anglia), D.Sc. (Leicester), P. Geo., Professor
- R.R. Fulthorpe, B.Sc., M.SC. (Toronto), Ph.D. (Carlton), Professor
- W.A. Gough, B.Sc. (Waterloo), M.Sc. (Toronto), Ph.D. (McGill), Professor
- B. Greenwood, B.Sc., Ph.D. (Bristol), Ph.D. (Hons. Causa, Uppsala), Professor Emeritus
- K.W.F. Howard, B.Sc. (Exeter), M.Sc., Ph.D. (Birmingham), P.Geo., C.Geol.F.G.S., P.H.G., Professor
- M.E. Isaac, Ph.D. (Toronto), Associate Professor
- N. Klenk, Ph.D. (British Columbia), Associate Professor
- N. Latulippe, B.A. (Hons) (Nipissing), M.A. (Guelph), Ph.D. (Toronto), Assistant Professor
- J.P. Lowman, B.Sc. (Toronto), M.Sc., Ph.D. (York, Canada), Professor
- J.I. MacLellan, R.P.F. (New Brunswick), B.A., B.Sc., M.Sc., Ph.D. (Toronto), Assistant Professor, Teaching Stream
- A. Martin, B.A.(Hon.), M.F.C., Ph.D. (Toronto), Assistant Professor
- M. Meriano, B.Sc., M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- C. Mitchell, B.Sc. (McMaster), M.Sc., Ph.D. (Toronto), Associate Professor
- T. Mohsin, B.Sc. (Dhaka), M.Sc. (Dhaka), M.E.S. (Newcastle), Ph.D. (Toronto), Senior Lecturer
- A.G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), Associate Professor Emeritus
- A. Simpson, B.Sc., Ph.D. (Birmingham), Professor
- M.J. Simpson, B.Sc., Ph.D. (Alberta), Professor
- K. Smith, B.Sc. (Queen's), M.Sc. (California Institute of Technology), Ph.D. (Toronto), Assistant Professor, Teaching Stream
- S. Stefanovic, Ph.D. (Toronto), Lecturer
- F. Wania, Dipl.Geook. (Bayreuth), Ph.D. (Toronto), Professor
- M. Wells, B.Sc., Ph.D. (Australian National), Associate Professor
- J.A. Westgate, B.Sc. (Reading), Ph.D. (Alberta), Professor Emeritus
- D.D. Williams, B.Sc. (North Wales), Dip. Ed. (Liverpool), M.Sc., Ph.D. (Waterloo), D.Sc. (Wales), Professor Emeritus

Human activity is a major cause of environmental change. The study of the dynamics of both natural and anthropogenic changes requires knowledge spanning many scientific disciplines. Recent environmental degradation such as surface and subsurface water pollution, air and soil pollution, climate change, depletion of resources, extinction of species and problems of waste disposal are all a result of the lack of understanding of environmental systems and processes. Environmental degradation has an impact not only on human beings but on all species and most natural systems so that its understanding requires approaches and skills from many disciplines such as biology, chemistry, geology, geography, mathematics, physics, and ecology.

All Environmental Science Specialist programs (Environmental Biology, Environmental Chemistry, Environmental Geoscience, Environmental Physics, and Environmental Science) and the Major Program in Environmental Science have earned official accreditation from Environmental Careers Organization (ECO) Canada and the Canadian Environmental Accreditation Commission (CEAC). These UTSC programs have met the national standard required to earn accredited status, which connects industry and academics in the environmental sector. Graduates of these programs are eligible to receive their Environmental Professional in Training (EPt) designation, which is a developmental certification for emerging environmental professionals. To learn more about the EPt program, please visit the ECO Canada website.

The overall purpose of the programs in Environmental Science is to provide education and training which will produce highly qualified scientists with excellent field and laboratory experience, with a view to future employment in consulting, government, non-governmental organizations and research and teaching.

Programs in Environmental Chemistry have been moved to the Chemistry section of the *Calendar.* Programs in Environmental Physics have been moved to the Physics and Astrophysics section of the *Calendar*.

Students are cautioned that some courses in Environmental Science (EES) may include Ancillary fees.

Combined Degree Programs, Honours Bachelor of Science/ Master of Engineering
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Engineering (MEng) offered by the Faculty of Applied Science and Engineering allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEng programs in either Chemical Engineering & Applied Chemistry or Civil Engineering. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Environmental Biology (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Biology (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Combined Degree Programs, Honours Bachelor of Science/ Master of Environmental Science
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Combined Degree Programs options are:

- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the Calendar.

Combined Degree Programs, Honours Bachelor of Science or Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Environmental Science Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENGINEERING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) and Master of Engineering (MEng) allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the Faculty of Engineering & Applied Chemistry MEng programs in either Chemical Engineering & Applied Chemistry or Civil Engineering.

Contact Information:
Mandy Meriano(416-208-2775)
Email: mmeriano@utsc.utoronto.ca

Combined Degree Programs options are:

- Environmental Biology (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering

Application Process:

- UTSC students in Year 3 of one the identified HBSc programs who are interested in one of the identified CDPs must contact Professor M. Meriano before the end of the Fall session.
- Qualified UTSC students will be able to apply to their selected CDP.
- UTSC students who are accepted to the CDP will receive a conditional offer to start the Master of Engineering (MEng) program upon completion of their HBSc program requirements.

Minimum Admission Requirements:

- Applicants must meet the admission requirements of the HBSc program, the School of Graduate Studies, and the MEng program.
- Applicants to the HBSc program must:
    - be enrolled full-time and in good standing;
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer).
- Applicants to the MEng program must:
    - maintain a B+ average (CGPA of 3.3) or higher in Year 3 and Year 4 of their HBSc program;
    - complete the requirements of their HBSc program;
    - be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBSc degree requirements:
    - students must complete all HBSc program requirements and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the CDP and may be offered conditional admission to the MEng program;
    - in Year 4, students who receive a conditional offer of admission to the CDP and MEng:
        - **must complete two prescribed undergraduate engineering half courses** (1.0 credit) as part of the HBSc degree requirements;
        - may complete up to 1.0 credit in graduate courses with the permission of either the Department of Chemical Engineering and Applied Chemistry or Department of Civil Engineering (depending on the selected CDP); these courses can be counted towards the completion of both the HBSc degree requirements and the MEng program and degree requirements.
    - by the end of Year 4, fulfill both the undergraduate program requirements and the undergraduate degree requirements.
- Year 5: Remaining MEng program and degree requirements:
    - conditions of admission are removed;
    - complete 5.0 credits in MEng courses; students who have completed up to 1.0 credit in MEng courses in Year 4 may subtract those courses from the total 5.0 credits required.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENVIRONMENTAL SCIENCE

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to

the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Biological Sciences

- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science

Department of Physical and Environmental Sciences

- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

Application Process:

- Applicants must apply to the Honours Bachelor of Science (HBSc) program, the MEnvSc program, and the CDP.
- Qualified students in Year 3 of their HBSc degree program apply to the MEnvSc program and their chosen CPD through the SGS Online Admission Application system:
    - students will select one of the three fields of study within the MEnvSc program at the time of application:
        - Climate Change Impacts and Adaptation
        - Conservation and Biodiversity, or
        - Terrestrial and Aquatic Systems

- those accepted will receive a conditional offer to start the MEnvSc program upon completion of their HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MEnvSc program and the selected CDP**, applicants must meet the following admission requirements:

- Be admitted to the HBSc degree and one of the above listed undergraduate programs at UTSC.
- Meet the minimum admission requirements of the School of Graduate Studies and the MEnvSc program.
- Be enrolled full-time and in good standing in the HBSc program:
  - have a B+ average (CGPA of 3.3) or higher in Year 2;
  - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Complete the following undergraduate courses as part of the HBSc degree requirements:
  - Students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
    - BIOC63H3 Conservation Biology (0.5 credit)
    - BIOD54H3 Applied Conservation Biology (0.5 credit)
  - Students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
    - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
    - EESD10Y3 Research Project in Environmental Science (1.0 credit)

To be given **full, unconditional admission to the MEnvSc program**, applicants must meet the following admission requirements:

- Maintain a B+ average (CGPA of 3.3) or higher in their final year of study in the HBSc program or over upper-level (C- and D-level) courses.
- Achieve at least a grade of B- (70%) in both of the graduate courses taken in Year 4 of undergraduate study; these courses must be chosen in consultation with the Graduate Program Supervisor:
  - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
  - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
  - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 4: HBSc degree requirements
  - students must complete all HBSc program requirements and degree requirements;
  - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year; where necessary, exceptions will be made for students in Co-op programs;
  - students who receive a conditional offer of admission to the CDP must complete the following undergraduate courses:

        - students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
            - BIOC63H3 Conservation Biology (0.5 credit)
            - BIOD54H3 Applied Conservation Biology (0.5 credit)
        - students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
            - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
            - EESD10Y3 Research Project in Environmental Science (1.0 credit)
    - students must complete 1.0 credit in graduate courses, chosen in consultation with the Graduate Program Supervisor, as follows:
        - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
        - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
        - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Optional registration in the Summer session prior to Year 5:
    - students complete one of the following opportunities:
        - EES 4001H Internship Training (0.5 credit)
        - EES 4003H Academic Training (0.5 credit)
- Year 5: Remaining MEnvSc program and degree requirements.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching

- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology	Science - Biology

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology	Social Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;

    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).

- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN ENVIRONMENTAL BIOLOGY (SCIENCE)

Supervisor of Studies: M. Isaac (416-287-7276) Email: marney.isaac@utoronto.ca

Program Requirements
Total requirements: 14.0 credits

First Year:
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
MATA30H3 Calculus I for Physical Sciences
[MATA35H3 Calculus II for Biological Sciences *or* MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]*
[PHYA10H3 Physics I for the Physical Sciences *or* PHYA11H3 Physics I for the Life Sciences]
Note: MATA35H3 cannot be used to fulfill the prerequisites for PSCB57H3

Second Year:
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB52H3 Ecology and Evolutionary Biology Laboratory
EESB15H3 Earth History
EESB16H3 Feeding Humans - The Cost to the Planet
[PSCB57H3 Introduction to Scientific Computing *or* CSCA08H3 Introduction to Computer Science I]
STAB22H3 Statistics I
and
1.0 credit from the following:
CHMB55H3 Environmental Chemistry
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science

Third and Fourth Years:
2.0 credits as follows:
EESC03H3 Geographic Information Systems and Remote Sensing
EESC04H3 Biodiversity and Biogeography
EESC30H3 Environmental Microbiology
EESC13H3 Environmental Impact Assessment and Auditing
and
2.0 credits from the following:
BIOC51H3 Tropical Biodiversity Field Course
BIOC52H3 Ecology Field Course
BIOC58H3 Biological Consequences of Global Change
BIOC59H3 Advanced Population Ecology
BIOC61H3 Community Ecology and Environmental Biology

BIOC65H3 Environmental Toxicology
BIOC62H3 The Role of Zoos and Aquariums in Conservation
BIOC63H3 Conservation Biology
(BIOC67H3) Inter-University Biology Field Course
and
1.0 credit from the following:
BIOD52H3 Biodiversity and Conservation
BIOD60H3 Spatial Ecology
BIOD66H3 Causes and Consequences of Biodiversity
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Research Project in Biology
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD13H3 Environmental Law, Policy and Ethics
EESD15H3 Fundamentals of Site Remediation
EESC20H3 Geochemistry
EESD09H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Sciences
PSCD11H3 Communicating Science: Film, Media, Journalism, and Society

SPECIALIST (CO-OPERATIVE) PROGRAM IN ENVIRONMENTAL BIOLOGY (SCIENCE)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Environmental Biology is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Biology upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements

The minimum qualifications for entry are 4.5 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, EESA01H3, EESA06H3, MATA30H3, [MATA35H3 or MATA36H3 or MATA37H3] and PHYA10H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Environment

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Environmental Biology and have completed at least 7.0 credits.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN ENVIRONMENTAL GEOSCIENCE (SCIENCE)

Supervisor of Studies: M. Meriano (416-208-2775) Email: mmeriano@utsc.utoronto.ca

This program has been designed to meet the expectations of the Association of Professional Geoscientists of Ontario (APGO) - the licensing and regulatory body responsible for ensuring that geoscientists have the appropriate qualifications to practice. Students are encouraged to make careful choice of optional/elective courses to meet APGO requirements.

Please visit the APGO website for further information on requirements to become a Professional Geoscientist (P.Geo) in Ontario.

Program Requirements
Total requirements: 16.0 credits of which 1.0 credit must be at the D-level as follows:

First Year:
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
MATA30H3 Calculus I for Physical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

Second Year:
CHMB55H3 Environmental Chemistry
EESB02H3 Principles of Geomorphology
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History
EESB18H3 Natural Hazards
EESB19H3 Mineralogy
[CSCA20H3 Introduction to Programming or PSCB57H3 Introduction to Scientific Computing]
STAB22H3 Statistics I

Third Year:
EESB20H3 Sedimentology and Stratigraphy
EESC03H3 Geographic Information Systems and Remote Sensing
EESC07H3 Groundwater
EESC13H3 Environmental Impact Assessment and Auditing
EESC20H3 Geochemistry
EESC31H3 Glacial Geology
EESC36H3 Petrology
and
0.5 credit from the following:
BIOB50H3 Ecology

EESB21H3 Exploration Geophysics
EESB26H3 Introduction to Global Geophysics
EESC18H3 Limnology
EESC19H3 Oceanography

Fourth Year:
EESC37H3 Structural Geology
and
0.5 credit from the following:
EESC26H3 Seismology and Seismic Methods
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD09H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Science
EESD11H3 Advanced Watershed Hydrology
EESD13H3 Environmental Law, Policy and Ethics
EESD15H3 Fundamentals of Site Remediation
EESD19H3 Professional Development Seminars in Geoscience
EESD20H3 Geological Evolution and Environmental History of North America
EESD21H3 Geophysical and Climate Data Analysis
and
[1.0 credit at the C- or D-level in EES courses] or [0.5 credit at the C- or D-level in EES courses and PSCD11H3 Communicating Science: Film, Media, Journalism, and Society]
Strongly recommended: EESC16H3 Field Camp I or EESD07H3 Field Camp II or EESD33H3 Field Techniques

SPECIALIST (CO-OPERATIVE) PROGRAM IN ENVIRONMENTAL GEOSCIENCE (SCIENCE)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Environmental Geoscience is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Geoscience upon graduation.

This program has been designed to meet the expectations of the Association of Professional Geoscientists of Ontario (APGO) - the licensing and regulatory body responsible for ensuring that geoscientists have the appropriate qualifications to practice. Please visit the APGO website for further information on requirements to become a Professional Geoscientist (P.Geo) in Ontario.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 5.0 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, EESA01H3, EESA06H3, MATA30H3, [MATA36H3 or MATA37H3], PHYA10H3 and PHYA21H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject

POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Environmental Geoscience.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Environmental Geoscience and have completed at least 7.0 credits.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for

programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN ENVIRONMENTAL SCIENCE (SCIENCE)

Supervisor of Studies: T. Mohsin (416-287-7245) Email: tanzina.mohsin@utoronto.ca

Program Requirements
This program requires 8.5 credits as follows:

First Year
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
[(MATA20H3) Calculus A *or* MATA30H3 Calculus I for Physical Sciences]
[(MATA21H3) Calculus B *or* MATA35H3 or MATA36H3 Calculus II for Biological/Physical Sciences]*
[PHYA10H3 Physics I for the Physical Sciences *or* PHYA11H3 Physics I for the Life Sciences]
EESA06H3 Planet Earth
Note: MATA35H3 cannot be used to fulfill the prerequisites for PSCB57H3

Second Year
STAB22H3 Statistics I
and
1.5 credits from the following:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History
EESB16H3 Feeding Humans - The Cost to the Planet
and
0.5 credit from the following:
BIOB50H3 Ecology
EESB02H3 Principles of Geomorphology
EESB17H3 Hydro Politics and Transboundary Water Resource Management
PSCB57H3 Introduction to Scientific Computing
CHMB55H3 Environmental Chemistry

Third & Fourth Years
[2.0 credits at the C- or D-level in EES courses with at least 0.5 credit at the D-level] or [1.5 credits at the C- or D-level in EES courses and PSCD11H3 Communicating Science: Film, Media, Journalism, and Society]

MAJOR (CO-OPERATIVE) PROGRAM IN ENVIRONMENTAL SCIENCE

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Environmental Science is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Science upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including, BIOA01H3, BIOA02H3, and EESA06H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Environmental Science.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Environmental Science and have completed at least 7.0 credits.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete

this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN ENVIRONMENTAL SCIENCE (SCIENCE)

Supervisor of Studies/Advisor: M. Wells (416-208-4879) Email: wells@utsc.utoronto.ca

The Minor Program is designed to provide insights into the basic principles of Environmental Science and its application to current environmental issues. It is intended for students with an interest in environmental issues but who do not have the necessary background for specialization in the field. In addition to science students, it is appropriate for students pursuing a degree in the social sciences or in management and economics.

Program Requirements
Total requirements: 4.0 credits

First Year:
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth

Second Year:
1.5 credits from the following:
EESB02H3 Principles of Geomorphology
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology

EESB05H3 Principles of Soil Science
EESB15H3 Earth History

Third Year:
[1.5 credits in EES courses of which 1.0 credit must be at the C- or D-level] or [1.0 credit at the C- or D-level in EES courses and PSCD11H3 Communicating Science: Film, Media, Journalism, and Society]

MINOR PROGRAM IN NATURAL SCIENCES AND ENVIRONMENTAL MANAGEMENT (SCIENCE)

This Minor is designed to provide students with a multidisciplinary education encompassing the origin and natural history of the Earth, environmental science and environmental management, with emphasis on how these branches of study relate to one another. Building on foundational courses in natural and environmental science, students will develop decision-analysis techniques and a broad perspective on human impact on the environment. In upper years, knowledge of natural, environmental and social sciences is implemented in analyses of real-world issues through integrative environmental studies courses. The program is well suited to complement degree programs in Management, Economics for Management Studies and the Social Sciences. First-year students are strongly advised to check prerequisites for B- and C-level courses before choosing their A-level courses.
Note: The Minor in Natural Sciences and Environmental Management cannot be combined with the Major in Environmental Science (Science), the Major Environmental Studies (Arts) or the Minor in Environmental Science (Science).

Program Requirements
Students must complete a total of 4.0 credits as follows:

First Year:
1.0 credit from the following:
ASTA01H3 Introduction to Astronomy and Astrophysics I: The Sun and Planets
ASTA02H3 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
EESA06H3 Introduction to Planet Earth
EESA09H3 Wind
EESA10H3 Human Health and the Environment
EESA11H3 Environmental Pollution
ESTB01H3 Introduction to Environmental Studies

Second/Third Year:
1.5 credits from the following:
ASTB03H3 Great Moments in Astronomy*
EESB05H3 Principles of Soil Science**
EESB15H3 Earth History**
EESB16H3 Feeding Humans - The Cost to the Planet***
EESB18H3 Natural Hazards
EESC13H3 Environmental Impact Assessment and Auditing
EESC34H3 Sustainability in Practice

Third/Fourth Year:
1.5 credits from the following:
ESTC35H3 Environmental Science and Technology in Society

ESTC36H3 Knowledge, Ethics and Environmental Decision-Making
ESTD16H3 Project Management in Environmental Studies
ESTD17Y3 Cohort Capstone Course in Environmental Studies
POLC53H3 Canadian Environmental Policy
PSCD02H3 Current Questions in Mathematics and Science
PSCD11H3 Communicating Science: Film, Media, Journalism, and Society

Notes:

*ASTB03H3 cannot be taken in combination with any other AST course in the program.
**Students in the Minor in Natural Sciences and Environmental Management must take EESA06H3 as the prerequisite for these courses.
***The prerequisites for this course are BIOA01H3 and BIOA02H3, which are not included in the requirements for the Minor.

Environmental Science Courses

EESA01H3 - Introduction to Environmental Science

The scientific method and its application to natural systems. The physical and biological processes which drive ecosystem functions. Anthropogenic changes in ecosystem functions at local and global scales. Emphasis on the degradation of the atmosphere, soil, water and biological resources caused by human activity. Renewable and non-renewable resource sustainability. Laboratories will include hands-on field and lab related practical experience.

Exclusion: ENV100Y
Breadth Requirements: Natural Sciences

EESA06H3 - Introduction to Planet Earth

This general interest course explores the composition, structure and origin of the Earth and the tectonic, chemical and biological processes that have evolved over the last 4.5 billion years. It explains how planet "works" as a complex system. It provides a fundamental basis for understanding many of the environmental challenges faced by human societies especially natural hazards, water shortages, and climate change, and the importance of natural resources to our economy.

Exclusion: GGR100Y, GLG110H
Breadth Requirements: Natural Sciences

EESA07H3 - Water

This course consists of a survey of the planet's water resources and the major issues facing the use of water. Topics include: Earth, the watery planet; water, the last great resource; Canada's waters; Ontario's waters; water and man; water contamination; and protecting our waters. Case studies such as the Walkerton tragedy will be studied. No prior knowledge of environmental science is required.

Breadth Requirements: Natural Sciences

EESA09H3 - Wind

A survey of the science, history and applications of wind. Topics include storms including hurricanes, tornadoes and mid-latitude cyclones, global circulation, local circulations, measurement of winds, impact of winds on land surfaces, wind power, winds and pollution, historical and literary winds, and contemporary wind research. No prior knowledge of environmental science is required.

Breadth Requirements: Natural Sciences

EESA10H3 - Human Health and the Environment

Because of pollution, our surroundings are becoming increasingly hazardous to our health. The past century has seen intense industrialization characterized by the widespread production and use of chemicals and the intentional and unintentional disposal of a wide range of waste materials. This course explores the relationship between the incidence of disease in human populations and the environmental pollution. Emphasis will be placed on understanding where and what pollutants are produced, how they are taken up by humans and their long term effects on health; the role of naturally-occurring carcinogens will also be examined. The course will include a view of risk assessment and toxicology using case studies. No prior knowledge of environmental or medical science is required.

Breadth Requirements: Natural Sciences

EESA11H3 - Environmental Pollution

This course illustrates the environmental effects of urban expansion, changing methods of agriculture, industrialization, recreation, resource extraction, energy needs and the devastation of war. Drawing on information from a wide spectrum of topics - such as waste disposal, tourism, the arctic, tropical forests and fisheries - it demonstrates what we know about how pollutants are produced, the pathways they take through the global environment and how we can measure them. The course will conclude with an examination of the state of health of Canada's environments highlighting areas where environmental contamination is the subject of public discussion and concern. No prior knowledge of environmental science is required.

Breadth Requirements: Natural Sciences

EESB02H3 - Principles of Geomorphology

The physical and chemical processes responsible for the development of regolith at the surface of the earth and the mechanics of entrainment, transport and deposition of mass by rivers, wind, glaciers, water waves, gravitational stresses, etc., which control the evolution of surface morphology.
Field excursions and laboratory exercises will allow students to apply theory to natural systems and to understand the dynamics of one man-modified geomorphic system.

Prerequisite: EESA06H3
Exclusion: GGR201H
Breadth Requirements: Natural Sciences

EESB03H3 - Principles of Climatology

This is an overview of the physical and dynamic nature of meteorology, climatology and related aspects of oceanography. Major topics include: atmospheric composition, nature of atmospheric radiation, atmospheric moisture and cloud development, atmospheric motion including air masses, front formation and upper air circulation, weather forecasting, ocean circulation, climate classification, climate change theory and global warming.

Prerequisite: EESA06H3 or EESA09H3
Exclusion: GGR203H, GGR312H
Breadth Requirements: Natural Sciences

EESB04H3 - Principles of Hydrology

The water and energy balances; fluxes through natural systems. Process at the drainage basin scale: precipitation, evaporation, evapotranspiration and streamflow generation. The measurement of water fluxes, forecasting of rainfall and streamflow events. Human activity and change in hydrologic processes.

Prerequisite: EESA01H3 or EESA06H3 or any B-level EES course.
Exclusion: GGR206H
Breadth Requirements: Natural Sciences

EESB05H3 - Principles of Soil Science

A study of the processes of pedogenesis and the development of diverse soil profiles, their field relationships and their response to changing environmental conditions.
An examination of the fundamental soil properties of importance in soil management. An introduction to the techniques of soil examination in the field, soil analysis in the laboratory and the basic principles of soil classification.

Prerequisite: EESA01H3 or EESA06H3
Exclusion: GGR205H
Breadth Requirements: Natural Sciences

EESB15H3 - Earth History

Planet Earth is at least 4,400 million years old and a geological record exists for at least the last 3,900 million years in the form of igneous, metamorphic and sedimentary rocks. The changing dynamics of convection deep within the Earth's mantle and associated super-continent assembly and breakup along with meteorite impacts, are now recognized as the major controls on development of the planet's atmosphere, oceans, biology, climate and geo-chemical cycles. This course reviews this long history and the methods and techniques used by geologists to identify ancient environments.

Prerequisite: EESA06H3
Breadth Requirements: Natural Sciences
Note: Note: Priority will be given to students in Specialist programs in Environmental Geoscience, Environmental Biology, and Environmental Chemistry.

EESB16H3 - Feeding Humans - The Cost to the Planet

Examines the origins and systems of production of the major plants and animals on which we depend for food. Interactions between those species and systems and the local ecology will be examined, looking at issues of over harvesting, genetic erosion, soil erosion, pesticide use, and impacts of genetically modified strains.

Prerequisite: BIOA01H3 and BIOA02H3
Breadth Requirements: Natural Sciences

EESB17H3 - Hydro Politics and Transboundary Water Resources Management

Competition for water resources between countries is common; population and economic growth are exacerbating this. The socio-political, environmental and economic aspects of transboundary water transfers are explored; the success of relevant international treaties and conventions, and the potential for integrated management of transboundary waters are assessed. Examples from Asia, Africa and the Middle East are presented.

Prerequisite: EESA01H3 or EESA07H3
Breadth Requirements: Social & Behavioural Sciences

EESB18H3 - Natural Hazards

This course is an investigation of the geological background and possible solutions to major hazards in the environment.
Environmental hazards to be studied include: landslides, erosion, earthquakes, volcanic eruptions, asteroid impacts, flooding, glaciation, future climate change, subsidence, and the disposal of toxic wastes. This may be of interest to a wide range of students in the life, social, and physical sciences; an opportunity for the non-specialist to understand headline-making geological events of topical interest. No prior knowledge of the Earth Sciences is required.

Exclusion: (EESA05H3), GLG103H
Breadth Requirements: Natural Sciences

EESB19H3 - Mineralogy

A comprehensive introduction to crystalline structure, crystal chemistry, bonding in rock forming minerals, and optical properties of minerals. The course includes laboratory exercises on the identification of minerals in hand specimen, and identification of minerals using polarizing microscopes.

Prerequisite: CHMA10H3 and CHMA11H3 and EESB15H3
Exclusion: (EESC32H3), (EESC35H3), GLG423H
Breadth Requirements: Natural Sciences

EESB20H3 - Sedimentology and Stratigraphy

Sedimentary basins hold the bulk of Earth's rock record and are fundamental in the study of past environments, tectonic evolution, climates, and biosphere. This course will explore different basin types and the nature of their infills. The course will also emphasize the economic resources within sedimentary basins and paleoenvironmental significance.

Prerequisite: EESA01H3 and EESB15H3
Exclusion: ESS331H, ESS332H, ERS313H
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist Program in Environmental Geoscience (Co-op and non-Co-op). Additional students will be admitted as space permits.

EESB21H3 - Exploration Geophysics

The course will provide a general introduction to the most important methods of geophysical exploration. Topics covered will include physical principles, methodology, interpretational procedures and field application of various geophysical survey methods. Concepts/methods used to determine the distribution of physical properties at depths that reflect the local surface geology will be discussed.

Prerequisite: EESA06H3 and PHYA21H3
Corequisite: None
Exclusion: JGA305
Recommended Preparation: EESB15H3, EESB20H3
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

EESB26H3 - Introduction to Global Geophysics

This course describes the processes and energy sources shaping the solid Earth's physical evolution and the means by which the properties of the planet's interior can be inferred. Topics include detection of the Earth's core, Earth's magnetic field, manifestations of Earth's secular cooling (e.g., mantle convection) and Earth's gravity field.

Prerequisite: MATA36H3 and PHYA21H3
Corequisite: EESB15H3
Exclusion: JPE395H1
Breadth Requirements: Natural Sciences

EESC03H3 - Geographic Information Systems and Remote Sensing

This course focuses on the use of Geographic Information Systems (GIS) and Remote Sensing (RS) for solving a range of scientific problems in the environmental sciences and describing their relationship with - and applicability to - other fields of study (e.g. geography, computer science, engineering, geology, ecology and biology). Topics include (but are not limited to): spatial data types, formats and organization; geo-referencing and coordinate systems; remotely sensed image manipulation and analysis; map production.

Prerequisite: EESA06H3 and 0.5 credit at the B-level in EES courses
Corequisite: 0.5 credit at the B-level in EES courses
Recommended Preparation: GGRB30H3
Breadth Requirements: Quantitative Reasoning

EESC04H3 - Biodiversity and Biogeography

Theoretical and practical aspect of the evolution of organismal diversity in a functional context; examination of species distributions and how these are organized for scientific study. Emphasis will be on the highly diverse invertebrate animals. Topics include biomes, dispersal, adaptation, speciation, extinction and the influence of climate history and humans.

Prerequisite: BIOB50H3
Breadth Requirements: Natural Sciences

EESC07H3 - Groundwater

Groundwater represents the world's largest and most important fresh water resource. This basic course in hydrogeology introduces the principles of groundwater flow and aquifer storage and shows how a knowledge of these fundamental tools is essential for effective groundwater resource management and protection. Special emphasis is placed on the practical methods of resource exploration and assessment; examples of the approach are given for aquifers under environmental stress in southern Ontario, the US and Africa.

Prerequisite: EESA06H3 and 1.0 full credit in B-level EES courses
Breadth Requirements: Natural Sciences

EESC13H3 - Environmental Impact Assessment and Auditing

To familiarize students with the relevant legislation, qualitative and quantitative approaches and applications for environmental impact assessments and environmental auditing. The focus will be on the assessment of impacts to the natural environment, however, socio-economic impacts will also be discussed. Environmental auditing and environmental certification systems will be discussed in detail. Examples and case studies from forestry, wildlife biology and land use will be used to illustrate the principles and techniques presented in the course. Students will acquire "hands-on" experience in impact assessment and environmental auditing through case studies.

Prerequisite: 1.0 credit in EES courses
Corequisite: 0.5 credit in EES courses
Exclusion: GGR393H
Breadth Requirements: Natural Sciences

EESC16H3 - Field Camp I

Many environmental problems can only be assessed by collecting geological and other environmental data in the field. This course will provide students with the necessary skills for fieldwork investigations in a range of environments. The camp is held annually either in May or late August. Locations for the camp include Costa Rica, Rockies, Arizona, and Appalachians.

Prerequisite: Permission of the instructors.
Recommended Preparation: EESB15H3
Breadth Requirements: Natural Sciences

EESC18H3 - Limnology

North America is endowed with eight of the twelve largest lakes in the world. The origin and geological history, cycles of carbon, nitrogen and phosphorus, and structures of ecosystems of the North American Great Lakes will be used as examples of large lacustrine systems. Fundamental concepts of limnology will be related to features found in the Great Lakes. Topics include: lake origins, lake classification, lake temperature structure and heat budgets, seasonal water circulations, productivity, plankton ecology, food-web dynamics, exotic species invasions, eutrophication-related phenomena and water quality/fisheries management. Specific anthropogenic influences will be illustrated using case studies from the local environment, and students will be allowed to pursue their own interests through a series of short seminars.

Prerequisite: EESB03H3
Recommended Preparation: EESB02H3
Breadth Requirements: Natural Sciences

EESC19H3 - Oceanography

The world's oceans constitute more than 70% of the earth's surface environments. This course will introduce students to the dynamics of ocean environments, ranging from the deep ocean basins to marginal seas to the coastal ocean. The large-scale water circulation is examined from an observationally based water mass analysis and from a theoretical hydro-dynamical framework. The circulation of marginal seas, the role of tides, waves and other currents are studied in terms of their effects upon the coastal boundary.

Prerequisite: EESB03H3
Recommended Preparation: EESB02H3
Breadth Requirements: Natural Sciences

EESC20H3 - Geochemistry

The course will cover fundamental aspects of chemical processes occurring at the Earth's surface. Terrestrial and aquatic geochemical processes such as: mineral formation and dissolution, redox, aqueous-solid phase interactions, stable isotopes, and organic geochemistry in the environment will be covered.

Prerequisite: CHMA10H3 and CHMA11H3 and EESB15H3
Exclusion: (EESD32H3), CHM210H, GLG202H, GLG351H
Breadth Requirements: Natural Sciences

EESC24H3 - Advanced Readings in Environmental Science

An advanced supervised readings course that can be taken in any session. Students will follow structured independent readings in any area of Environmental Science. A description of the objectives and scope of the individual offering must be approved by the Supervisor of Studies. Two papers are required in the course; the supervisor and one other faculty member will grade them. The course may not be used as a substitute for EES Program requirements.

Prerequisite: A minimum CGPA of 2.5, and 3.0 credits in EES and/or EST courses. Permission of the Supervisor of Studies.

EESC26H3 - Seismology and Seismic Methods

A course describing how seismology is used to probe both shallow layers near the surface as well as Earth's deep interior. Topics covered will include refraction and reflection methods, surface waves, tomography, magnitude and the Richter scale. Concepts including travel times and anisotropy will be discussed.

Prerequisite: EESB26H3
Exclusion: JPE493
Breadth Requirements: Natural Sciences

EESC30H3 - Environmental Microbiology

This course examines the diversity of microorganisms, their adaptations to special habitats, and their critical role in the ecosystems and biogeochemical cycles. The course covers microbial phylogeny, physiological diversity, species interactions and state of the art methods of detection and enumeration.

Prerequisite: CHMA10H3 and CHMA11H3 and BIOB50H3 and BIOB51H3
Exclusion: (BGYC55H3)
Breadth Requirements: Natural Sciences

EESC31H3 - Glacial Geology

The last 2.5 million years has seen the repeated formation of large continental ice sheets over North America and Europe. The course will review the geologic and geomorphologic record of past glacial and interglacial climates, the formation and flow of ice sheets , and modern day cold-climate processes in Canada's north. The course includes a one-day field trip to examine the glacial record of the GTA.

Prerequisite: EESA06H3 and EESB20H3
Breadth Requirements: Natural Sciences

EESC33H3 - Environmental Science Field Course

A field course on selected topics in aquatic environments. Aquatic environmental issues require careful field work to collect related hydrological, meteorological, biological and other environmental data. This hands-on course will teach students the necessary skills for fieldwork investigations on the interactions between air, water, and biota.

Prerequisite: 1.5 full credits at the B-level or higher in EES and permission of instructor.
Exclusion: (EEB310H)
Enrolment Limits: 20
Breadth Requirements: Natural Sciences

EESC34H3 - Sustainability in Practice

This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.
Same as ESTC34H3

Prerequisite: EESA06H3 and an additional 9.5 credits
Exclusion: ESTC34H3
Enrolment Limits: 20
Breadth Requirements: Natural Sciences

EESC36H3 - Petrology

This course surveys the processes that produce the chemical and mineralogical diversity of igneous, sedimentary, and metamorphic rocks including: the distribution, chemical and mineral compositions of rocks of the mantel and crust, their physical properties, and their relation to geological environments. Descriptive petrology for various rocks will also be covered.

Prerequisite: EESB19H3 or (EESC35H3)
Exclusion: (EESC32H3), GLG207H, ERS203H
Recommended Preparation: EESB15H3
Enrolment Limits: 40
Breadth Requirements: Natural Sciences
Note: Students who do not have the prerequisites will be removed from the course. Priority will be given to students in Year 4 of their program.

EESC37H3 - Structural Geology

The course introduces mechanics of rock deformation. It examines identification, interpretation, and mechanics of faults, folds, and structural features of sedimentary, igneous and metamorphic rocks as well as global, regional and local scale structural geology and tectonics. Lectures are supplemented by lab exercises and demonstrations as well as local field trips.

Prerequisite: [PHYA10H3 or PHYA11H3] and EESB15H3 and EESB20H3
Exclusion: GLG345H, ESS241H
Enrolment Limits: 40
Breadth Requirements: Natural Sciences
Note: Students who do not have the prerequisites will be removed from the course. Priority will be given to students enrolled in the Specialist Program in Environmental Geoscience. Additional students will be admitted as space permits.

EESD02H3 - Contaminant Hydrogeology

Natural hydrochemical processes; the use of major ions, minor ions, trace metals and environmental isotopes in studying the occurrence and nature of ground water flow. Point and non-point sources of ground water contamination and the mechanisms of contaminant transport.

Prerequisite: At least 1 full credit in Environmental Science at the C-level.
Breadth Requirements: Natural Sciences

EESD06H3 - Climate Change Impact Assessment

Climate change over the last 150 years is reviewed by examining the climate record using both direct measurements and proxy data. Projection of future climate is reviewed using the results of sophisticated climate modeling. The climate change impact assessment formalism is introduced and applied to several examples. Students will acquire practical experience in climate change impact assessment through case studies.

Prerequisite: EESB03H3
Breadth Requirements: Natural Sciences

EESD07H3 - Field Camp II

This field camp will familiarize students with several geological settings and modern environments.
The camp is held annually either in May or late August. Locations for the camp include Costa Rica, Rockies, Arizona, and Appalachians.

Prerequisite: EESC16H3 and permission of the instructors
Breadth Requirements: Natural Sciences

EESD09H3 - Research Project in Environmental Science

The design, implementation, and reporting of a substantial research project involving laboratory and/or fieldwork. Existing faculty research allows a broad range of possible topics. The course should be undertaken after the end of the 3rd Year, subject to faculty availability. Faculty permission and supervision is required; open only to those students who have either completed or are undertaking specialist courses in the area of intended study. Students having a B+ or higher standing may be eligible for summer financial support from research projects.

Prerequisite: At least 1.0 credit at the C-level in EES courses and 0.5 credit at the C-level in CHM, or PHY courses.
Exclusion: GLG470Y, GLG471H
Recommended Preparation: EESC24H3

EESD10Y3 - Research Project in Environmental Science

The design, implementation, and reporting of a substantial research project involving laboratory and/or fieldwork. Existing faculty research allows a broad range of possible topics. The course should be undertaken after the end of the 3rd Year, subject to faculty availability. Faculty permission and supervision is required; open only to those students who have either completed or are undertaking specialist courses in the area of intended study. Students having a B+ or higher standing may be eligible for summer financial support from research projects. Permission of the co-ordinator must be obtained.

Prerequisite: At least 1.0 credit at the C-level in EES courses and 0.5 credit at the C-level in CHM, or PHY courses.
Exclusion: GLG470Y, GLG471H
Recommended Preparation: EESC24H3

EESD11H3 - Advanced Watershed Hydrology

The motion of water at the hill slope and drainage basin scales. The relationship between surface and subsurface hydrological processes. Soil hydrologic processes emphasizing infiltration. Stream flow generation mechanisms, hydrometric and isotopic research methods. Problems of physically based and empirical modelling of hydrological processes. Snowmelt energetics and modelling.

Prerequisite: EESB04H3
Breadth Requirements: Natural Sciences

EESD13H3 - Environmental Law, Policy and Ethics

This course reviews the laws and policies governing the management of natural resources in Canada. It examines the role of law and how it can it can work most effectively with science, economics and politics to tackle environmental problems such as climate change, conservation, and urban sprawl at domestic and international scales.

Prerequisite: Students must have completed at least 15.0 credits
Exclusion: LAW239H
Recommended Preparation: EESA10H3 and EESA11H3 and EESC13H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist and Major programs in Environmental Science. Additional students will be admitted as space permits.

EESD15H3 - Fundamentals of Site Remediation

This course consists of a study of the ways in which hazardous organic and inorganic materials can be removed or attenuated in natural systems. The theory behind various technologies, with an emphasis on bioremediation techniques and their success in practice. An introduction to the unique challenges associated with the remediation of surface and ground water environments, soils, marine systems, and contaminated sediments.

Prerequisite: BIOA01H3 and BIOA02H3 and CHMA10H3 and CHMA11H3 and [PHYA10H3 or PHYA11H3]
Breadth Requirements: Natural Sciences

EESD16H3 - Project Management in Environmental Studies

Students will select a research problem in an area of special interest. Supervision will be provided by a faculty member with active research in geography, ecology, natural resource management, environmental biology, or geosciences as represented within the departments. Project implementation, project monitoring and evaluation will form the core elements for this course.
Same as ESTD16H3

Prerequisite: At least 14.5 credits
Exclusion: ESTD16H3
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

EESD17Y3 - Cohort Capstone Course in Environmental Studies

This course is designed to provide a strong interdisciplinary focus on specific environmental problems including the socioeconomic context in which environmental issues are resolved. The cohort capstone course is in 2 consecutive semesters, providing final year students the opportunity to work in a team, as environmental researchers and consultants, combining knowledge and skill-sets acquired in earlier courses. Group research to local environmental problems and exposure to critical environmental policy issues will be the focal point of the course. Students will attend preliminary meetings schedules in the Fall semester.
Same as ESTD17Y3

Prerequisite: At least 14.5 credits
Exclusion: ESTD17Y3
Enrolment Limits: 30
Breadth Requirements: Natural Sciences

EESD18H3 - Environmental Studies Seminar Series

This course will be organized around the DPES seminar series, presenting guest lecturers around interdisciplinary environmental themes. Students will analyze major environmental themes and prepare presentations for in-class debate.
Same as ESTD18H3

Prerequisite: At least 14.5 credits
Exclusion: ESTD18H3
Breadth Requirements: Natural Sciences

EESD19H3 - Professional Development Seminars in Geoscience

This course consists of 12 lectures given by senior industry professionals to prepare students for a post-graduate career in environmental consulting. Lectures will convey the full range of consulting activities, including visits to environmental investigation sites in the Toronto area. Technical writing and oral communication skills will be stressed in assignments.

Prerequisite: Students must be enrolled in the 4th year of their Environmental Science Program.
Breadth Requirements: Natural Sciences

EESD20H3 - Geological Evolution and Environmental History of North America

This course reviews the geological and environmental evolution of the North American continent over the past 4 billion years by exploring the range of plate tectonics involved in continental growth and how those processes continue today. It will explore major changes in terrestrial and marine environments through geologic time and associated organisms and natural resources of economic importance, and will conclude with an examination of recent human anthropogenic influences on our environment especially in regard to urban areas and associated problems of waste management, resource extraction, geological hazards, and the impacts of urbanization on watersheds and water resources. The course will include a weekend field trip to examine the geology and urban environmental problems of The Greater Toronto Area. It provides students in environmental science with a fundamental knowledge of the importance of environmental change on various timescales and the various field methods used to assess such changes.

Prerequisite: 15.0 credits, including at least 4.0 credits at the C- or D-level
Exclusion: (EESC21H3)
Breadth Requirements: Natural Sciences

EESD21H3 - Geophysical and Climate Data Analysis

This course offers an advanced introduction to geophysical data analysis. It is intended for upper-level undergraduate students and graduate students interested in data analysis and statistics in the geophysical sciences and is mainly laboratory (computer) based. The goal is to provide an understanding of the theory underlying the statistical analysis of geophysical data, in space, time and spectral domains and to provide the tools to undertake this statistical analysis. Important statistical techniques such as regression, correlation and spectral analysis of time series will be explored with a focus on hypothesis formulation and interpretation of the analysis. Multivariate approaches will also be introduced. Although some previous knowledge of probability and statistics will be helpful, a review will be provided at the beginning of the course. Concepts and notation will be introduced, as needed.

Jointly offered with EES1132H.

Prerequisite: [MATA21H3 or MATA35H3 or MATA36H3] and PSCB57H3 and STAB22H3
Exclusion: EES1132H
Enrolment Limits: 38
Breadth Requirements: Quantitative Reasoning
Note: Graduate students enrolled in the Master of Environmental Science or in a Ph.D. program in DPES have enrollment priority as EESD21H3 it is a partner course for an existing graduate course EES1132H.

EESD33H3 - Field Techniques

This course consists of a series of modules designed for students to gain practical skills necessary to investigate and characterize complex environmental systems. Field projects will allow students to collect scientific data that they will use to interpret the geology, hydrogeology, and chemistry of natural and anthropogenic environments.

Prerequisite: EESB02H3 and EESC07H3
Exclusion: EES330H, GGR390H, GGR379H
Enrolment Limits: 30
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op programs in Environmental Science.

Environmental Studies

Faculty List

- G.B. Arhonditsis, B.Sc., M.Sc. (Agricultural Univ. of Athens, Greece), Ph.D. (Univ. of the Aegean, Greece), Professor
- S.C. Bunce, B.A. (Guelph), M.E.S. Pl. (York), Ph.D. (York), Assistant Professor
- R.R. Fulthorpe, B.Sc., M.SC. (Toronto), Ph.D. (Carlton), Professor
- W.A. Gough, B.Sc. (Waterloo), M.Sc. (Toronto), Ph.D. (McGill), Professor
- J. Hannigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
- M. Hoffmann, B.S. (Michigan Technological University), Ph.D. (George Washington University), Associate Professor
- M.E. Isaac, B.Sc., M.Sc. (Guelph), Ph.D. (Toronto), Associate Professor
- T. Kepe, B.Agric. (Fort Hare), M.Sc. (Guelph), Ph.D. (Western Cape), Associate Professor
- N. Klenk, B.Sc., M.Sc. (McGill), Ph.D. (UBC), Associate Professor
- K. MacDonald, B.A. (Wilfrid Laurier), M.A., Ph.D. (Waterloo), Assistant Professor
- J.I. MacLellan, R.P.F. (New Brunswick), B.A., B.Sc., M.Sc., Ph.D. (Toronto), Assistant Professor, Teaching Stream
- A. Martin, B.A.(Hon), M.F.C., Ph.D. (Toronto), Assistant Professor
- C. Mitchell, B.Sc. (McMaster), M.Sc., Ph.D. (Toronto), Associate Professor
- T. Mohsin, B.Sc. (Dhaka), M.Sc. (Dhaka), M.E.S. (Newcastle), Ph.D. (Toronto), Lecturer
- R. Narayanareddy, MESc. (Yale University), Ph.D. (Minnesota), Assistant Professor

There is significant public and student interest in environmental issues. This Major Program in Environmental Studies (B.A.) gives students an opportunity to develop an understanding of environmental issues from the perspectives of the physical, life and social sciences. It serves as an excellent companion to Majors such as Anthropology, Human Geography, Political Science, Public Policy, Sociology, Chemistry, Biochemistry, Environmental Science, Biology, Biodiversity, Ecology and Evolution, Physics and Astrophysics, and Physical Sciences.

The program is designed as a contemporary rendering of the study of environmental problems and the knowledge/tools needed to solve them. One of its key features is the classification of the courses offered into Foundation & Skills and Capstone & Applications. The former group will build a foundation of socioeconomics and environmental science, while the latter group will integrate insights from different disciplines and nurture an interdisciplinary way of thinking. These courses also include many opportunities for experiential learning through problem-solving case studies, team-based projects and individual research. Special emphasis is placed on the capacity of the program to successfully build the requisite interdisciplinary, problem-solving skill sets needed when tackling environmental management issues. The program effectively balances the need for a strong foundation in basic principles characterizing a typical program in Environmental Studies and the importance of building bridges among the various disciplines involved.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Environmental Studies Programs

MAJOR PROGRAM IN ENVIRONMENTAL STUDIES (ARTS)

Supervisor of Studies J, MacLellan (416-208-2661) Email: jim.maclellan@utoronto.ca

Companion majors include: Anthropology, Human Geography, Political Science, Public Policy, Sociology, Biology, Biodiversity, Ecology and Evolution, Chemistry, Biochemistry, and Environmental Science, Physics and Astrophysics, and Physical Sciences. Other majors are possible with permission of the Supervisor of Study.

Program Requirements
Completion of 8.5 credits as follows:

1. Core Courses (2.5 credits)

EESA01H3 Introduction to Environmental Science
[MGEA01H3 Introduction to Microeconomics *or* MGEA05H3 Introduction to Macroeconomics]
ESTB01H3 Introduction to Environmental Studies
and
0.5 credit chosen from the following:
ANTB01H3 Political Ecology
ESTB02H3/GGRB18H3 Canada, Indigenous Peoples, and the Land
GGRA03H3 Cities and Environments
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II
POLB80H3 Introduction to International Relations I
and
0.5 credit chosen from the following:
EESA06H3 Introduction to Planet Earth
EESA07H3 Water
EESA09H3 Wind
EESA10H3 Human Health and the Environment
EESA11H3 Environmental Pollution
EESB18H3 Natural Hazards

2. Foundations and Skills (4.0 credits)
ESTC35H3 Environmental Science and Technology in Society
ESTC36H3 Knowledge, Ethics and Environmental Decision-Making
IDSB02H3 Development and Environment
STAB22H3 Statistics I (or equivalent)
and
2.0 credits chosen from the following:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB17H3 Hydro Politics and Transboundary Water Resources Management
EESC13H3 Environmental Impact Assessment and Auditing
EESD13H3 Environmental Law, Policy and Ethics
ESTC34H3 Sustainability in Practice
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning

GGRB21H3 Political Ecology: Nature, Society and Environmental Change
(GGRC22H3) Political Ecology Theory and Applications
GGRC26H3 Geographies of Environmental Governance
GGRC28H3 Indigenous Peoples, Environment and Justice
GGRC44H3 Environmental Conservation and Sustainable Development
POLC53H3 Canadian Environmental Policy
POLD89H3 Global Environmental Politics
SOCC37H3 Environment and Society

3. Capstone and Applications (2.0 credits)
[ESTD16H3 Project Management in Environmental Studies *or* ESTD19H3 Risk]
ESTD17Y3 Cohort Capstone Course in Environmental Studies
ESTD18H3 Environmental Studies Seminar Series

Environmental Studies Courses

ESTB01H3 - Introduction to Environmental Studies

This course introduces the Environmental Studies major and the interdisciplinary study of the environment through a team-teaching format. Students will explore both physical and social science perspectives on the environment, sustainability, environmental problems and their solutions. Emphasis will be on critical thinking, problem solving, and experiential learning.

Prerequisite: Enrolment in the Major Program in Environmental Studies or Minor Program in Natural Sciences and Environmental Management
Breadth Requirements: Social & Behavioural Sciences

ESTB02H3 - Whose Land? Indigenous-Canada-Land Relations

Introduces students to the geography of Indigenous-Crown-Land relations in Canada. Beginning with pre-European contact and the historic Nation-to-Nation relationship, the course will survey major research inquiries from the Royal Commission on Aboriginal Peoples to Missing and Murdered Indigenous Women and Girls. Students will learn how ongoing land and treaty violations impact Indigenous peoples, settler society, and the land in Canada.

Same as GGRB18H3

Prerequisite: 4.0 credits, including at least 0.5 credit in ANT, CIT, GGR, HLT, IDS, POL or SOC
Exclusion: GGRB18H3
Enrolment Limits: 80

ESTB03H3 - Land

In this course students will learn about sustainability thinking, its key concepts, historical development and applications to current environmental challenges. More specifically, students will gain a better understanding of the complexity of values, knowledge, and problem framings that sustainability practice engages with through a focused interdisciplinary study of land.

Enrolment Limits: 50
Breadth Requirements: Social & Behavioural Sciences

ESTC34H3 - Sustainability in Practice

This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.
Same as EESC34H3

Prerequisite: EESA06H3 and an additional 9.5 credits
Exclusion: EESC34H3
Breadth Requirements: Natural Sciences

ESTC35H3 - Environmental Science and Technology in Society

In this course students will engage critically, practically and creatively with environmental controversies and urgent environmental issues from the standpoint of the sociology of science and technology (STS). This course will contribute to a better understanding of the social and political construction of environmental science and technology.

Prerequisite: ESTB01H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Environmental Studies Program. Additional students will be admitted as space permits.

ESTC36H3 - Knowledge, Ethics and Environmental Decision-Making

Most environmental issues have many sides including scientific, social, cultural, ethical, political, and economic. Current national, regional and local problems will be discussed in class to help students critically analyze the roots of the problems and possible approaches to decision-making in a context of pluralism and complexity.

Prerequisite: ESTB01H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Environmental Studies Program. Additional students will be admitted as space permits.

ESTD16H3 - Project Management in Environmental Studies

Students will select a research problem in an area of special interest. Supervision will be provided by a faculty member with active research in geography, ecology, natural resource management, environmental biology, or geosciences as represented within the departments. Project implementation, project monitoring and evaluation will form the core elements for this course.
Same as EESD16H3

Prerequisite: At least 14.5 credits
Exclusion: EESD16H3
Breadth Requirements: Natural Sciences

ESTD17Y3 - Cohort Capstone Course in Environmental Studies

This course is designed to provide a strong interdisciplinary focus on specific environmental problems including the socioeconomic context in which environmental issues are resolved. The cohort capstone course is in 2 consecutive semesters, providing final year students the opportunity to work in a team, as environmental researchers and consultants, combining knowledge and skill-sets acquired in earlier courses. Group research to local environmental problems and exposure to critical environmental policy issues will be the focal point of the course. Students will attend preliminary meetings schedules in the Fall semester.
Same as EESD17Y3

Prerequisite: At least 14.5 credits
Exclusion: EESD17Y3
Breadth Requirements: Natural Sciences

ESTD18H3 - Environmental Studies Seminar Series

This course will be organized around the DPES seminar series, presenting guest lecturers around interdisciplinary environmental themes. Students will analyze major environmental themes and prepare presentations for in-class debate.
Same as EESD18H3

Prerequisite: At least 14.5 credits
Exclusion: EESD18H3
Breadth Requirements: Natural Sciences

ESTD19H3 - Risk

A practical introduction to the concept of 'risk' as utilized in environmental decision-making. Students are introduced to risk analysis and assessment procedures as applied in business, government, and civil society. Three modules take students from relatively simple determinations of risk (e.g., infrastructure flooding) towards more complex, real-world, inclusive considerations (e.g., ecosystem impacts of climate change).

Prerequisite: 14.5 credits and STAB22H3 (or equivalent)
Breadth Requirements: Natural Sciences

Food Studies

Faculty List

- D. Bender, M.A., Ph.D. (New York), Professor
- M. Ekers, B.Sc., (Lakehead), M.E.S. (York), Ph.D. (Oxford), Assistant Professor (Department of Human Geography)
- R. Fulthorpe, B.Sc., M.Sc. (Toronto), Ph.D. (Carlton), Professor (Department of Physical and Environmental Sciences)
- R. Halpern, M.A. (Wisconsin), Ph.D. (Pennsylvania), Professor
- M. Isaac, Ph.D. (Toronto), Associate Professor (Department of Physical and Environmental Sciences)
- R. Isakson, Ph.D. (Massachusetts, Amherst), Associate Professor (Centre for Critical Development Studies)
- H. Kronzucker, B.A., B.Sc., M.D. (Wuerzburg/British Columbia), Ph.D. (British Columbia), Professor (Department of Biological Sciences)
- K. MacDonald, B.A., M.A., Ph.D. (Waterloo), Associate Professor (Department of Human Geography)
- L. Mortensen, B.A. (Cornell), M.A., Ph.D. (Indiana), Assistant Professor (Department of Anthropology)
- J. Pilcher, M.A. (New Mexico), Ph.D. (Texas Christian), Professor
- J. Sharma, M.A. (Delhi), M.Phil. (Delhi), Ph.D. (Cambridge), Associate Professor

Food Studies is an interdisciplinary field dedicated to understanding where our food comes from and how it shapes our bodies and identities. The Minor Program in Food Studies focuses on five basic themes: food systems, cultures, industries, health, and the environment while drawing from a number of disciplinary methodologies. Courses will span all of human history, from our foraging ancestors to the contemporary industrial food system, and around the world, examining diverse cultural traditions of farming, cooking, and eating.

Particular attention will be given to the material nature of food, the way it tastes and smells, and the changes caused by cooking, preservation, and rotting. Tutorials and seminars will meet in the Culinaria Kitchen Laboratory (SW313) to provide experiential learning and small group discussion.

The program will also leverage the university's urban location to use Scarborough as a classroom to understand the rich traditions and special challenges involved in feeding diasporic communities.

Food Studies provides both theoretical understanding and practical knowledge for professional careers in health care, business, communications, government service, non-governmental organizations, teaching, and community programs.
For updates and detailed information regarding Food Studies please visit the Food Studies Program website.

Food Studies Courses Table:

A-level	B-level	C-level	
FSTA01H3	ANTB64H3 BIOB38H3 EESB16H3 FSTB01H3 GASB74H3/HISB74H3 HISB14H3 HISB37H3	FSTC02H3 FSTC05H3/HISC05H3 FSTC37H3/HISC37H3 FSTC43H3/GGRC43H3 FSTC54H3/GASC54H3/HISC54H3 HISC04H3 HISC29H3 IDSC14H3 FSTC24H3/WSTC24H3	FSTD GASD HISD7 ANTD HISD7 HISD7

Notes:
1. Courses marked with an * are taught in the Culinaria Kitchen Laboratory.
2. Students are advised to consult the prerequisites for B-, C-, and D-level courses when planning their individual program.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Food Studies Programs

MINOR PROGRAM IN FOOD STUDIES (ARTS)

Undergraduate Advisor: 416-287-7184 Email: fst-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete at least 4.0 credits in Food Studies-focused courses*, including the following:

1. FSTB01H3 Methodologies in Food Studies

2. An additional 3.5 credits, of which at least 2.0 credits must be at the C- or D-level; among the D-level courses, at least 0.5 credit must come from courses taught in the Culinaria Kitchen Laboratory*

*See the Food Studies Courses Table for food-studies related courses and courses taught in the Culinaria Kitchen Laboratory.

Food Studies Courses

FSTA01H3 - Foods That Changed the World

This course introduces students to university-level skills through an exploration of the connections between food, environment, culture, religion, and society. Using a food biography perspective, it critically examines ecological, material, and political foundations of the global food system and how food practices affect raced, classed, gendered, and national identities.

Breadth Requirements: Social & Behavioural Sciences

FSTB01H3 - Methodologies in Food Studies

This course, which is a requirement in the Minor program in Food Studies, provides students with the basic content and methodological training they need to understand the connections between food, culture, and society. The course examines fundamental debates around food politics, health, culture, sustainability, and justice. Students will gain an appreciation of the material, ecological, and political foundations of the global food system as well as the ways that food shapes personal and collective identities of race, class, gender, and nation. Tutorials will meet in the Culinaria Kitchen Laboratory.

Enrolment Limits: 45
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students in the Minor program in Food Studies.

FSTC02H3 - Mondo Vino: The History and Culture of Wine Around the World

This course explores the history of wine making and consumption around the world, linking it to local, regional, and national cultures.

Recommended Preparation: At least 1.0 credit at the B-level or higher in FST courses
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students in the Food Studies Minor program.

FSTC05H3 - Feeding the City: Food Systems in Historical Perspective

This course puts urban food systems in world historical perspective using case studies from around the world and throughout time. Topics include provisioning, food preparation and sale, and cultures of consumption in courts, restaurants, street vendors, and domestic settings. Students will practice historical and geographical methodologies to map and interpret foodways.

Same as HISC05H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A or B-level in AFS, CLA, FST, GAS HIS or WST courses
Exclusion: HISC05H3
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

FSTC24H3 - Gender in the Kitchen

Across cultures, women are the main preparers and servers of food in domestic settings; in commercial food production and in restaurants, and especially in elite dining establishments, males dominate. Using agricultural histories, recipes, cookbooks, memoirs, and restaurant reviews and through the exploration of students' own domestic culinary knowledge, students will analyze the origins, practices, and consequences of such deeply gendered patterns of food labour and consumption.

Same as WSTC24H3

Prerequisite: 8.0 credits, including [0.5 credit at the A- or B-level in WST courses] and [0.5 credit at the A or B-level in FST courses]
Exclusion: WSTC24H3
Breadth Requirements: History, Philosophy & Cultural Studies

FSTC37H3 - Eating and Drinking Across the Americas

Students in this course will examine the development of regional cuisines in North and South America. Topics will include indigenous foodways, the role of commodity production and alcohol trade in the rise of colonialism, the formation of national cuisines, industrialization, migration, and contemporary globalization. Tutorials will be conducted in the Culinaria Kitchen Laboratory.

Same as HISC37H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses
Exclusion: HISC37H3
Breadth Requirements: History, Philosophy & Cultural Studies

FSTC43H3 - Social Geographies of Street Food

This course uses street food to comparatively assess the production of 'the street', the legitimation of bodies and substances on the street, and contests over the boundaries of, and appropriate use of public and private space. It also considers questions of labour and the culinary infrastructure of contemporary cities around the world.

Same as GGRC34H3

Prerequisite: FSTA01H3 or GGRA02H3 or GGRA03H3
Exclusion: GGRC41H3 (if taken in the 2019 Winter and 2020 Winter sessions), GGRC43H3
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

FSTC54H3 - Eating and Drinking Across Global Asia

Students examine historical themes for local and regional cuisines across Global Asia, including but not limited to Anglo-Indian, Arab, Bengali, Chinese, Himalayan, Goan, Punjabi, Japanese, Persian, Tamil, and Indo-Caribbean. Themes include religious rituals, indigenous foodways; colonialism, industrialization, labour, gender, class, migration, globalization, and media. Tutorials are in the Culinaria Kitchen Lab.

Same as GASC54H3 and HISC54H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level from AFS, CLA, FST, GAS, HIS or WST courses
Exclusion: GASC54H3, HISC54H3
Breadth Requirements: Social & Behavioural Sciences

FSTD10H3 - Food Writing and Photography

This course introduces students to a range of writing about food and culture, exposing them to different genres and disciplines, and assisting them to experiment with and develop their own prose. It also prompts students to think about photography and visual culture as both tools for documenting culinary practices and experiences, and as increasingly important adjuncts to contemporary food writing. The course is designed as a capstone offering in Food Studies, and as such, asks students to draw on their own expertise and awareness of food as a cultural vehicle to write in a compelling way about social dynamics, historical meaning, and - drawing specifically on the Scarborough experience - the diasporic imaginary.

Prerequisite: FSTB01H3
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Minor program in Food Studies. Additional students will be admitted as space permits.

French

Faculty List

- C. Beauquis, M.A., Ph.D. (Western), Associate Professor, Teaching Stream
- C. Bertrand-Jennings, L. ès L. (Paris), Ph.D. (Wayne State), Professor Emerita
- L.E. Doucette, B.A. (London), Ph.D. (Brown), Professor Emeritus
- S. Drouin, Ph.D. (Laval & Versailles/Saint-Quentin-en-Yvelines), Assistant Professor
- J. English, M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- K. McCrindle, M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- S. Mittler, M.A. (Toronto), Ph.D. (Strasbourg), Associate Professor
- F. Mugnier, M.A. (Lyon), Ph.D. (Grenoble), Senior Lecturer Emerita
- J. Ndayiragije, M.A. (Montreal-UQAM), Ph.D. (Montreal-UQAM), Associate Professor
- P. Riendeau, M.A., Ph.D. (Montreal), Associate Professor
- M. Tsimenis, B.A. (Athens), M.A., Ph.D. (Montreal), Associate Professor, Teaching Stream

Director: J. Ndayiragije Email: cfldirector@utsc.utoronto.ca
Associate Director: P. Riendeau Email: pascal.riendeau@utoronto.ca
For curriculum inquiries please contact the department's Program Coordinator: S. Ramrattan Email: sean.ramrattan@utoronto.ca

Studies in French allow for a wide range of interests: the enhancement of practical language skills, including translation, and pronunciation (FREB08H3, FREB17H3, FREB44H3, FREC18H3, FRED28H3); the study of how the language is structured (FREB45H3, FREC46H3, FREC47H3); the development of approaches to the teaching of French (FREB11H3, FREB20H3, FREC11H3); the exploration of the rich kinds of literature and cultures of French Canada, France and other parts of the francophone world (FREB22H3, FREB35H3, FREB70H3, FREC54H3, FREC63H3); and hands-on experiences in practical applications of French (FREC03H3, FREC10H3).

The following programs are offered at the University of Toronto Scarborough: the Specialist Program in French, the Major Program in French, and the Minor Program in French.

Combined Degree Programs, Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Guidelines for course selection
French programs normally begin with FREA01H3 Language Practice I, which serves to consolidate previous knowledge, and is the prerequisite for more advanced courses in all areas for most non-Francophone students. FREA01H3 is designed primarily for students with Grade 12 core French or equivalent competence. However, all students who are registering for French courses for the first time at the University of Toronto **must** first consult the French Language Self-Assessment questionnaire below to determine their level of study before registering for their first French course at UTSC.

Students' level of proficiency will be further assessed by the course instructor during the first week of classes and will be monitored throughout the term. If the course instructor feels that a student's proficiency is not appropriate for the level of the class (whether too high or too low), they will have the student removed from the class.

Note that the Language Practice courses FREA01H3 & FREA02H3, FREB01H3 & FREB02H3, FREC01H3 & FREC02H3, and FRED01H3 & FRED06H3 must be taken in sequence. An A-level FRE course should not be taken at the same time as, or after, a B-level FRE course. Please do not hesitate to consult the Program Coordinator or the Associate Director for further advice about course selection and programs.

The statements below reflect the majority of scenarios students present with respect to their current level of French. Students should find the scenario that closest relates to them and enroll in the appropriate course on ROSI/ACORN when the enrollment period opens.

Which statement best describes you?	**You should enroll in:**
I have received absolutely no formal education in French and I do not speak a word of French	FREA96H3 or FREA90Y3
I have completed Grade 9 core French	FREA97H3
I have completed Grade 10 core French	FREA98H3 or FREA91Y3
I have completed Grade 11 core French	FREA99H3
I have completed Grade 12 core French	FREA01H3
I have completed Grade 9, 10, or 11 French Immersion or Extended French	FREA01H3
I have taken a CEFR-based proficiency exam (like the DELF or the TCF) and I am certified at the international A1 level	FREA01H3

I have completed up to Grade 12 French Immersion or Extended French	FREB01H3
I have taken a CEFR-based proficiency exam (like the DELF or the TCF) and I am certified at the international A2 level	FREB01H3
I do not speak French at home, but I have completed my schooling in a Francophone School up to Grade 12	FREC01H3
I speak French at home with my family, but I did not do my schooling in a Francophone school	FREC01H3
I have taken a CEFR-based proficiency exam (like the DELF or the TCF) and I am certified at the international B1 level	FREC01H3
I was raised in a Francophone country, I speak French at home and I and did my schooling (Kindergarten to Grade 12, or the equivalent) in a Francophone school	FRED01H3
I have taken a CEFR-based proficiency exam (like the DELF or the TCF) and I am certified at the international B2, C1 or C2 level	Please contact the Associate Director for assistance

Please consult with the Associate Director of French if you have any further questions or would like further guidance on enrolment in the above-mentioned courses. Do note that during the first week of classes for each respective semester, the instructor reserves the right to remove students (with a recommendation) if their proficiency is above or below the expectations for the class. Please also note that students should begin their French studies in the Fall semester, with the course that best corresponds to their level.

Students of French have the opportunity to earn academic credit while studying in another province or country. For further information about this opportunity and about Letters of Permission, please visit the Studying at Other Universities website, and speak to our Undergraduate Assistant.

Students with Grade 12 French who took Summer Bursary Program courses prior to attending U of T must see the Associate Director of French during the first week of classes. After assessing the course, the Associate Director will advise the student as to the appropriate level in which to register. Failure to seek advice at that time may result in a loss of credit to which the student is entitled.

Students must consult the Associate Director of French about possible exclusions if they are considering registering in French courses in the Faculty of Arts and Science on the St. George campus or at the University of Toronto Mississauga. Failure to do so may leave the student short a course for degree credit and thus delay graduation and increase tuition fees.

Language Citation
U of T Scarborough offers a growing range of language opportunities and, as students seek international study, work opportunities and post-graduate study, they may be assisted by a notation of language proficiency. The Language Citation provides that notation. See the 6A.5 Language Citation section of the *Calendar* for more information.

St. George Equivalencies
FREA96H3 and FREA97H3 or FREA90Y3: FSL100H and FSL102H
FREA98H3 and FREA99H3 or FREA91Y3: FSL121Y
FREA01H3 and FREA02H3: FSL221Y
FREB01H3 and FREB02H3: FSL321Y
FREC01H3 and FREC02H3: FSL421Y
FRED01H3 and FRED06H3: FSL442H and FSL443H

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

French Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the

HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN FRENCH (ARTS)

For curriculum inquiries, contact the department's Undergraduate Assistant: cfl-ua@utsc.utoronto.ca

This program is designed to provide students with fundamental knowledge and grasp of principles and practices in core areas of French: language, grammar, linguistics, literature and culture.

Enrolment in the CTEP program in French has been suspended indefinitely. Students who enrolled at UTSC prior to the 2014 Summer Session should refer to the 2013/14 UTSC *Calendar*.

Program Requirements
This program requires 12.0 credits as follows including at least 4.0 credits at the C- or D-level of which at least 1.0 credit must be at the D-level:

1. 4.0 credits as follows:
FREA01H3 Language Practice I
FREA02H3 Language Practice II
FREB01H3 Language Practice III
FREB02H3 Language Practice IV
FREC01H3 Language Practice V
FREC02H3 Language Practice VI
FRED01H3 Language Practice VII: Written French
FRED06H3 Language Practice VIII: Oral French
(Except where substitution of other French credits is permitted for students with special proficiency in the French language)

2. 2.0 credits selected from:
FREB08H3 Practical Translation I
FREB44H3 Introduction to Linguistics: French Phonetics and Phonology (taught in French)
FREB45H3 Introduction to Linguistics: French Morphology and Syntax (taught in French)
FREB46H3 History of the French Language (taught in French)
FREC12H3 Semantics: The Study of Meaning (taught in English)
FREC46H3 Syntax II (taught in English)
FREC47H3 Pidgin and Creole Languages (taught in English)
FREC48H3 Sociolinguistics of French (taught in French)
(FRED49H3) French Semantics

3. 1.5 credits selected from:
FREB22H3 The Society and Culture of Québec
FREB27H3 Modern France

FREB28H3 The Francophone World
FREB70H3 Cinema of the French-Speaking World
FREB84H3 Folktale, Myth and the Fantastic in the French-Speaking World
FREC54H3 Paris Through the Ages
FREC83H3 Cultural Identities and Stereotypes in the French-Speaking World

4. 3.0 credits in literature which must include:
FREB50H3 Introduction to French Literature I
FREB35H3 Francophone Literature
and
1.0 credit in literature from Québec, selected from the following:
FREB36H3 The 20th Century Québec Novel
FREB37H3 Contemporary Québec Drama
FREC38H3 Topics in the Literature of Québec
FRED14H3 Advanced Topics in the Literature of Québec
and
1.0 credit in French Literature, selected from the following:
FREB51H3 Literary History in Context: From the Middle Ages to the 17th Century
FREB55H3 Literary History in Context: 18th and 19th Centuries
FREC57H3 French Fiction of the 19th Century
FREC58H3 Literature of the Ancient Regime
FREC63H3 Topics in French Literature: Encountering Foreign Cultures: Travel Writing in France
FREC64H3 French Fiction of the 20th and 21st Centuries
FRED13H3 Advanced Topics in French Literature

5. 1.5 additional credits in French from either the above-mentioned courses (where not already taken) or from the list below:
FREB08H3 Practical Translation I
FREB11H3 French Language in the School System
FREB17H3 Spoken French: Conversation and Pronunciation
FREB18H3 Business French
FREB20H3 Teaching Children's Literature in French
FREC11H3 Teaching French as a Second Language
FREC18H3 Translation for Business and Professional Needs

Notes:
1. Specialist students (including CTEP) cannot obtain more than 0.5 credit (out of 12.0) by taking a course in English. This does not include CTEP courses taught in English through OISE.
2. At the A-level, only FREA01H3 and FREA02H3 may be counted towards a French Program.

SPECIALIST (CO-OPERATIVE) PROGRAM IN FRENCH (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in French is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to French upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry to the program are 4.0 credits, including FREA01H3 and FREA02H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in French.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in French and have completed at least 9.0 credits including, FREB01H3 and FREB02H3. In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN FRENCH (ARTS)

For curriculum inquiries, contact the department's Undergraduate Assistant: cfl-ua@utsc.utoronto.ca

Program Requirements
Students must complete 8.0 credits in French, of which at least 2.0 credits must be at the C- or D-level, including:

1. 3.5 credits as follows:
FREA01H3 Language Practice I
FREA02H3 Language Practice II
FREB01H3 Language Practice III
FREB02H3 Language Practice IV
FREC01H3 Language Practice V
FREC02H3 Language Practice VI
FRED01H3 Language Practice VII: Written French
(Students with special proficiency in the French language may substitute other FRE courses with the permission of the Associate Chair)

2. 1.0 credit in Linguistics:
Linguistics courses taught in French are:
FREB08H3 Practical Translation I
FREB44H3 Introduction to Linguistics: French Phonetics and Phonology
FREB45H3 Introduction to Linguistics: French Morphology and Syntax
FREB46H3 History of the French Language
FREC48H3 Sociolinguistics of French

Linguistics courses taught in English are:
FREC12H3 Semantics: The Study of Meaning
FREC46H3 Syntax II
FREC47H3 Pidgin and Creole Languages

3. 1.0 credit in Culture:
Culture courses are:
FREB22H3 The Society and Culture of Québec
FREB27H3 Modern France

FREB28H3 The Francophone World
FREB70H3 Cinema of the French-Speaking World
FREB84H3 Folktale, Myth and the Fantastic in the French-Speaking World
FREC54H3 Paris Through the Ages
FREC83H3 Cultural Identities and Stereotypes in the French-Speaking World

4. 2.5 additional credits in French as follows:
FREB50H3 Introduction to Literature in French I
and
1.0 credit in French Literature taken from the following:
FREB35H3 Francophone Literature
FREB36H3 The 20th Century Québec Novel
FREB37H3 Contemporary Québec Drama
FREB51H3 Literary History in Context: From the Middle Ages to the 17th Century
FREB55H3 Literary History in Context: 18th and 19th Centuries
FREC38H3 Topics in the Literature of Québec
FREC57H3 French Fiction of the 19th Century
FREC58H3 Literature of the Ancien Regime
FREC63H3 Topics in French Literature: Encountering Foreign Cultures: Travel Writing in French
FREC64H3 French Fiction of the 20th and 21st Centuries
FRED13H3 Advanced Topics in French Literature
FRED14H3 Advanced Topics in the Literature of Québec
and
1.0 credit in French courses not already taken

Note: At the A-level, only FREA01H3 and FREA02H3 may be counted towards a French Program.

Note: For Co-op opportunities related to the Major Program in French please see the Humanities and Social Sciences Co-operative section in this *Calendar*.

Note: Major students cannot obtain more than 0.5 credit (out of 8.0 credits) by taking a course taught in English.

MAJOR (CO-OPERATIVE) PROGRAM IN FRENCH (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in French is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to French upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including FREA01H3 and FREA02H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject

POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in French.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in French and have completed at least 9.0 credits, including FREB01H3 and FREB02H3. In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN FRENCH (ARTS)

For curriculum inquiries, contact the department's Undergraduate Assistant: cfl-ua@utsc.utoronto.ca

Program Requirements

Students must complete 4.0 credits in total, of which 1.0 must be at the C-level or higher.

1. 2.0 credits from the following:
FREA01H3 Language Practice I
FREA02H3 Language Practice II
FREB01H3 Language Practice III
FREB02H3 Language Practice IV
FREC01H3 Language Practice V
FREC02H3 Language Practice VI
FRED01H3 Language Practice VII: Written French
FRED06H3 Language Practice VIII: Oral French

2. Additional 2.0 credits in French

Notes:
1. At the A-level, only FREA01H3 and FREA02H3 may be counted towards the program completion requirements.
2. Where student's proficiency in French is advanced enough to skip some or all of the courses in requirement 1, substitutions can be made in consultation with the Associate Director of French.

French Courses

FREA01H3 - Language Practice I

This course is designed to consolidate the language skills necessary for higher-level French courses through an action-oriented approach to language teaching and learning. Students will improve their communicative language competencies (listening, reading, speaking and writing) by engaging in task-based activities in real-world, contextual situations.

By the end of FREA01H3 and FREA02H3, students will have completed the level A2 of the Common European Framework of Reference.

Prerequisite: Grade 12 French or FREA91Y3 or FREA99H3 or equivalent
Exclusion: Native or near-native fluency in French, (FSL161Y), (FSL181Y), FSL221Y
Breadth Requirements: Arts, Literature & Language
Note: FREA01H3 is a prerequisite for all B-level French courses.

FREA02H3 - Language Practice II

A continuation of FREA01H3. Students will continue to improve their communicative language competencies (listening, reading, speaking and writing) by engaging in task-based activities in real-world, contextual situations.

By the end of FREA01H3 and FREA02H3, students will have completed the level A2 of the Common European Framework of Reference.

Prerequisite: FREA01H3
Exclusion: Native or near-native fluency in French; (FREA10Y3), (FSL161Y), (FSL181Y), FSL221Y
Breadth Requirements: Arts, Literature & Language
Note: FREA02H3 is a prerequisite for all B-level French courses.

FREA90Y3 - Intensive Introductory French

This course is for students with no prior knowledge of French. Based on a communicative approach, it will help students learn French vocabulary, understand grammatical structures and concepts, and gain oral and written communication skills. Students will develop their listening, speaking, reading and writing skills through a variety of contextually specific activities. Class periods will include explanations of grammatical concepts, as well as communicative and interactive exercises. In addition to preparation at home, regular class attendance is paramount for student success.

Exclusion: (LGGA21H3), (LGGA22H3), (LGGB23H3), (LGGB24H3), FREA96H3, FREA97H3, [FSL100H1 or equivalent], or any prior knowledge of French
Breadth Requirements: Arts, Literature & Language
Note: 1. This course does not satisfy any French program requirements. It is a 6 week, 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute. Students will be expected to attend up to 12 hours of class per week.
2. Priority will be given to students in the Specialist Co-op program in Management and International Business (MIB), Specialist/Specialist Co-op and Major/Major Co-op programs in Linguistics, and Specialist Co-op programs in International Development Studies (both BA and BSc).

FREA91Y3 - Intensive Intermediate French

This course is for students who have studied some French in high school or who have some prior knowledge of French, and who wish to bring their proficiency up to the level required for UTSC French programs. Students will continue to improve their listening, speaking, reading and writing skills through a variety of contextually specific activities. Class periods will include explanations of grammatical concepts, as well as communicative and interactive exercises. In addition to preparation at home, regular class attendance is paramount in order to succeed in the class.

Prerequisite: FREA90Y3 or FREA97H3
Exclusion: FREA98H3, FREA99H3, [LGGB23H3 or equivalent], or FSL121Y1
Breadth Requirements: Arts, Literature & Language
Note: 1.This course does not satisfy any French program requirements. Students who complete this course may continue into FREA01H3. This is a 6 week, 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute. Students will be expected to attend up to 12 hours of class per week.
2. Priority will be given to students in the Specialist program in Management and International Business (MIB), Specialist/Specialist Co-op and Major/Major Co-op programs in Linguistics, and Specialist Co-op programs in International Development Studies (both BA and BSc).

FREA96H3 - Introductory French I

An intensive basic course in written and spoken French; comprehension, speaking, reading and writing.
This intensive, practical course is designed for students who have no previous knowledge of French.

Note: This course **does not** satisfy any French program requirements.

Exclusion: (LGGA21H3), (LGGA22H3), (LGGB23H3), (LGGB24H3), FSL100H or equivalent
Enrolment Limits: 30 per section
Breadth Requirements: Arts, Literature & Language

FREA97H3 - Introductory French II

An intensive course in written and spoken French; a continuation of FREA96H3.
This course is designed for students who have some knowledge of French. It continues the basic, comprehensive training in both written and oral French begun in FREA96H3, using the second half of the same textbook.

Notes: This course **does not** satisfy any French program requirements.

Prerequisite: FREA96H3 or (LGGA21H3)
Exclusion: (LGGA22H3), FSL102H or equivalent.
Enrolment Limits: 30 per section
Breadth Requirements: Arts, Literature & Language

FREA98H3 - Intermediate French I

Intended for students who have studied some French in high school or have some knowledge of French. Offers a review of all basic grammar concepts and training in written and spoken French. Reinforces reading comprehension, written skills and oral/aural competence.

Notes: This course **does not** satisfy any French program requirements.

Prerequisite: FREA97H3 or (LGGA22H3)
Exclusion: FSL121Y, (LGGB23H3) or equivalent
Enrolment Limits: 30 per section
Breadth Requirements: Arts, Literature & Language

FREA99H3 - Intermediate French II

Intended for students who have some knowledge of French and who wish to bring their proficiency up to the level of normal University entrance; a continuation of FREA98H3; prepares students for FREA01H3. Offers training in written and spoken French, reinforcing reading comprehension, written skills and oral/aural competence.

Notes: This course **does not** satisfy any French program requirements.

Prerequisite: FREA98H3, (LGGB23H3) or equivalent.
Exclusion: Grade 12 French, (LGGB24H3), FSL121Y or equivalent. Cannot be taken concurrently or after FREA01H3.
Enrolment Limits: 30 per section
Breadth Requirements: Arts, Literature & Language

FREB01H3 - Language Practice III

This course is designed to reinforce and develop fluency, accuracy of expression and style through an action-oriented approach to language teaching and learning. Students will improve their communicative language competencies (listening, reading, speaking and writing) by engaging in task-based activities in real-world, contextual situations.

By the end of FREB01H3 and FREB02H3, students will have completed the level B1 of the Common European Framework of Reference.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: (FSL261Y), (FSL281Y), FSL321Y, (FSL331Y), (FSL341Y) or equivalent or native proficiency
Breadth Requirements: Arts, Literature & Language

FREB02H3 - Language Practice IV

A continuation of FREB01H3. Students will continue to develop their accuracy of expression and improve their fluency by engaging in activities in real-world, contextual situations.

By the end of FREB01H3 and FREB02H3, students will have completed the level B1 of the Common European Framework of Reference.

Prerequisite: FREB01H3
Exclusion: (FSL261Y), (FSL281Y), FSL321Y, (FSL331Y), (FSL341Y) or equivalent or native proficiency
Breadth Requirements: Arts, Literature & Language

FREB08H3 - Practical Translation I

An introduction to translation. The course will use a wide selection of short texts dealing with a variety of topics. Grammatical and lexical problems will be examined with special attention to interference from English.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: Native proficiency. FREB08H3 may not be taken after or concurrently with FREC18H3, FRE480Y or FRE481Y.
Breadth Requirements: Arts, Literature & Language

FREB11H3 - French Language in the School System

This course is intended for students considering a career in language teaching.
It involves a series of seminars as well as preparation for observations in local schools throughout the duration of the course.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Breadth Requirements: Arts, Literature & Language
Note: Students taking this course will need to have a police check completed with the police board in the jurisdiction for which they reside. Completed police checks must be submitted to the instructor during the first day of class.

FREB17H3 - Spoken French: Conversation and Pronunciation

Designed for students who wish to improve their speaking abilities. The course examines the French sound system with the goal of improving students' pronunciation in reading and everyday speech. Theoretical concepts are put into practice via structured exercises and various dialogues involving useful colloquial expressions.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent
Exclusion: FREC01H3, FREC02H3, FRED01H3, FRED06H3; and any Francophone students
Breadth Requirements: Arts, Literature & Language

FREB18H3 - Business French

The French language in a commercial or economic context. Of interest, among others, to students in French, Business, Accounting, Management, and Economics, this course emphasizes commercial writing techniques and exercises that include the vocabulary and structures of business language.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: FSL366H
Breadth Requirements: Arts, Literature & Language

FREB20H3 - Teaching Children's Literature in French

An analysis of the varied forms and contents of children's literature written in French. The course examines different texts in terms of target age, pictorial illustrations, didactic bent, socio-cultural dimensions etc., focusing on, among other things, fairy tales urban and otherwise, cartoons, detective stories, adventure tales, and art, science and history books.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: FRE385H
Breadth Requirements: Arts, Literature & Language

FREB22H3 - The Society and Culture of Québec

A study of the historical, cultural and social development of Québec society from its origins to today. Aspects such as history, literature, art, politics, education, popular culture and cinema will be examined. Emphasis will be placed on the elements of Québec culture and society that make it a distinct place in North America.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Breadth Requirements: History, Philosophy & Cultural Studies

FREB27H3 - Modern France

An examination of political, social and cultural developments in France in the last hundred years. Topics will include: the impact of two World Wars; the decolonization process; the European Community; the media; the educational system; immigration etc.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Breadth Requirements: History, Philosophy & Cultural Studies

FREB28H3 - The Francophone World

An examination of historical, political and cultural realities in different parts of the Francophone world excluding France and Canada. Topics to be discussed will include slavery, colonization, de-colonization and multilinguism.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: FSL362Y
Breadth Requirements: History, Philosophy & Cultural Studies

FREB35H3 - Francophone Literature

A study of a variety of literary texts from the French-speaking world, excluding France and Canada. Attention will be given to the cultural and historical background as well as to the close study of works from areas including the West Indies, North and West Africa.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: FRE332H
Breadth Requirements: Arts, Literature & Language

FREB36H3 - The 20th Century Quebec Novel

A study of some of the major novels written in Québec since 1945. The course will focus on the evolution of the novelistic form and its relevance within modern Western literature. We will also examine the link between the novels studied and the transformation of Québec society.

Prerequisite: FREA01H3 and FREA02H3
Exclusion: FRE210Y
Breadth Requirements: Arts, Literature & Language

FREB37H3 - Contemporary Quebec Drama

An examination of contemporary Québec theatre. We will study texts representative of a variety of dramatic styles. The focus will be primarily on dramatic texts; significant theatrical performances, however, will also be considered.

Prerequisite: FREA01H3 and FREA02H3
Exclusion: FRE312H
Breadth Requirements: Arts, Literature & Language

FREB44H3 - Introduction to Linguistics: French Phonetics and Phonology

An examination of the sound system of modern French. The course will acquaint student with acoustic phonetics and the basic concept and features of the French phonetic system. Phonological interpretation of phonetic data (from speech samples) and prosodic features such as stress and intonation will be examined.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: (FRE272Y), FRE272H, FRE274H
Breadth Requirements: Arts, Literature & Language

FREB45H3 - Introduction to Linguistics: French Morphology and Syntax

An examination of the internal structure of words and sentences in French.
Covered are topics including word formation, grammatical categories, syntactic structure of simple and complex clauses, and grammatical relations of subject, predicate and complement. This course complements (FREB43H3) and FREB44H3.

Prerequisite: [FREA01H3 and FREA02H3]
Exclusion: (FRE272Y), FRE272H, FRE274H
Breadth Requirements: Arts, Literature & Language

FREB46H3 - History of the French Language

An introduction to the origin and development of French, from the Latin of the Gauls to current varieties of the language. The course examines the internal grammatical and phonological history undergone by the language itself as well as the external history which includes ethnic, social, political, technological, and cultural changes.

Prerequisite: FREA01H3 and FREA02H3
Exclusion: FRE273H, FRE372H, FRE373H
Breadth Requirements: Arts, Literature & Language

FREB50H3 - Introduction to Literature in French I

A study of representative texts from the three major literary genres (fiction, drama, poetry). The course will introduce students to the critical reading of literary texts in French; students will acquire the basic concepts and techniques needed to analyze literature.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Corequisite: FREB01H3
Exclusion: FRE240Y
Breadth Requirements: Arts, Literature & Language
Note: FREB50H3 is a pre-requisite for all other French Literature courses at the B-, C-, and D-level.

FREB51H3 - Literary History in Context: From the Middle Ages to the 17th Century

A study of the evolution of the major trends of French literature from the Middle Ages to the 17th century through representative texts (short novels, poetry and short stories) selected for their historical relevance and literary importance.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: FRE250Y
Breadth Requirements: Arts, Literature & Language

FREB55H3 - Literary History in Context: 18th and 19th Centuries

A study of the evolution of the major trends of French literature from the 18th and 19th centuries through representative texts (short stories, poetry and novels), selected for their historical relevance and literary importance. Students will also learn to use some tools required for text analysis and will apply them in context.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Exclusion: FRE250Y
Breadth Requirements: Arts, Literature & Language

FREB70H3 - Cinema of the French-Speaking World

An examination of films that have had a major impact on the development of the French-Speaking world cinema.
We will study motion pictures from France, Québec and other parts of the francophone world that have made a significant contribution to both modern cinematography and Western culture.

Prerequisite: FREA01H3 and FREA02H3 or equivalent.
Breadth Requirements: Arts, Literature & Language

FREB84H3 - Folktale, Myth and the Fantastic in the French-Speaking World

An examination of the imagined/imaginative in cultures and belief systems in the francophone world. Myths and folktales from Canada, the U.S., French Guyana, North and West Africa will be examined in terms of form, function, psychological dimensions and cultural interpretations of, for instance, life, death, food and individualism.

Prerequisite: [FREA01H3 and FREA02H3] or equivalent.
Breadth Requirements: Arts, Literature & Language

FREC01H3 - Language Practice V

This course is designed to hone students' reading, writing, listening and speaking skills through group work, written projects, oral presentations and robust engagement with authentic materials. Students will improve their communicative language competencies by participating in activities in real-world, contextual situations.

By the end of FREC01H3 and FREC02H3, students will be closer to the level B2 of the Common European Framework of Reference.

Prerequisite: [FREB01H3 and FREB02H3] or equivalent.
Exclusion: (FSL361Y), (FSL382H), (FSL383H), FSL421Y, FSL431Y or equivalent.
Breadth Requirements: Arts, Literature & Language

FREC02H3 - Language Practice VI

A continuation of FREC01H3. Students will continue to hone their language competencies by participating in activities in real-world, contextual situations and by engaging with authentic materials.

By the end of FREC01H3 and FREC02H3, students will be closer to the level B2 of the Common European Framework of Reference.

Prerequisite: FREC01H3
Exclusion: (FSL361Y), (FSL382H), (FSL383H), FSL421Y, FSL431Y or equivalent
Breadth Requirements: Arts, Literature & Language

FREC03H3 - French in Action I: Practical Workshop in Theatre

This is a practical application of French in which students engage in writing and performing their own short play. Students will study French and Québécois plays, participate in acting and improvisation workshops, engage in a collaborative writing assignment, rehearse and produce their play and create a promotional poster. The final project for the course is a performance of the play.

Prerequisite: FREB02H3 and FREB50H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language
Note: Students will meet the professors during the first week of class to have their French oral proficiency assessed. Students who are not at the appropriate level may be removed from the course.

FREC10H3 - Community-Engaged Learning in the Francophone Community

In this Community-Engaged course, students will have opportunities to strengthen their French skills (such as communication, interpersonal, intercultural skills) in the classroom in order to effectively complete a placement in the GTA's Francophone community. By connecting the course content and their practical professional experience, students will gain a deeper understanding of the principles of experiential education: respect, reciprocity, relevance and reflection; they will enhance and apply their knowledge and problem-solving skills; they will develop their critical thinking skills to create new knowledge and products beneficial to the Francophone community partners.

Prerequisite: FREC01H3 or equivalent. For students who have not taken FRE courses at UTSC, or students who have advanced French proficiency, they must pass the international B1 level of a CEFR-based proficiency exam.
Corequisite: FREC02H3
Exclusion: CTLB03H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language
Note: Ideally, students will complete FREC02H3 concurrently with FREC10H3, rather than prior to FREC10H3.

FREC11H3 - Teaching French as a Second Language

A study of different theories of language teaching and learning and their application to the teaching of French as a second language.

Prerequisite: [[FREB01H3 and FREB02H3] or equivalent]] and FREB11H3
Exclusion: FRE384H
Breadth Requirements: Arts, Literature & Language

FREC12H3 - Semantics: The Study of Meaning

An introduction to the role of meaning in the structure, function and use of language. Approaches to the notion of meaning as applied to English and French data will be examined.
Same as LINC12H3
Taught in English

Prerequisite: LINA01H3 or [FREB44H3 and FREB45H3]
Exclusion: LINC12H3, FRE386H, LIN241H3, LIN341H, (FREC49H3), (FRED49H3)
Breadth Requirements: History, Philosophy & Cultural Studies

FREC18H3 - Translation for Business and Professional Needs

Practice in translating commercial, professional and technical texts. Students will have the opportunity to widen their knowledge of the vocabulary and structures particular to the language of business as well as to such fields as industrial relations, insurance, software, health care, social work and finance.

Prerequisite: [FREB01H3 and FREB02H3] and [FREB08H3 or (FREB09H3)] or equivalent.
Exclusion: FREC18H3 may not be taken after or concurrently with FRE480Y or FRE481Y.
Breadth Requirements: Arts, Literature & Language

FREC38H3 - Topics in the Literature of Quebec

This course considers how Québec's literature, especially the novel, has changed since 1980. It focuses on the literary forms of the novel, the dialogues between novels and texts from different literatures (Anglo-Canadian, French, American), and various elements related to the contemporary or the postmodern.

Prerequisite: FREB50H3 or equivalent.
Breadth Requirements: Arts, Literature & Language

FREC46H3 - Syntax II

Core issues in syntactic theory, with emphasis on universal principles and syntactic variation between French and English.
Same as LINC11H3. Taught in English.

Prerequisite: FREB45H3 or LINB06H3
Exclusion: FRE378H, LIN232H, LIN331H, LINC11H3
Breadth Requirements: Arts, Literature & Language

FREC47H3 - Pidgin and Creole Languages

A study of pidgin and Creole languages worldwide. The course will introduce students to the often complex grammars of these languages and examine French, English, Spanish and Dutch-based Creoles, as well as regional varieties. It will include some socio-historical discussion.
Same as LINC47H3
Taught in English

Prerequisite: [LINA01H3 and LINA02H3] or [FREB44H3 and FREB45H3]
Exclusion: LINC47H3
Breadth Requirements: Arts, Literature & Language

FREC48H3 - Sociolinguistics of French

An exploration of the relationship between language and society within a francophone context. We examine how language use is influenced by social factors. Topics include dialect, languages in contact, language shift, social codes and pidgin and Creole languages. Fieldwork is an integral part of this course.

Prerequisite: [[FREB01H3 and FREB02H3] or equivalent] and [one of FREB44H3, FREB45H3, FREB46H3]
Exclusion: LINB20H3, (LINB21H3)
Breadth Requirements: Social & Behavioural Sciences

FREC54H3 - Paris through the Ages

This course is designed to provide students with an introduction to Paris' great monuments, buildings, streets, and neighbourhoods through art history (painting, sculpture, and architecture), music, and literature from the Middle ages to the beginning of the 20th century.

Prerequisite: FREB27H3 or FREB50H3
Breadth Requirements: History, Philosophy & Cultural Studies

FREC57H3 - French Fiction of the 19th Century

This course will examine themes and literary techniques in various forms of narrative prose from across the 19th century. Attention will also be paid to the historical and sociocultural context in which these works were produced.

Prerequisite: [FREB01H3 and FREB02H3] and [FREB50H3 or equivalent]
Exclusion: (FREC56H3)
Breadth Requirements: Arts, Literature & Language

FREC58H3 - Literature of the Ancien Regime

An introduction to major French writers from the 16th century (Rabelais, Montaigne), 17th century (Corneille, Molière, La Fontaine) or 18th century (Voltaire, Rousseau, Diderot). Students will learn skills required for textual analysis and will apply them to the cultural and intellectual context of literature from the Ancien Régime.

Prerequisite: FREB50H3
Exclusion: FRE319H and FRE320H
Breadth Requirements: Arts, Literature & Language

FREC63H3 - Topics in French Literature: Encountering Foreign Cultures: Travel Writing in French

An examination of the trends and attitudes embodied in travel writing from the early 20th century to now. The course considers aspects of exoticism, imperialism and ethnography as well as more contemporary cultural tourism, heritage and memory tourism, eco-tourism etc. Selections are drawn from commentators such as Gide, Camus, Kessel, Hubler and Belkaïd.

Prerequisite: [[FREB01H3 and FREB02H3] and [FREB50H3 or equivalent]]
Breadth Requirements: Arts, Literature & Language

FREC64H3 - French Fiction of the 20th and 21st Centuries

This course will examine French texts, such as comic writing, women's writing, postmodern and postcolonial works, autobiographical works, and fantasy.

Prerequisite: FREB50H3 or equivalent
Exclusion: (FREC61H3)
Breadth Requirements: Arts, Literature & Language

FREC83H3 - Cultural Identities and Stereotypes in the French-Speaking World

The history and development of perceptions of "us" and "them" in France and the francophone world. The course examines language and culture, and the historic role of Eurocentrism and colonialism in the construction of cultural stereotypes. "Others" considered include the "noble savage", the "Oriental", the "country bumpkin" and the "foreigner". This course was formerly taught in English, but will now be taught in French.

Prerequisite: [FREB01H3 and FREB02H3] or equivalent, and one of FREB22H3, FREB27H3 and FREB28H3 or equivalent.
Breadth Requirements: History, Philosophy & Cultural Studies

FRED01H3 - Language practice VII: Written French

A continuation of FREC01H3 and FREC02H3. Through an action-oriented approach, students will continue to hone their language competencies by participating in task-based activities in real-world, contextual situations and by engaging with authentic materials. Students will also work on developing the necessary techniques for the production of various types of discourse.

By the end of FRED01H3, students will be at the level B2 of the Common European Framework of Reference.

Prerequisite: FREC02H3 or equivalent.
Exclusion: FSL431Y, FSL461Y, FSL442H or equivalent
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

FRED02H3 - Supervised Reading

These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Student and instructor work out in consultation the course's objectives, content, bibliography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Discipline. Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Discipline Representative or Program Supervisor for guidance.

Prerequisite: 1.0 credit at the C-level in FRE courses

FRED03H3 - Supervised Reading

These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Student and instructor work out in consultation the course's objectives, content, bibliography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Discipline. Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Discipline Representative or Program Supervisor for guidance.

Prerequisite: 1.0 credit at the C-level in FRE courses

FRED04H3 - Supervised Reading

These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Student and instructor work out in consultation the course's objectives, content, bibliography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Discipline. Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Discipline Representative or Program Supervisor for guidance.

Prerequisite: 1.0 credit at the C-level in FRE courses

FRED05H3 - Supervised Reading

These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Student and instructor work out in consultation the course's objectives, content, bibliography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Discipline. Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Discipline Representative or Program Supervisor for guidance.

Prerequisite: 1.0 credit at the C-level in FRE courses

FRED06H3 - Language Practice VIII: Oral French

This is an advanced language course designed for students who want to consolidate their oral/aural skills. In-class discussions, debates and oral presentations will enhance their fluency, expand their vocabulary and improve their pronunciation.

Prerequisite: FREC02H3 or equivalent.
Exclusion: FSL443H or equivalent
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

FRED07H3 - Supervised Reading

These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Student and instructor work out in consultation the course's objectives, content, bibliography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Discipline. Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Discipline Representative or Program Supervisor for guidance.

Prerequisite: 1.0 credit at the C-level in FRE courses

FRED13H3 - Advanced Topics in French Literature

Topics will vary from year to year. This seminar provides intensive study of a specific aspect of French literature from France. Emphasis may be placed on the importance of a particular movement or theme that will be explored in a variety of genres (novels, short stories, essays, autobiographies) and different authors. This course will require student participation and will involve a major paper.

Prerequisite: FREB50H3 and at least 0.5 credit at the C-level in FRE literature courses
Breadth Requirements: Arts, Literature & Language

FRED14H3 - Advanced Topics in the Literature of Quebec

The focus of this seminar will vary from year to year and may examine one specific advanced aspect of Québec's literature by studying a variety of genres (novels, short stories, essays, autobiographies). The course will include questions of identity, the Self, migration, etc. It may also explore literatures from culturally-diverse communities based in Québec.

Prerequisite: FREB50H3 and [0.5 credit in Quebec literature and 0.5 credit in French literature, one of which must be at the C-level]
Exclusion: (FRED12H3)
Breadth Requirements: Arts, Literature & Language

FRED28H3 - Special Topics in Translation

A continuation of FREB08H3 and FREC18H3 involving translation of real-world documents and practical exercises as well as a theoretical component. Students will use a variety of conceptual and practical tools to examine problems that arise from lexical, syntactic and stylistic differences and hone skills in accessing and evaluating both documentary resources and specific professional terminology. The course includes two field trips. Different translation fields (e.g. Translation for Government and Public Administration, or Translation for Medicine and Health Sciences) will be chosen from year to year.

Prerequisite: FREC18H3 or equivalent
Breadth Requirements: Arts, Literature & Language

FRED90Y3 - Supervised Reading

These courses offer the student an opportunity to carry out independent study of an advanced and intensive kind, under the direction of a faculty member. Student and instructor work out in consultation the course's objectives, content, bibliography, and methods of approach. The material studied should bear a clear relation to the student's previous work, and should differ significantly in content and/or concentration from topics offered in regular courses. In applying to a faculty supervisor, students should be prepared to present a brief written statement of the topic they wish to explore. Final approval of the project rests with the French Discipline. Students are advised that they must obtain consent from the supervising instructor before registering for these courses. Interested students should contact the Discipline Representative or Program Supervisor for guidance.

Prerequisite: One B-level course in the group FREB01H3-FREB84H3, except FREB17H3 and FREB18H3.

Geography

Faculty List

- H. Arik, B.A. (Bogazici University), M.A. (Central European University), Ph.D. (York)
- G. Brauen, B.Sc (New Brunswick), M.C.S, Ph.D. (Carleton), Associate Professor, Teaching Stream
- M. Buckley, B.Sc., M.E.S. (York), Ph.D. (Oxford), Assistant Professor
- M. F. Bunce, B.A. (Sheffield), Ph.D. (Sheffield), Associate Professor Emeritus
- S.C. Bunce, B.A. (Guelph), M.E.S. Pl. (York), Ph.D. (York), Associate Professor
- M. Ekers, B.Sc., (Lakehead), M.E.S. (York), Ph.D. (Oxford), Assistant Professor
- S. Farber, B.A. (McGill), M.S.A (Ryerson), Ph.D. (McMaster), Assistant Professor
- M. Hunter, B.A. (Sussex), M.A. (Univ. of Natal), Ph.D. (Univ. California Berkeley), Associate Professor
- R. Goffe, B.Arch. (Temple University), Ph.D. (City University of New York), Assistant Professor
- C. Higgins, B.A. (Brock), M.A. (McMaster), Ph.D. (McMaster), Assistant Professor
- T. Kepe, B.Agric. (Fort Hare), M.Sc. (Guelph), Ph.D. (Western Cape), Professor
- K. MacDonald, B.A., M.A., Ph.D. (Waterloo), Associate Professor
- J. R. Miron, B.A. (Queen's), M.A. (Penn.), M.Sc. (pl.), Ph.D. (Toronto), Professor
- S. Mollett, B.A., M.E.S. (York), Ph.D. (Toronto), Associate Professor
- R. Narayanareddy, MESc. (Yale University), Ph.D. (Minnesota), Assistant Professor
- N. Oswin, B.A. (Toronto), M.A. (Dalhousie), Ph.D. (University of British Columbia), Associate Professor
- E.C. Relph, B.A., M.Phil. (London), Ph.D. (Toronto), Professor Emeritus
- A. Sorensen, B.F.A. (Nova Scotia College of Art and Design), M.Sc., Ph.D. (London), Professor

Chair: T. Kepe
For curriculum inquiries please contact the Geography Program Advisor. Email: ggr-advisor@utsc.utoronto.ca

Geography is a broad-ranging subject. As a social science, it is concerned with the spatial patterns of human activity and the character of regions and places. It is a subject that is well placed to explore the complex relationships between society and the natural environment as well as the social and economic problems of human land use and settlement. It, therefore, complements other programs such as: City Studies, Environmental Science, Political Science, Sociology, Anthropology, Economics for Management Studies and International Development Studies. Geography courses are also listed as options in several UTSC programs including City Studies, Economics, Environmental Studies, Health Studies, International Development Studies, Public Policy and Women's and Gender Studies.

Combined Degree Programs, Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher’s Certificate of Qualifications, and Master’s degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Combined Degree Program: UTSC, Honours Bachelor of Arts, Specialist in Human Geography/ Master of Teaching
- Combined Degree Program: UTSC, Honours Bachelor of Arts, Major in Human Geography/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Human Geography Areas of Focus Table:
*Indicates a course that crosses two areas of focus.

Urban Geography	Social/Cultural Geography	Environmental Geography
GGRB05H3 GGRC10H3 GGRC11H3 GGRC12H3 GGRC13H3 GGRC27H3 GGRC33H3 GGRC34H3 GGRC40H3 GGRC45H3* GGRC48H3 GGRC50H3* GGRD14H3* GGRD25H3	GGRB13H3 GGRB28H3 GGRB55H3 GGRC02H3 GGRC09H3 GGRC24H3* GGRC43H3 GGRC45H3* GGRC49H3* GGRC50H3* GGRC56H3 GGRD09H3 GGRD10H3 GGRD14H3* GGRD19H3	GGRB18H3 GGRB21H3 GGRC21H3 (GGRC22H3) GGRC25H3 GGRC26H3 GGRC28H3 GGRC44H3 GGRD08H3 GGRD49H3*

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Geography Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry	Science - Chemistry

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/Specialist Co-op in Environmental Chemistry	
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
  - students must complete all of the HBA/ HBSc program and degree requirements;
  - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
  - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
  - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
  - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
  - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
  - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN HUMAN GEOGRAPHY (ARTS)

The Specialist in Human Geography expands upon, and enhances, the course requirements and learning outcomes of the Major in Human Geography. It is a more in-depth program that allows a deeper exploration of Human Geography, thus creating an opportunity for advanced students to engage in a richer, more intensive program, and allowing them to gain a sufficient depth of knowledge, and the enhanced methods and skills training they will need, for graduate studies or to compete in employment markets. The Specialist program will pair nicely with the Minor in GIS, or the Minor in City Studies.

Program Requirements
Students must complete 12.0 credits as follows:

1. Foundations of Human Geography (1.0 credit from among the following):
GGRA02H3 The Geography of Global Processes

GGRA03H3 Cities and Environments
GGRA35H3 The Great Scarborough Mashup: People, Place, Community, Experience

2. Theory and Concepts in Human Geography (2.5 credits):
GGRB02H3 The Logic of Geographical Thought
GGRB03H3 Writing Geography
and
1.5 credits from the following:
GGRB05H3 Urban Geography
GGRB13H3 Social Geography
GGRB18H3/EESB02H3 Whose Land Is It Anyway?, Indigenous Peoples, the Crown, and Land in Canada
GGRB21H3 Political Ecology: Nature, Society and Environmental Change
GGRB28H3 Geographies of Disease
GGRB55H3 Cultural Geography

3. Methods (2.0 credits):
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
STAB23H3 Introduction to Statistics for the Social Sciences (or equivalent)
and
1.0 credit from the following:
GGRB30H3 Fundamentals of GIS I
GGRB32H3 Fundamentals of GIS II
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography

4. Applications (5.5 credits):
5.5 additional credits at the C- and/or D-level in GGR courses

5. Advanced Applications (1.0 credit):
1.0 credit at the D-level in GGR courses

MAJOR PROGRAM IN HUMAN GEOGRAPHY (ARTS)

A Major Program for students interested in Human Geography as an academic discipline. This Program equips students with the knowledge and skills needed to understand contemporary social science thought in the context of the communities, societies, and economies formed by human populations, and the ways in which location, landscape, and spatial context shape (and are shaped by) social structures, functioning, and behaviour.
Guidelines for 1st year course selection Students intending to complete the Major Program in Human Geography are required to take two of GGRA02H3, GGRA03H3 or GGRA35H3. Enrollment in GGRA35H3 is limited and restricted to first year students. Students are also encouraged to take GGRA30H3 in their first year as a methods course.
Guidelines for Major Program completion: Courses in the Major Program in Human Geography are divided into three main subdisciplinary areas of focus: Urban Geography, Social/Cultural Geography and Environmental Geography. Major students are encouraged to focus on two areas of focus after second year.

Program Requirements
The Major Program in Human Geography requires a total of 7.0 full credits as follows:

1. Foundations of Human Geography (1.0 credit from the following):
GGRA02H3 The Geography of Global Processes
GGRA03H3 Cities and Environments
GGRA35H3 The Great Scarborough Mashup: People, Place, Community, Experience

2. Theory and Concepts in Human Geography (2.0 credits):
GGRB02H3 The Logic of Geographical Thought
and
1.5 credits from the following:
GGRB05H3 Urban Geography
GGRB13H3 Social Geography
GGRB18H3/ESTB02H3 Whose Land Is It Anyway?, Indigenous Peoples, the Crown, and Land in Canada
GGRB21H3 Political Ecology: Nature, Society and Environmental Change
GGRB28H3 Geographies of Disease
GGRB55H3 Cultural Geography

3. Methods (1.0 credit from the following):
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
GGRB03H3 Writing Geography
GGRB30H3 Fundamentals of GIS I
GGRB32H3 Fundamentals of GIS II
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography
STAB23H3 Introduction to Statistics for the Social Sciences

4. Applications (2.5 credits):
2.5 credits at the C- and/or D-level in GGR courses

5. Advanced Applications (0.5 credit):
0.5 credit at the D-level in GGR courses

MAJOR PROGRAM IN PHYSICAL AND HUMAN GEOGRAPHY (ARTS)

This is an interdepartmental program leading to a B.A. degree in which students combine courses in human geography (GGR prefix) with courses in physical geography (EES prefix).

Guidelines for firs year course selection
EES courses presume a background in physical sciences and mathematics. It is recommended that first year students take EESA01H3, EESA06H3, GGRA02H3 and GGRA03H3 and at least 1.0 credit from among [BIOA01H3 and BIOA02H3], [CHMA10H3 and CHMA11H3], [PHYA10H3 or PHYA11H3], [MATA30H3 and MATA35H3/A36H3/A37H3].

Program Requirements
The Major Program in Physical and Human Geography requires the completion of a total of 8.0 credits of which 4.0 credits are to be EES courses, and 4.0 credits are to be GGR or CIT courses. Among these 8.0 credits, the student must include:

1. 2.0 credits as follows:
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth

GGRA02H3 The Geography of Global Processes
GGRA03H3 Cities and Environments

2. 1.5 credits from the following:
EESB02H3 Principles of Geomorphology
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History

3. At least 1.5 credits from the following:
CITB01H3 Canadian Cities and Planning
GGRB02H3 The Logic of Geographical Thought
GGRB05H3 Urban Geography
GGRB13H3 Social Geography
GGRB18H3/ESTB02H3 Whose Land Is It Anyway?, Indigenous Peoples, the Crown, and Land in Canada
GGRB21H3 Political Ecology: Nature, Society and Environmental Change
GGRB28H3 Geographies of Disease
GGRB55H3 Cultural Geography

4. At least 1.0 credit at the C- or D-level from EES courses

5. At least 1.0 credit at the C- or D-level from GGR or CIT courses

6. At least one additional 0.5 credit from GGR or CIT courses

7. At least one additional 0.5 credit from EES courses

MINOR PROGRAM IN GEOGRAPHIC INFORMATION SCIENCE (GIS) (ARTS)

GIS is based on the integration of digital spatial data, mapping software, and spatial analysis tools. GIS has been a core method in Geographical research for almost two decades, but is also rapidly growing in importance outside Geography, in part because of the huge amounts of new spatial data being generated by ubiquitous sensors such as smart phones with GPS locators.

A growing number of research areas and careers require knowledge of GIS and cartographic presentation skills. This minor program provides training in the theory and practical application of Geographic Information Science and systems for spatial analysis, spatial data management, and cartographic representation, and is an excellent option for students pursuing Human Geography, City Studies, Critical Development Studies, Historical and Cultural Studies, Sociology, Political Science, Anthropology, Environmental Studies and Environmental Science.

Program Requirements
This program requires students to complete 4.0 credits as follows:

1. At least 0.5 credit from the following:
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
EESC03H3 Geographic Information Systems and Remote Sensing

2. 2.5 credits as follows:
GGRB30H3 Fundamentals of GIS I
GGRB32H3 Fundamentals of GIS II
GGRC30H3 Advanced GIS
GGRC32H3 Essential Spatial Analysis
GGRD30H3 GIS Research Project

3. 1.0 credit from the following:
CSCA20H3 Introduction to Programming
CITC18H3 Transportation Policy Analysis*
EESC03H3 Geographic Information Systems and Remote Sensing (if not used to complete component 1 of the requirements)
GGRC12H3 Transportation Geography
GGRC27H3 Location and Spatial Development
GGRC34H3 Crowd-sourced Urban Geographies
GGRC42H3 Making Sense of Data: Applied Multivariate Analysis
CITD01H3 City Issues and Strategies*
GGRD01H3 Supervised Research Project*
GGRD08H3 Research Seminar in Environmental Geography*
GGRD25H3 Research Seminar in Urban Spaces*
GGRD31H3 Independent Research Project*
***Note:** Permission to count these courses towards the Minor in Geographic Information Science (GIS) must be received from the Departmental Chair or the Program Advisor, and will be granted in cases where the student's major research project employs GIS research methods.

MINOR PROGRAM IN HUMAN GEOGRAPHY (ARTS)

The minor program is designed to give students a general introduction to Human Geography. Students are encouraged to select their B-, C-, and D -evel courses from one of the three areas of focus: Environmental, Urban or Social/Cultural Geography.

Program Requirements
This program requires the completion of 4.0 credits in Geography including:

1. 1.0 credit as follows:
GGRA02H3 The Geography of Global Processes
GGRA03H3 Cities and Environments

2. 3.0 credits in GGR courses, of which at least 1.0 credit must be at the C- or D-level

Geography Courses

GGRA02H3 - The Geography of Global Processes

Globalization from the perspective of human geography. The course examines how the economic, social, political, and environmental changes that flow from the increasingly global scale of human activities affect spatial patterns and relationships, the character of regions and places, and the quality of life of those who live in them.

Exclusion: GGR107H, (GGR107Y), GGR117Y
Breadth Requirements: Social & Behavioural Sciences

GGRA03H3 - Cities and Environments

An introduction to the characteristics of modern cities and environmental issues, and their interconnections. Linkages between local and global processes are emphasized. Major topics include urban forms and systems, population change, the complexity of environmental issues such as climate change and water scarcity, planning for sustainable cities.

Exclusion: GGR107H, (GGR107Y), GGR117Y
Breadth Requirements: Social & Behavioural Sciences

GGRA30H3 - Geographic Information Systems (GIS) and Empirical Reasoning

Confirmatory causal modeling and GIS; map as model; GIS data input; cartographic and GIS data structures; data errors and editing; elementary spatial analysis; measurement; map comparison; classification; statistical surfaces; spatial arrangement; privacy issues.

Breadth Requirements: Quantitative Reasoning

GGRA35H3 - The Great Scarborough Mashup: People, Place, Community, Experience

Scarborough is a place of rapidly changing social geographies, and now contains one of the world's most extraordinary mixes of people. What do these changes mean, how can we understand and interpret them? This course introduces Human Geography as the study of people, place, and community through field trips, interviews, and guest lectures.

Enrolment Limits: 30; Restricted to first year undergraduate students.
Breadth Requirements: Social & Behavioural Sciences

GGRB02H3 - The Logic of Geographical Thought

Many of today's key debates - for instance, on globalization, the environment, and cities - draw heavily from geographical thinking and what some have called the "spatial turn" in the social sciences. This course introduces the most important methodological and theoretical aspects of contemporary geographical and spatial thought, and serves as a foundation for other upper level courses in Geography.

Prerequisite: Any 4 credits
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

GGRB03H3 - Writing Geography

This course aims to develop critical reading and writing skills of human geography students. Through a variety of analytical, reflexive, and descriptive writing assignments, students will practice how to draft, revise, and edit their writing on spatial concepts. Students will learn how to conduct research for literature reviews, organize materials, and produce scholarly papers. They will also learn to cultivate their writing voice by engaging in a range of writing styles and forms such as blog posts, critical commentaries, travelogues, field notes, and research briefs. The course emphasizes writing clearly, succinctly, and logically.

Prerequisite: Any 4.0 credits
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major program in Human Geography. Additional students will be admitted as space permits.

GGRB05H3 - Urban Geography

This course will develop understanding of the geographic nature of urban systems and the internal spatial patterns and activities in cities. Emphasis is placed on the North American experience with some examples from other regions of the world. The course will explore the major issues and problems facing contemporary urban society and the ways they are analysed.
Area of Focus: Urban Geography

Prerequisite: Any 4 credits
Exclusion: GGR124H, (GGR124Y)
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

GGRB13H3 - Social Geography

The reciprocal relations between spatial structures and social identities. The course examines the role of social divisions such as class, 'race'/ethnicity, gender and sexuality in shaping the social geographies of cities and regions. Particular emphasis is placed on space as an arena for the construction of social relations and divisions.
Area of Focus: Social/Cultural Geography

Prerequisite: Any 4 credits
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

GGRB18H3 - Whose Land? Indigenous-Canada-Land Relations

Introduces students to the geography of Indigenous-Crown-Land relations in Canada. Beginning with pre-European contact and the historic Nation-to-Nation relationship, the course will survey major research inquiries from the Royal Commission on Aboriginal Peoples to Missing and Murdered Indigenous Women and Girls. Students will learn how ongoing land and treaty violations impact Indigenous peoples, settler society, and the land in Canada.

Area of Focus: Environmental Geography
Same as ESTB02H3

Prerequisite: 4.0 credits, including at least 0.5 credit in ANT, CIT, GGR, HLT, IDS, POL or SOC
Exclusion: ESTB02H3
Breadth Requirements: Social & Behavioural Sciences

GGRB21H3 - Political Ecology: Nature, Society and Environmental Change

This foundational course explores different conceptions of 'the environment' as they have changed through space and time. It also analyzes the emergence of different variants of environmentalism and their contemporary role in shaping environmental policy and practice.
Area of Focus: Environmental Geography

Exclusion: GGR222H, GGR223H, GGRC22H3
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

GGRB28H3 - Geographies of Disease

Examines the geographical distribution of disease and the spatial processes in which diseases are embedded. Themes include spatial theories of health and disease and uneven development and health. Special attention will be given to the geographical dimension of the HIV pandemic.
Area of Focus: Social/Cultural Geography

Prerequisite: Any 4 credits
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

GGRB30H3 - Fundamentals of GIS I

This course provides a practical introduction to digital mapping and spatial analysis using a geographic information system (GIS). The course is designed to provide hands-on experience using GIS to analyse spatial data, and create maps that effectively communicate data meanings. Students are instructed in GIS methods and approaches that are relevant not only to Geography but also to many other disciplines. In the lectures, we discuss mapping and analysis concepts and how you can apply them using GIS software. In the practice exercises and assignments, you then learn how to do your own data analysis and mapping, gaining hands-on experience with ArcGIS software, the most widely used GIS software.

Exclusion: GGR272H, GGR278H
Recommended Preparation: GGRA30H3
Enrolment Limits: 150
Breadth Requirements: Quantitative Reasoning

GGRB32H3 - Fundamentals of GIS II

This course builds on GGRB30 Fundamentals of GIS, continuing the examination of theoretical and analytical components of GIS and spatial analysis, and their application through lab assignments. The course covers digitizing, topology, vector data models, remote sensing and raster data models and analysis, geoprocessing, map design and cartography, data acquisition, metadata, and data management, and web mapping.

Prerequisite: GGRB30H3
Enrolment Limits: 150
Breadth Requirements: Quantitative Reasoning

GGRB55H3 - Cultural Geography

The course introduces core concepts in cultural geography such as race and ethnicity, identity and difference, public and private, landscape and environment, faith and community, language and tradition, and mobilities and social change. Emphasis will be on cross-disciplinary, critical engagement with current events, pop culture, and visual texts including comics, photos, and maps.
Area of Focus: Social/Cultural Geography
Prerequisite: Any 4.0 credits
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

GGRC01H3 - Supervised Readings in Human Geography

An independent supervised reading course open only to students in the Major Program in Human Geography. An independent literature review research project will be carried out under the supervision of an individual faculty member.

Prerequisite: 10 full credits including completion of the following requirements for the Major Program in Human Geography: 1) Introduction, 2) Theory and Concepts, 3) Methods; and a cumulative GPA of at least 2.5.

GGRC02H3 - Population Geography

An examination of the geographical dimension to human population through the social dynamics of fertility, mortality and migration. Themes include disease epidemics, international migration, reproductive technologies, and changing family structure. Area of focus: Social/Cultural Geography

Prerequisite: Any 8.0 credits
Exclusion: GGR323H, GGR208H
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB02H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC09H3 - Current Topics in Social Geography

Examination and discussion of current trends and issues in social geography, with particular emphasis on recent developments in concepts and methods. This course is an unique opportunity to explore a particular topic in-depth, the specific content will vary from year to year.
Area of focus: Social/Cultural Geography

Prerequisite: Any 8.0 credits
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC10H3 - Urbanization and Development

Examines global urbanization processes and the associated transformation of governance, social, economic, and environmental structures particularly in the global south. Themes include theories of development, migration, transnational flows, socio-spatial polarization, postcolonial geographies of urbanization.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB05H3 or IDSA01H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC11H3 - Current Topics in Urban Geography

Examination and discussion of current trends and issues in urban geography, with particular emphasis on recent developments in concepts and methods. This course is an unique opportunity to explore a particular topic in-depth, the specific content will vary from year to year.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB05H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC12H3 - Transportation Geography

Transportation systems play a fundamental role in shaping social, economic and environmental outcomes in a region. This course explores geographical perspectives on the development and functioning of transportation systems, interactions between transportation and land use, and costs and benefits associated with transportation systems including: mobility, accessibility, congestion, pollution, and livability.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits including GGRA30H3 and [GGRB05H3 or CITA01H3/(CITB02H3)]
Exclusion: GGR370H, GGR424H
Recommended Preparation: GGRB30H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC13H3 - Urban Political Geography

Geographical approach to the politics of contemporary cities with emphasis on theories and structures of urban political processes and practices. Includes nature of local government, political powers of the property industry, big business and community organizations and how these shape the geography of cities.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB05H3 or PPGC66H3/(POLC66H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC21H3 - Current Topics in Environmental Geography

Examination and discussion of current trends and issues in environmental geography, with particular emphasis on recent developments in concepts and methods. This course is an unique opportunity to explore a particular topic in-depth, the specific content will vary from year to year.
Area of focus: Environmental Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB21H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC24H3 - Socio-Natures and the Cultural Politics of 'The Environment'

Explores the processes through which segments of societies come to understand their natural surroundings, the social relations that produce those understandings, popular representations of nature, and how 'the environment' serves as a consistent basis of social struggle and contestation.
Areas of focus: Environmental Geography; Social/Cultural Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB21H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC25H3 - Land Reform and Development

Land reform, which entails the redistribution of private and public lands, is broadly associated with struggles for social justice. It embraces issues concerning how land is transferred (through forceful dispossession, law, or markets), and how it is currently held. Land inequalities exist all over the world, but they are more pronounced in the developing world, especially in countries that were affected by colonialism. Land issues, including land reform, affect most development issues.
Area of focus: Environmental Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB21H3 or AFSB01H3 or IDSB02H3 or ESTB01H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC26H3 - Geographies of Environmental Governance

This course addresses the translation of environmentalisms into formalized processes of environmental governance; and examines the development of environmental institutions at different scales, the integration of different forms of environmental governance, and the ways in which processes of governance relate to forms of environmental practice and management.
Area of focus: Environmental Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB21H3 or ESTB01H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC27H3 - Location and Spatial Development

Location of a firm; market formation and areas; agricultural location; urban spatial equilibrium; trade and spatial equilibrium; locational competition; equilibrium for an industry; trade and location.
Area of focus: Urban Geography

Prerequisite: MGEA01H3 and [(GGRB02H3 and GGRB05H3) or [(CITB01H3 and CITA01H3/(CITB02H3)] or [[MGEB01H3 or MGEB02H3] and [MGEB05H3 or MGEB06H3]]
Exclusion: (GGRB27H3), GGR220Y
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC28H3 - Indigenous Peoples, Environment and Justice

Engages Indigenous perspectives on the environment and environmental issues. Students will think with Indigenous concepts, practices, and theoretical frameworks to consider human-environment relations. Pressing challenges and opportunities with respect to Indigenous environmental knowledge, governance, law, and justice will be explored. With a focus primarily on Canada, the course will include case studies from the US, Australia, and Aotearoa New Zealand

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB18H3/ESTB02H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC30H3 - Advanced GIS

This course covers advanced theoretical and practical issues of using GIS systems for research and spatial analysis. Students will learn how to develop and manage GIS research projects, create and analyze three-dimensional surfaces, build geospatial models, visualize geospatial data, and perform advanced spatial analysis. Lectures introduce concepts and labs implement them.

Prerequisite: GGRB32H3
Exclusion: GGR373H
Enrolment Limits: 60
Breadth Requirements: Quantitative Reasoning

GGRC31H3 - Qualitative Geographical Methods: Place and Ethnography

Explores the practice of ethnography (i.e. participant observation) within and outside the discipline of geography, and situates this within current debates on methods and theory. Topics include: the history of ethnography, ethnography within geography, current debates within ethnography, the "field," and ethnography and "development."

Prerequisite: Any 8.0 credits
Enrolment Limits: 60
Breadth Requirements: History, Philosophy & Cultural Studies

GGRC32H3 - Essential Spatial Analysis

This course builds on introductory statistics and GIS courses by introducing students to the core concepts and methods of spatial analysis. With an emphasis on spatial thinking in an urban context, topics such as distance decay, distance metrics, spatial interaction, spatial distributions, and spatial autocorrelation will be used to quantify spatial patterns and identify spatial processes. These tools are the essential building blocks for the quantitative analysis of urban spatial data.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits including [STAB23H3 and GGRB30H3]
Exclusion: GGR276H
Enrolment Limits: 60
Breadth Requirements: Quantitative Reasoning

GGRC33H3 - The Toronto Region

This course examines issues of urban form and structure, urban growth and planning in the Toronto region. Current trends in population, housing, economy, environment, governance, transport, urban design and planning practices at the local level and the regional scale will be examined critically.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB05H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC34H3 - Crowd-sourced Urban Geographies

Significant recent transformations of geographic knowledge are being generated by the ubiquitous use of smartphones and other distributed sensors, while web-based platforms such as Open Street Map and Public Participation GIS (PPGIS) have made crowd-sourcing of geographical data relatively easy. This course will introduce students to these new geographical spaces, approaches to creating them, and the implications for local democracy and issues of privacy they pose.
Area of focus: Urban Geography

Prerequisite: GGRB05H3 or GGRB30H3
Recommended Preparation: GGRB32H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC40H3 - Megacities and Global Urbanization

The last 50 years have seen dramatic growth in the global share of population living in megacities over 10 million population, with most growth in the global south. Such giant cities present distinctive infrastructure, health, water supply, and governance challenges, which are increasingly central to global urban policy and health.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits
Exclusion: (CITC40H3)
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB05H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC41H3 - Current Topics in Human Geography

Examination and discussion of current trends and issues in human geography, with particular emphasis on recent developments in concepts and methods. This course is an unique opportunity to explore a particular topic in-depth, the specific content will vary from year to year.

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB20H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC42H3 - Making Sense of Data: Applied Multivariate Analysis

This course introduces students to the main methods of multivariate analysis in the social sciences, with an emphasis on applications incorporating spatial thinking and geographic data. Students will learn how to evaluate data quality, construct analysis datasets, and perform and interpret multivariate analyses using the R statistical programming language.

Prerequisite: STAB22H3 or equivalent
Exclusion: GGRC41H3 (if taken in the 2019 Fall session)
Breadth Requirements: Quantitative Reasoning

GGRC43H3 - Social Geographies of Street Food

This course uses street food to comparatively assess the production of ‘the street’, the legitimation of bodies and substances on the street, and contests over the boundaries of, and appropriate use of public and private space. It also considers questions of labour and the culinary infrastructure of contemporary cities around the world.

Area of Focus: Social/Cultural Geography
Same as FSTC43H3

Prerequisite: FSTA01H3 or GGRA02H3 or GGRA03H3
Exclusion: FSTC43H3, GGRC41H3 (if taken in the 2019 Winter and 2020 Winter sessions)
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

GGRC44H3 - Environmental Conservation and Sustainable Development

Deals with two main topics: the origins of environmental problems in the global spread of industrial capitalism, and environmental conservation and policies. Themes include: changes in human-environment relations, trends in environmental problems, the rise of environmental awareness and activism, environmental policy, problems of sustainable development.
Area of focus: Environmental Geography

Prerequisite: Any 8.0 credits
Exclusion: GGR233Y, (GGRB20H3)
Recommended Preparation: GGRB21H3 or IDSB02H3 or ESTB01H3
Enrolment Limits: 80
Breadth Requirements: Social & Behavioural Sciences

GGRC45H3 - Local Geographies of Globalization

Examines the localized consequences of global processes. Toronto will be used as a site for understanding how individuals interact with and experience the effects of globalizing forces differently based on their unique conditions of life and how they respond to the challenges and opportunities of a globalized world.
Areas of focus: Urban or Social/Cultural Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB05H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC48H3 - Geographies of Urban Poverty

How have social and economic conditions deteriorated for many urban citizens? Is the geographic gap widening between the rich and the poor? This course will explore the following themes: racialization of poverty, employment and poverty, poverty and gender socio-spatial polarization, and housing and homelessness.
Area of focus: Urban Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB05H3 or IDSA01H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC50H3 - Geographies of Education

Explores the social geography of education, especially in cities. Topics include geographical educational inequalities; education, class and race; education, the family, and intergenerational class immobility; the movement of children to attend schools; education and the ‘right to the city.’
Areas of focus: Urban or Social/Cultural Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: GGRB05H3 or GGRB13H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRC54H3 - Human Geography Field Trip

Provides an opportunity to engage in a field trip and field research work on a common research topic. The focus will be on: preparation of case study questions; methods of data collection including interviews, archives, and observation; snowballing contacts; and critical case-study analysis in a final report.

Prerequisite: GGRB02H3 and 1.0 additional credit at the B-level in GGR
Enrolment Limits: 30; Restricted to students in the Human Geography Major.
Breadth Requirements: Social & Behavioural Sciences

GGRC56H3 - Spaces of Travel: Unsettling Migration, Tourism, and Everyday Mobilities

Cultural Politics and political economy of travel and mobilities across time and space. Covers migration and immigration, tourism and travel encounters, diaspora and displacement, religious missions and pilgrimages, study abroad and working holiday, transportation and communication technologies, and narratives of time travel. Addresses how these extraordinary and everyday mobilities and immobilities inform geographies of race, gender, sexuality, and nation.
Area of focus: Social/Cultural Geography

Prerequisite: Any 8.0 credits
Recommended Preparation: CITA01H3/(CITB02H3) or GGRB13H3 or SOCB60H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

GGRD01H3 - Supervised Research Project

An independent studies course open only to students in the Major Program in Human Geography. An independent studies project will be carried out under the supervision of an individual faculty member.

Prerequisite: 13.0 credits including GGRB02H3

GGRD08H3 - Research Seminar in Environmental Geography

Designed for final-year Human Geography Majors, this seminar is devoted to analysis and discussion of advanced theoretical and methodological issues in Environmental Geography. Specific content will vary from year to year. Seminar format with active student participation.
Area of focus: Environmental Geography

Prerequisite: 13.0 credits including GGRB21H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

GGRD09H3 - Feminist Geographies

How do gender relations shape different spaces? We will explore how feminist geographers have approached these questions from a variety of scales - from the home, to the body, to the classroom, to the city, to the nation, drawing on the work of feminist geographers.
Area of focus: Social/Cultural Geography

Prerequisite: 13.0 credits including [GGRB13H3 or CITA01H3/(CITB02H3) or WSTB05H3]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

GGRD10H3 - Health and Sexuality

Examines links between health and human sexuality. Particularly explores sexually transmitted infections. Attention will be given to the socially and therefore spatially constructed nature of sexuality. Other themes include sexual violence, masculinities and health, reproductive health, and transnational relationships and health. Examples will be taken from a variety of countries.
Area of focus: Social/Cultural Geography

Prerequisite: 13.0 credits including [GGRB13H3 or IDSB04H3 or WSTB05H3]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

GGRD11H3 - Advanced Geographical Theory and Methods

Designed for final-year Human Geography Majors, this reading-intensive seminar course develops analytical and methodological skills in socio-spatial analysis. We explore major theoretical/methodological traditions in geography including positivism, humanism, Marxism, and feminism, and major analytical categories such as place, scale, and networks. Particularly recommended for students intending to apply to graduate school.

Prerequisite: 13.0 credits including GGRB02H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

GGRD12H3 - Seminar in Selected Topics in Human Geography

Designed for final-year Human Geography Majors, this seminar is devoted to analysis and discussion of current theoretical and methodological issues in human geography. This course is an unique opportunity to explore a particular topic in-depth, the specific content will vary from year to year. Seminar format with active student participation.

Prerequisite: 13.0 credits including GGRB02H3
Enrolment Limits: 20

GGRD14H3 - Social Justice and the City

Examines links between politics of difference, social justice and cities. Covers theories of social justice and difference with a particular emphasis placed on understanding how contemporary capitalism exacerbates urban inequalities and how urban struggles such as Occupy Wall Street seek to address discontents of urban dispossession. Examples of urban social struggles will be drawn from global North and South.
Areas of focus: Urban or Social/Cultural Geography

Prerequisite: 13.0 credits including [GGRB05H3 or GGRB13H3 or CITA01H3/(CITB02H3) or IDSB06H3]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

GGRD19H3 - Spaces of Multiraciality: Critical Mixed Race Theory

From Tiger Woods to Mariah Carey, the popular mixed race phenomenon has captured the popular imagination and revealed the contradictory logic of categorization underpinning racial divisions. We will explore the complexities of racial identity formation to illuminate the experiences of those who fall outside the prevailing definitions of racial identities.
Area of focus: Social/Cultural Geography

Prerequisite: 13.0 credits including [GGRB13H3 or SOCB60H3]
Exclusion: (GGRC19H3)
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

GGRD25H3 - Research Seminar in Urban Spaces

Designed for final-year Human Geography Majors, this seminar is devoted to analysis and discussion of current theoretical and methodological issues in urban geography. Specific content will vary from year to year. Seminar format with active student participation.
Area of focus: Urban Geography

Prerequisite: 13.0 credits including [GGRB05H3 or CITA01H3/(CITB02H3)]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to Geography Majors with the highest CGPA.

GGRD30H3 - GIS Research Project

Students will design, manage and complete a research project using GIS. Students will work in teams of 4-6 to pose a research question, acquire a dataset, and organize and analyze the data to answer their question. The course will teach research design, project management, data analysis, team work, and presentation of final results.

Prerequisite: GGRC30H3
Exclusion: GGR462H
Enrolment Limits: 20
Breadth Requirements: Quantitative Reasoning

GGRD31H3 - Independent Research Project

Independent research extension to one of the courses already completed in Human Geography. Enrolment requires written permission from a faculty supervisor and Associate Chair, Human Geography. Only open to students who have completed 13.0 credits and who are enrolled in the Human Geography Major, Human and Physical Geography Major programs, or Minor Program in GIS sponsored by the Department of Human Geography.

Prerequisite: Any 13.0 credits
Breadth Requirements: Social & Behavioural Sciences

GGRD49H3 - Land and Land Conflicts in the Americas

The politics of land and territorial struggles are central themes in national and international development policies, and social movements in the Western Hemisphere. Similarly, settler colonialism, as an active spatial formation, is constituted in both the past and present throughout the Americas. The course will take a hemispheric approach to understanding the historical and contemporary geographies of land and natural resource conflicts in the Americas. Students will become familiar with geographic debates and conceptualizations of land and land conflicts, and will participate in field visits aimed to ground theoretical understandings in land practices and movements in Toronto.
Areas of focus: Environmental or Social/Cultural Geography

Prerequisite: 13.0 credits including GGRB02H3
Exclusion: (GGRC49H3)
Recommended Preparation: GGRB13H3 or GGRB21H3 or IDSA01H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

Global Asia Studies

Faculty List

- R. Bai, M.A. (Beijing Foreign Studies), Ph.D. (Illinois), Associate Professor
- L. Chen, M.A. (SUNY Buffalo), J.D.(Illinois), M.A., M.Phil., Ph.D. (Columbia), Associate Professor
- A. Grewal, M.A. (Trent), Ph.D. (Chicago), Assistant Professor
- Y. Gu, M.A. (Fudan), Ph.D. (Brown), Assistant Professor
- B. Raman, M.A., Ph.D. (Michigan), Associate Professor
- J. Sharma, M.A. (Delhi), M.Phil. (Delhi), Ph.D. (Cambridge), Associate Professor
- S. Ye, M.A. (Cincinnati), Ph.D. (Minnesota), Assistant Professor

Undergraduate Advisor: 416-287-7184 Email: gas-undergrad-advisor@utsc.utoronto.ca

Global Asia Studies (GAS) has interdisciplinary undergraduate programs that enable students to intensively study Asia as part of a dynamic global and diasporic context in the past and present. Students learn cutting-edge Humanities methods and theories from a range of different disciplines. GAS programs link the academic study of Asia to Toronto's vibrant Asian communities through exciting co- and extra-curricular programming that nurtures socially responsible and educationally rigorous experiential learning. It incorporates various thematic interests such as the study of gender, diasporas and migration, religion, development, nationalism in contexts as different as mainland China and Tamil worlds.

The curriculum combines a variety of approaches. The first-year A-level courses GASA01H3/HISA06H3 and GASA02H3 provide a general introduction to Asia in a global context through historical and cultural perspectives respectively.
GAS students then move onto courses at the B-level which provide a comprehensive foundation of knowledge in particular areas and fields relevant to the study of Asia. For example, see courses such as GASB57H3/HISB57H3.
In C-level courses, students investigate specific areas and problems pertaining to East and South Asia in greater depth. These courses are conducted in a lecture and tutorial discussion format. For example, see courses such as GASC20H3.
All D-level courses are conducted as small-group seminars where students conduct research and analysis of particular questions or topics, actively participate in class discussions and present their findings in class and in their research essays. For example, see courses such as GASD01H3. The Specialist Program in Global Asia Studies and Major Program in Global Asia Studies are designed for those students who wish to acquire more in-depth knowledge of Asia that spans a number of disciplines, and may help better prepare them for a variety of careers.

Language study for the Global Asia Studies program is particularly important for those students who wish to move onto advanced studies of East or South Asia at the university level, and to acquire a specialized knowledge base for a range of professional and academic opportunities. Languages offered at the university that count towards the Global Asia Studies degree includes Hindi, Mandarin Chinese, and Japanese. Students should get the Program Director's written approval before taking any language courses offered outside the University of Toronto Scarborough. The language study requirement is waived in specific cases.

Guidelines for first-year course selection
Students who intend to complete a Global Asia Studies program should include GASA01H3/HISA06H3 or GASA02H3 in their first-year course selection.
For updates and detailed information regarding Global Asia Studies please visit the Department of Historical and Cultural Studies website.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Global Asia Studies Programs

SPECIALIST PROGRAM IN GLOBAL ASIA STUDIES (ARTS)

Undergraduate Advisor: (416) 287-7184 Email: gas-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 12.0 credits, of which at least 4.0 credits must be at the C- or D-level, including at least 1.0 credit at the D-level:

1. 0.5 credit as follows:
GASA01H3/HISA06H3 Introducing Global Asia and its Histories
or
GASA02H3 Introduction to Global Asia Studies

2. 9.5 credits at the B- or C-level in GAS courses, of which 3.0 credits should be at the C-level (students should check course descriptions for prerequisites)

3. At least 1.0 credit at the D-level in GAS courses (students should check the course description for prerequisites)

4. 1.0 credit from Asian language courses taught at the University

MAJOR PROGRAM IN GLOBAL ASIA STUDIES (ARTS)

Undergraduate Advisor: (416) 287-7184 Email: gas-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 7.0 credits.

1. 0.5 credit as follows:
GASA01H3/HISA06H3 Introducing Global Asia and its Histories
or
GASA02H3 Introduction to Global Asia Studies

2. 5.5 credits in GAS courses, of which at least 1.5 credits must be at the C-level and 1.0 credit at the D-level (students should check course description for prerequisites)

3. 1.0 credit from Asian language courses taught at the university

MINOR PROGRAM IN GLOBAL ASIA STUDIES (ARTS)

Undergraduate Advisor: (416) 287-7184 Email: gas-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits.

1. 0.5 credit as follows:
GASA01H3/HISA06H3 Introducing Global Asia and its Histories
or
GASA02H3 Introduction to Global Asia Studies

2. For the remaining 3.5 credits, students have two options:
Complete 3.5 credits in GAS courses, of which at least 1.5 credits must be at the C- or D-level
or
Complete 2.5 credits in GAS courses, of which at least 1.0 credit must be at the C- or D-level, plus 1.0 credit from Asian language courses.

Global Asia Studies Courses

GASA01H3 - Introducing Global Asia and its Histories

This course introduces Global Asia Studies through studying historical and political perspectives on Asia. Students will learn how to critically analyze major historical texts and events to better understand important cultural, political, and social phenomena involving Asia and the world. They will engage in intensive reading and writing for humanities.
Same as HISA06H3

Exclusion: HISA06H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASA02H3 - Introduction to Global Asia Studies

This course introduces Global Asia Studies through the study of cultural and social institutions in Asia. Students will critically study important elements of culture and society over different periods of history and in different parts of Asia. They will engage in intensive reading and writing for humanities.

Breadth Requirements: Arts, Literature & Language

GASB05H3 - Media and Globalization

This course examines the role of technological and cultural networks in mediating and facilitating the social, economic and political processes of globalization. Key themes include imperialism, militarization, global political economy, activism, and emerging media technologies. Particular attention is paid to cultures of media production and reception outside of North America.
Same as MDSB05H3

Prerequisite: 4.0 credits and MDSA01H3
Exclusion: MDSB05H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASB15H3 - The Arts of South Asia

The course will provide students with an introduction to the arts of South Asia, from classical to modern, and from local to global. Fields of study may include music, dance, drama, literature, film, graphic arts, decorative arts, magic, yoga, athletics, and cuisine, fields viewed as important arts for this society.

Breadth Requirements: Arts, Literature & Language

GASB20H3 - Gender and Social Institutions in Asia

This course examines the role of gender in shaping social institutions in Asia.

Breadth Requirements: History, Philosophy & Cultural Studies

GASB30H3 - Asian Religions and Culture

This course examines the close relationship between religions and cultures, and the role they play in shaping the worldviews, aesthetics, ethical norms, and other social ideals in Asian countries and societies.

Breadth Requirements: History, Philosophy & Cultural Studies

GASB33H3 - Global Buddhism in Historical and Contemporary Societies

This course examines the global spread of different versions of Buddhism across historical and contemporary societies.

Breadth Requirements: History, Philosophy & Cultural Studies

GASB53H3 - Mughals and the World, 1500-1858 AD

Why does Southern Asia’s pre-colonial history matter? Using materials that illustrate the connected worlds of Central Asia, South Asia and the Indian Ocean rim, we will query conventional histories of Asia in the time of European expansion.
Same as HISB53H3

Exclusion: HISB53H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASB57H3 - Sub-Continental Histories: South Asia in the World

A survey of South Asian history. The course explores diverse and exciting elements of this long history, such as politics, religion, trade, literature, and the arts, keeping in mind South Asia's global and diasporic connections.
Same as HISB57H3

Exclusion: HIS282Y, HIS282H, HISB57H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASB58H3 - Modern Chinese History

This course provides an overview of the historical changes and continuities of the major cultural, economic, political, and social institutions and practices in modern Chinese history.
Same as HISB58H3

Prerequisite: Any 2.0 credits
Exclusion: HIS280Y, HISB58H3
Recommended Preparation: 0.5 credit at the A-level in HIS or GAS courses
Breadth Requirements: History, Philosophy & Cultural Studies

GASB73H3 - Visualizing Asia

A survey of the art of China, Japan, Korea, India, and Southeast Asia. We will examine a wide range of artistic production, including ritual objects, painting, calligraphy, architectural monuments, textile, and prints. Special attention will be given to social contexts, belief systems, and interregional exchanges.
Same as VPHB73H3

Prerequisite: VPHA46H3 or GASA01H3
Exclusion: VPHB73H3, FAH261H
Breadth Requirements: Arts, Literature & Language

GASB74H3 - Asian Foods and Global Cities

This course explores the social circulation of Asian-identified foods and beverages using research from geographers, anthropologists, sociologists, and historians to understand their changing roles in ethnic entrepreneur-dominated cityscapes of London, Toronto, Singapore, Hong Kong, and New York. Foods under study include biryani, curry, coffee, dumplings, hoppers, roti, and tea.
Same as HISB74H3

Exclusion: HISB74H3
Breadth Requirements: Social & Behavioural Sciences

GASB77H3 - Modern Asian Art

An introduction to modern Asian art through domestic, regional, and international exhibitions. Students will study the multilayered new developments of art and art institutions in China, Japan, Korea, India, Thailand, and Vietnam, as well as explore key issues such as colonial modernity, translingual practices, and multiple modernism.
Same as VPHB77H3

Exclusion: VPHB77H3
Recommended Preparation: VPHA46H3 or GASA01H3
Breadth Requirements: Arts, Literature & Language

GASC20H3 - Gendering Global Asia

This course offers students a critical and analytical perspective on issues of gender history, equity, discrimination, resistance, and struggle facing societies in East and South Asia and their diasporas.

Prerequisite: 8.0 credits, including 0.5 credit at the A-level, and 1.0 credit at the B-level in AFS, CLA, FST, GAS, HIS, or WST courses
Recommended Preparation: GASA01H3 or GASA02H3
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

GASC33H3 - Critical Perspectives in Global Buddhism

This course critically examines different aspects of Buddhism in global context.

Prerequisite: Any 4.0 credits
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

GASC40H3 - Chinese Media and Politics

This course examines the complex and dynamic interplay of media and politics in contemporary China, and the role of the government in this process.
Same as MDSC40H3

Prerequisite: 4.0 credits, including ACMB01H3
Exclusion: MDSC40H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASC41H3 - Media and Popular Culture in East Asia

This course introduces students to media industries and commercial popular cultural forms in East Asia. Topics include reality TV, TV dramas, anime, and manga as well as issues such as regional cultural flows, global impact of Asian popular culture, and the localization of global media in East Asia.
Same as MDSC41H3

Prerequisite: 4.0 credits, including ACMB01H3
Exclusion: MDSC41H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASC42H3 - Film and Popular Culture in South Asia

This course offers students a critical perspective on film and popular cultures in South Asia. Topics include Bombay, Tamil, and other regional filmic industries, their history, production, and distribution strategies, their themes and musical genres, and a critical look at the larger social and political meanings of these filmic cultures.

Prerequisite: Any 4.0 credits
Enrolment Limits: 50
Breadth Requirements: Arts, Literature & Language

GASC43H3 - Colonialisms and Cultures in Modern East Asia

This course explores the development of colonialism, modernity, and nationalism in modern Japan, Korea, China, and Taiwan. Key issues include sexuality, race, medicine, mass media, and consumption.

Prerequisite: Any one of [GASB20H3 or GASB58H3/HISB58H3 or GASC20H3]
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

GASC45H3 - Film and Popular Cultures in East Asia

This course offers students a critical perspective on film and popular cultures in East Asia. The course examines East Asian filmic industries, and the role they play in shaping worldviews, aesthetics, ethical norms, folk beliefs, and other socio-cultural aspects in China, Hong Kong, Taiwan, Korea, and Japan.

Prerequisite: Any 4.0 credits
Breadth Requirements: Arts, Literature & Language

GASC50H3 - Comparative Studies of East Asian Legal Cultures

An introduction to the distinctive East Asian legal tradition shared by China, Japan, and Korea through readings about selected thematic issues. Students will learn to appreciate critically the cultural, political, social, and economic causes and effects of East Asian legal cultures and practices.
Same as HISC56H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in GAS or HIS courses
Exclusion: HISC56H3
Recommended Preparation: GASB58H3/HISB58H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

GASC51H3 - From Opium to Maximum City: Narrating Political Economy in China and India

This course addresses literary, historical, ethnographic, and filmic representations of the political economy of China and the Indian subcontinent from the early 19th century to the present day. We will look at such topics as the role and imagination of the colonial-era opium trade that bound together India, China and Britain in the 19th century, anticolonial conceptions of the Indian and Chinese economies, representations of national physical health, as well as critiques of mass-consumption and capitalism in the era of the 'liberalization' and India and China's rise as major world economies. Students will acquire a grounding in these subjects from a range of interdisciplinary perspectives.

Same as HISC51H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A-level and 0.5 credit at the B-level in HIS, GAS or other Humanities and Social Sciences courses
Exclusion: HISC51H3
Recommended Preparation: GASA01H3/HISA06H3 or GASA02H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASC53H3 - The Silk Routes

The Silk Routes were a lacing of highways connecting Central, South and East Asia and Europe. Utilizing the Royal Ontario Museum's collections, classes held at the Museum and U of T Scarborough will focus on the art produced along the Silk Routes in 7th to 9th century Afghanistan, India, China and the Taklamakhan regions.
Same as VPHC53H3

Prerequisite: One full credit in art history or in Asian or medieval European history.
Exclusion: VPHC53H3
Breadth Requirements: Arts, Literature & Language

GASC54H3 - Eating and Drinking Across Global Asia

Students examine historical themes for local and regional cuisines across Global Asia, including but not limited to Anglo-Indian, Arab, Bengali, Chinese, Himalayan, Goan, Punjabi, Japanese, Persian, Tamil, and Indo-Caribbean. Themes include religious rituals, indigenous foodways; colonialism, industrialization, labour, gender, class, migration, globalization, and media. Tutorials are in the Culinaria Kitchen Lab.

Same as FSTC54H3 and HISC54H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level from AFS, CLA, FST, GAS, HIS or WST courses
Exclusion: FSTC54H3, HISC54H3
Breadth Requirements: Social & Behavioural Sciences

GASC57H3 - China and the World

A study of the history of China's relationship with the rest of the world in the modern era. The readings focus on China's role in the global economy, politics, religious movements, transnational diasporas, scientific/technological exchanges, and cultural encounters and conflicts in the ages of empire and globalization.
Same as HISC57H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in GAS or HIS courses
Exclusion: HISC57H3
Recommended Preparation: GASB58H3/HISB58H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

GASC59H3 - The Making of Tamil Worlds

This course explores the transnational history of Tamil worlds. In addition to exploring modern Tamil identities, the course will cover themes such as mass migration, ecology, social and economic life, and literary history.

Same as HISC59H3

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in GAS or HIS courses
Exclusion: HISC59H3, (GASB54H3), (HISB54H3)
Recommended Preparation: GASB57H3/HISB57H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASC74H3 - A Tale of Three Cities: Introduction to Contemporary Art in China

An introduction to Chinese contemporary art focusing on three cities: Beijing, Shanghai, and Guangzhou. Increasing globalization and China's persistent self-renovation has brought radical changes to cities, a subject of fascination for contemporary artists. The art works will be analyzed in relation to critical issues such as globalization and urban change.
Same as VPHC74H3

Prerequisite: 2.0 credits at the B-level in Art History, Asian History, and/or Global Asia Studies courses, including at least 0.5 credit from the following: VPHB39H3, VPHB73H3, HISB58H3, (GASB31H3), GASB33H3, or (GASB35H3).
Exclusion: VPHC74H3
Breadth Requirements: Arts, Literature & Language

GASD01H3 - Senior Seminar: Topics in Global Asian Migrations

This course offers an in-depth and historicized study of important cultural issues in historical and contemporary Asian, diasporic and borderland societies, including migration, mobility, and circulation. It is conducted in seminar format with emphasis on discussion, critical reading and writing, digital skills, and primary research.

Same as HISD09H3

Prerequisite: Any 8.0 credits, including [0.5 at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses] and [0.5 credit at the C-level in AFS, CLA, FST, GAS, HIS or WST courses]
Exclusion: HISD09H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Topics vary from year to year. Check the website: www.utsc.utoronto.ca/~hcs/programs/global-asia-studies.html for current offerings.

GASD02H3 - Senior Seminar: Topics in Global Asian Societies

This course offers a capstone experience of issues which confront Asian and diasporic societies. Themes include gender, environment, human rights, equity, religion, politics, law, migration, labour, nationalism, post-colonialism, and new social movements. It is conducted in seminar format with emphasis on discussion, critical reading, and writing of research papers.

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS courses] and [0.5 credit at the C-level in GAS courses]
Enrolment Limits: 15
Note: Topics vary from year to year. Check the website: www.utsc.utoronto.ca/~hcs/programs/global-asia-studies.html for current offerings.

GASD03H3 - Senior Seminar: Topics in Global Asia Studies

The course offers an in-depth, special study of important topics in the study of Global Asia. Special topics will vary from year to year depending on the expertise of the visiting professor. It is conducted in seminar format with emphasis on discussion, critical reading, and writing of research papers.

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS courses] and [0.5 credit at the C-level in GAS courses]
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Topics vary from year to year. Check the website: www.utsc.utoronto.ca/~hcs/programs/global-asia-studies.html for current offerings.

GASD06H3 - Global History of Crime and Punishment since 1750

An exploration of the global problem of crime and punishment. The course investigates how the global processes of colonialism, industrialization, capitalism and liberalization affected modern criminal justice and thus the state-society relationship and modern citizenry in different cultures across time and space.
Same as HISD06H3

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: HISD06H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

GASD20H3 - Advanced Seminar: Social Change and Gender Relations in Chinese Societies

This seminar examines the transformation and perpetuation of gender relations in contemporary Chinese societies. It pays specific attention to gender politics at the micro level and structural changes at the macro level through in-depth readings and research.
Same as SOCD20H3

Prerequisite: [SOCB05H3 and one C-level course in SOC] or [GASA01H3 and GASA02H3 and one C-level course from the options in requirement #2 of the Specialist or Major programs in Global Asia Studies]
Exclusion: SOCD20H3
Recommended Preparation: GASB20H3 and GASC20H3
Enrolment Limits: 20
Note: Topics vary from year to year. Check the Global Asia Studies website at http://www.utsc.utoronto.ca/~hcs/programs/global-asia-studies.html for current offerings.

GASD30H3 - Gender and Techno-Orientalism

This course examines how popular culture projects its fantasies and fears about the future onto Asia through sexualized and racialized technology. Through the lens of techno-Orientalism this course explores questions of colonialism, imperialism and globalization in relation to cyborgs, digital industry, high-tech labor, and internet/media economics. Topics include the hyper-sexuality of Asian women, racialized and sexualized trauma and disability. This course requires student engagement and participation. Students are required to watch films in class, and creative assignments such as filmmaking and digital projects are encouraged. Same as WSTD30H3

Prerequisite: 1.0 credit at the B-level and 1.0 credit at the C-level in WST courses or other Humanities and Social Sciences courses
Exclusion: WSTD30H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in the Major/Major Co-op and Minor programs in Women's and Gender Studies, and the Specialist, Major and Minor programs in Global Asia Studies. Additional students will be admitted as space permits.

GASD40H3 - Senior Seminar: Issues in Chinese Media Studies

The Chinese government has played a central role in the development of print, electronic and digital media. Recent changes in the political economy of Chinese media have had strong political and cultural implications. This senior seminar course examines the complex and dynamic interplay of media and politics in contemporary China.

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS courses] and [0.5 credit at the C-level in GAS courses]
Enrolment Limits: 15
Note: Topics vary from year to year. Check the website www.utsc.utoronto.ca/~hcs/programs/global-asia-studies.html for current offerings.

GASD53H3 - Africa and Asia in the First World War

This seminar course examines the First World War in its imperial and colonial context in Africa and Asia. Topics include forgotten fronts in Africa, the Middle East, Asia and the Pacific, colonial armies and civilians, imperial economies and resources, the collapse of empires and the remaking of the colonial world.

Same as AFSD53H3 and HISD53H3

Prerequisite: 8.0 credits, including: 1.0 credit in AFS, GAS or Africa and Asia area HIS courses
Exclusion: AFSD53H3, HISD53H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

GASD54H3 - Aqueous History: Water-Stories for a Future

This upper-level seminar will explore how water has shaped human experience. It will explore water landscapes, the representation of water in legal and political thought, slave narratives, and water management in urban development from the 16th century. Using case studies from South Asia and North America we will understand how affective, political and social relations to water bodies are made and remade over time.

Same as HISD54H3

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: HISD54H3

GASD56H3 - 'Coolies' and Others: Asian Labouring Diasporas in the British Empire

'Coolie' labourers formed an imperial diaspora linking South Asia and China to the Caribbean, Africa, the Indian Ocean, South-east Asia, and North America. The long-lasting results of this history are evident in the cultural and ethnic diversity of today's Caribbean nations and Commonwealth countries such as Great Britain and Canada.
Same as HISD56H3

Prerequisite: [8.0 credits, at least 2.0 credits should be at the B- or C-level in GAS or Modern History courses] or [15.0 credits, including SOCB60H3]
Exclusion: HISD56H3
Breadth Requirements: History, Philosophy & Cultural Studies

GASD58H3 - Culture, Politics, and Society in Late Imperial China

A study of major cultural trends, political practices, social customs, and economic developments in late imperial China (1400-1911) as well as their relevance to modern and contemporary China. Students will read the most recent literature and write a substantive research paper.
Same as HISD58H3

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: HISD58H3
Recommended Preparation: GASB58H3/HISB58H3 or GASC57H3/HISC57H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

GASD59H3 - Law and Society in Chinese History

A seminar course on Chinese legal tradition and its role in shaping social, political, economic, and cultural developments, especially in late imperial and modern China. Topics include the foundations of legal culture, regulations on sexuality, women's property rights, crime fictions, private/state violence, laws of ethnicities, prison reforms and modernization. Same as HISD59H3

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: HISD59H3
Recommended Preparation: GASB58H3/HISB58H3 or GASC57H3/HISC57H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

GASD71H3 - Cuisine, Culture, and Societies Across Global Asia

Examines the central place of cuisine to families, societies, and cultures across Global Asian societies and their diasporas, using tastes, culinary work techniques, community-based research, oral histories, digital humanities and multi-media experiential learning, as well as critical reading and writing.

Prerequisite: 8.0 credits, including 1.0 credit from any program offered by the Department of Historical and Cultural Studies
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

Health Studies

Faculty List

- L. Bisaillon, B.A. (Bishop's University), M.Pl. (McGill), Ph.D. (Ottawa), Assistant Professor
- H. Brown, B.A. (Queen's), M.Sc. (Queen's), Ph.D. (Western), Assistant Professor
- A. Charise, B.A., B.Sc. (McMaster), M.A. (Western), Ph.D. (Toronto), Assistant Professor
- O. Ezezika, B.Sc. (University of Lagos), Ph.D. (University of Georgia), M. Env. Management (Yale), Assistant Professor, Teaching Stream
- J. Fields, B.A. (New York Univ.), MA (UNC Chapel Hill), Ph.D. (UNC Chapel Hill), Professor
- C. Hartblay, B.A. (Macalaster), M.A. (UNC Chapel Hill), Ph.D. (UNC Chapel Hill), Assistant Professor
- S.R. Sicchia, M.H.Sc. (Toronto), M.Sc.(Toronto), Ph.D., (Toronto), Associate Professor, Teaching Stream
- M. Silver, B.A., B.S., & M.P.P. (Univ. California, Berkeley), Ph.D. (Univ. of Chicago), Associate Professor
- N. Spence, B.A. (Western), Ph.D. (Western), Assistant Professor
- L.J.S. Tsuji, B.Sc. (Toronto), DDS (Toronto), Ph.D. (York), Professor

Director: J. Fields Email: ichs-director@utsc.utoronto.ca
Program Coordinator: B. Gonzalez-Shin Email: ICHSadvisor.utsc@utoronto.ca
Associate Director, Undergraduate: S. Sicchia, Email: suzanne.sicchia@utoronto.ca

The Department of Health and Society formally known as the Interdisciplinary Centre for Health and Society (ICHS) offers two interdisciplinary Major programs that provide students with a critical and comprehensive understanding of health, the biological and social determinants of health, and the impacts of public policy on health and well-being. In the Major/Major (Co-op) Program in Health Studies - Population Health (B.Sc.), students focus on the biological and environmental determinants of health, epidemiology, ageing and the life cycle, and the importance of social and behavioural determinants of health. In the Major/Major (Co-op) Program in Health Studies - Health Policy (B.A.), students examine the character and consequences of different health care systems, public health policies, and governmental and civil society responses to ongoing societal issues related to health.

The Department of Health and Society also offers Canada’s first Minor Program in Health Humanities, which explores human health and illness through the methods and materials of the creative arts and interpretive social sciences.

In addition to pursuing a rich core curriculum, students are strongly encouraged to diversify their learning by drawing upon relevant courses in various programs including Anthropology, Arts, Culture and Media Studies, Economics, Environmental Studies, Human Biology, International Development Studies, Mental Health, Philosophy, Public Policy, Sociology, and Statistics.

The Minor Program in Health Studies is suspended to new enrolments. Students who are already enrolled in the Program should consult the 2012-13 *Calendar*.

Students are encouraged to contact the Program Advisor or Associate Director, Undergraduate to discuss program requirements and their individual course of study.

Planning a Program in Health & Society
Students are advised to take required courses in the Major programs as early in their careers as possible. HLTA02H2 and HLTA03H3 should be taken during the first year. Failure to do so may lead to timetable conflicts and could prolong the completion of the program. Normally, students select whether to pursue the Health Policy stream (which leads to a B.A. degree) or the Population Health stream (which leads to a B.Sc. degree) at the beginning of their second year of study.

Prerequisites:
Students are not permitted to register in courses for which they have not completed the prerequisites indicated in the *Calendar*. Students may only enter a course for which they lack the prerequisites by obtaining the permission of the Program Advisor prior to registration. Ineligible students will be removed from courses.

Program Exclusion:
The Major/Major (Co-op) Program in Health Studies - Population Health (B.Sc.) and Major/Major (Co-op) Program in Health Studies - Health Policy (B.A.) cannot be combined.

Special Topic Courses:
Themes for special topic courses will vary year to year. For more information please visit the Department of Health and Society website.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Health Studies Programs

MAJOR PROGRAM IN HEALTH STUDIES - HEALTH POLICY (ARTS)

Program Requirements
This program requires the completion of 8.0 credits, as described below.

CORE (5.5 Credits)

1. 1.0 credit at A-level:
HLTA02H3 Foundations of Health Studies I
HLTA03H3 Foundations of Health Studies II

2. 2.5 credits as follows:
HLTB16H3 Introduction to Public Health
HLTB41H3 Introduction to the Social Determinants of Health
HLTB50H3 Introduction to Health Humanities
PHLB09H3 Biomedical Ethics
[STAB22H3 Statistics I or STAB23H3 Introduction to Statistics for the Social Sciences]

3. 1.0 credits as follows:
HLTB15H3 Introduction to Health Research Methodology
HLTB40H3 Health Policy and Health Systems

4. 0.5 credit at the D-level in HLT courses

OPTIONS (2.5 credits)

5. 0.5 credit at the B-level from the following:
HLTB11H3 Basic Human Nutrition
HLTB20H3 Contemporary Human Evolution and Variation

6. 0.5 credit at the B-level from the following:
GGRB28H3 Geographies of Disease
HLTB11H3 Basic Human Nutrition (if not used towards requirement 5)
HLTB20H3 Contemporary Human Evolution and Variation (if not used towards requirement 5)
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB60H3 Introduction to Interdisciplinary Disability Studies
IDSB04H3 Introduction to International/Global Health*
*__Note__: IDSB04H3 has prerequisites that are not part of this program.

7. 0.5 credits at the C-level from the following:
HLTC27H3 Community Health and Epidemiology
ANTC67H3 Foundations in Epidemiology

8. 1.5 credits at the C-level from the following:
ANTC24H3 Culture, Mental Illness, and Psychiatry
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
HLTC02H3 Gender and Health
HLTC04H3 Critical Qualitative Health Research Methods
HLTC16H3 Introduction to Health Information Systems
HLTC17H3 Introduction to Rehabilitation Sciences
HLTC19H3 Chronic Diseases
HLTC22H3 Health, Aging and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs
HLTC43H3 Politics of Canadian Health Policy
HLTC44H3 Comparative Health Policy Systems
HLTC46H3 Globalization, Gender and Health
HLTC47H3 Special Topics in Health Studies
HLTC48H3 Special Topics in Health Studies
HLTC49H3 Indigenous Health
HLTC50H3 The Human-Animal Interface
HLTC51H3 Special Topics in Health and Society
HLTC52H3 Special Topics in Health Humanities
HLTD11H3 Program and Policy Evaluation
IDSC11H3 Issues in Global and International Health*
*__Note__: IDSC11H3 has prerequisites that are not part of this program.

MAJOR (CO-OPERATIVE) PROGRAM IN HEALTH STUDIES - HEALTH POLICY (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Health Studies - Health Policy is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Health Policy upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including HLTA02H3 and HLTA03H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Health Studies - Health Policy.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Health Studies - Health Policy and have completed at least 9.0 credits, including all of the courses identified in components 1, 2, 3, 5 and 6 of the program requirements.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester

however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN HEALTH STUDIES - POPULATION HEALTH (SCIENCE)

Program Requirements
This program requires the completion of 8.0 credits, as described below.

CORE (5.5 credits)

1. 1.5 credits at A-level:
[BIOA11H3 Introduction to the Biology of Humans or BIOA01H3 Life on Earth: Unifying Principles]
HLTA02H3 Foundations of Health Studies I
HLTA03H3 Foundations of Health Studies II

2. 2.5 credits at B-level:
[HLTB11H3 Basic Human Nutrition or BIOB35H3 Essentials of Human Physiology]
HLTB16H3 Introduction to Public Health
HLTB22H3 Biological Determinants of Health
PHLB09H3 Biomedical Ethics
[STAB22H3 Statistics I or STAB23H3 Introduction to Statistics for the Social Sciences]

3. 0.5 credit:
HLTB15H3 Introduction to Health Research Methodology

4. 0.5 credit at the D-level in HLT courses

OPTIONS (2.5 credits)

5. 0.5 credit at the B-level from the following:
HLTB41H3 Introduction to the Social Determinants of Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB50H3 Introduction to Health Humanities

6. 0.5 credit at the B-level from the following:
GGRB28H3 Geographies of Disease
HLTB20H3 Contemporary Human Evolution and Variation
HLTB41H3 Introduction to the Social Determinants of Health (if not used towards requirement 5)
HLTB50H3 Introduction to Health Humanities (if not used towards requirement 5)

HLTB60H3 Introduction to Interdisciplinary Disability Studies
STAB27H3 Statistics II

7. 0.5 credits at the C-level from the following:

HLTC27H3 Community Health and Epidemiology

ANTC67H3 Foundations in Epidemiology

8. 1.5 credits at the C-level from the following:
ANTC68H3 Deconstructing Epidemics
HLTC04H3 Critical Qualitative Health Research Methods
HLTC16H3 Introduction to Health Information Systems
HLTC17H3 Introduction to Rehabilitation Sciences
HLTC19H3 Chronic Diseases
HLTC22H3 Health, Aging and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC24H3 Environment and Health
HLTC25H3 Infectious Diseases
HLTC26H3 Global Health and Human Biology
HLTC28H3 Special Topics in Health Studies
HLTC29H3 Special Topics in Health Studies
HLTC48H3 Special Topics in Health Studies

HLTC49H3 Indigenous Health

HLTC51H3 Special Topics in Health and Society

MAJOR (CO-OPERATIVE) PROGRAM IN HEALTH STUDIES - POPULATION HEALTH (SCIENCE)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Health Studies - Population Health is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Population Health upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements

The minimum qualifications for entry are 4.0 credits, including HLTA02H3 and HLTA03H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:

Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:

In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Health Studies - Population Health.

Co-op Work Term Requirements

Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Health Studies - Population Health and have completed at least 9.0 credits, including all of the courses from components 1, 2, 3, 5 and 6 of the program requirements.

In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.

- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN HEALTH HUMANITIES (ARTS)

The Minor in Health Humanities provides an interdisciplinary exploration of human health and illness through the methods and materials of the creative arts, humanities, and critical social sciences. Students' understanding of the humanistic, philosophical, historical, and artistic study of health—past and present—will be developed by attending closely to how literature, philosophy, history, and critical social sciences reveal the aesthetic, ethical, and multicultural contexts of health, disability, medical research and policy. This interdisciplinary Minor program is open to all undergraduates regardless of major or disciplinary backgrounds. See the following website for more information.
Students will note that some courses at the B-, C-, and D-levels may have additional prerequisites; therefore, students selecting the Minor as a Subject POSt must choose their courses carefully to ensure that they have the necessary prerequisites. Permission to count courses indicated by an asterisk (*) towards the Minor in Health Humanities must be received from the Program Supervisor, and will be granted in cases where the student's work demonstrably engages Health Humanities-related content and/or research methods.

Note: Relevant Health Humanities-related courses selected from other academic units and disciplines, not already listed below, may be approved for the Minor in Health Humanities on a case-by-case basis. Please consult the Program Supervisor to determine the potential eligibility of relevant courses that are not listed below.

Program Requirements
This program requires the completion of 4.0 credits, as follows:

1. 1.0 credit at the B-level:
HLTB50H3 Introduction to Health Humanities
PHLB09H3 Biomedical Ethics

2. 0.5 credit to be chosen from:
ENGA02H3 Critical Writing about Literature
ENGB02H3 Effective Writing in the Sciences

3. 0.5 credit from:
HLTC55H3 Methods in Arts-Based Health Research

4. At least 0.5 credit at the C-level to be chosen from the following*:
ANTC24H3 Culture, Mental Illness, and Psychiatry
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
HLTC50H3 The Human-Animal Interface
HLTC52H3 Special Topics in Health Humanities
HLTD54H3 Toronto's Stories of Health and Illness
VPMC02H3 Music, Health and Wellness
WSTC12H3 Writing the Self: Global Women's Autobiographies
WSTC40H3 Gender and Disability

5. 0.5 credit at the D-level to be chosen from the following*:
ANTD01H3 The Body in Culture and Society
ANTD10H3 The Anthropology of 'Life' Itself
ENGD12H3 Topics in Life Writing
HLTD07H3 Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy'
HLTD50H3 Special Topics in Health Humanities
HLTD51H3 Aging and the Arts
HLTD52H3 Special Topics in Health: Health Histories
HLTD53H3 Special Topics in Health Humanities
HLTD54H3 Toronto's Stories of Health and Illness

6. 1.0 credits to be chosen from the following*:
ANTC24H3 Culture, Mental Illness, and Psychiatry (if not used to complete Requirement 4)
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective (if not used to complete Requirement 4)
ANTD01H3 The Body in Culture and Society (if not used to complete Requirement 4)
ANTD10H3 The Anthropology of 'Life' Itself (if not used to complete Requirement 4)
CTLB03H3 Introduction to Service Learning
ENGA02H3 Critical Writing about Literature (if not used to complete Requirement 3)
ENGB02H3 Effective Writing in the Sciences (if not used to complete Requirement 3)
ENGB12H3 Life Writing
ENGB52H3 Literature and Science
ENGB74H3 The Body in Literature and Film
ENGC44H3 Self and Other in Literature and Film
ENGD12H3 Topics in Life Writing (if not used to complete Requirement 5)
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB60H3 Introduction to Interdisciplinary Disability Studies
HLTC50H3 The Human-Animal Interface (if not used to complete Requirement 4)
HLTC52H3 Special Topics in Health Humanities (if not used to complete Requirement 4)
HLTD01H3 Directed Readings in Health Studies**
HLTD07H3 Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy'

(if not used to complete Requirement 5)
HLTD50H3 Special Topics in Health Humanities (if not used to complete Requirement 5)
HLTD51H3 Aging and the Arts (if not used to complete Requirement 5)
HLTD52H3 Special Topics in Health: Health Histories (if not used to complete Requirement 5)
HLTD53H3 Special Topics in Health Humanities (if not used to complete Requirement 5)
HLTD54H3 Toronto's Stories of Health and Illness (if not used to complete Requirement 5)
HLTD71Y3 Directed Research in Health Studies **
VPMC02H3 Music, Health and Wellness
WSTC12H3 Writing the Self: Global Women's Autobiographies (if not used to complete Requirement 4)
WSTC40H3 Gender and Disability (if not used to complete Requirement 4)

Notes:
1. The courses listed in requirements 4, 5, and 6 (designated with a *) engage methods, content, and/or issues relevant to arts and humanities-based approaches to health. They provide students with the opportunity to explore more specialized topics related to Health Humanities based on their academic interests and professional aspirations.
2. 0.5 credit can be earned by taking for-credit fine arts classes (e.g., music performance, visual arts, creative writing, etc).
3. Permission to count CLTB03H3 (**), HLTD01H3, (**) or HLTD71Y3 (**) towards the Minor in Health Humanities must be received from the Program Supervisor. Permission will be granted only in cases where the student's work demonstrably engages Health Humanities-related content and/or research methods.

HLTA02H3 - Foundations in Health Studies I

This the first part of a sequence of two courses designed to introduce theory, contemporary topics, and analytical techniques related to the study of health issues. Examples of topics include: social determinants of health, basic anatomy, introduction to child development, introduction to the life course and aging, disease, health economics and policy, and applicable research methods.

Exclusion: HST209H1
Breadth Requirements: Social & Behavioural Sciences

Health Studies Courses

HLTA03H3 - Foundations in Health Studies II

This the second part of a sequence of two courses designed to introduce theory, contemporary topics, and analytical techniques related to the study of health issues. Examples of topics include: social determinants of health, basic anatomy, introduction to child development, introduction to the life course and aging, disease, health economics and policy, and applicable research methods.

Prerequisite: HLTA02H3
Breadth Requirements: Social & Behavioural Sciences

HLTB11H3 - Basic Human Nutrition

An introductory course to provide the fundamentals of human nutrition to enable students to understand and think critically about the complex interrelationships between food, nutrition, health and environment.

Prerequisite: HLTA02H3 and HLTA03H3
Exclusion: NFS284H1
Breadth Requirements: Natural Sciences

HLTB15H3 - Introduction to Health Research Methodology

The objective of this course is to introduce students to the main principles that are needed to undertake health-related research. Students will be introduced to the concepts and approaches to health research, the nature of scientific inquiry, the role of empirical research, and epidemiological research designs.

Prerequisite: [HLTA02H3 and HLTA03H3 and any Statistics course] or [any 4.0 credits, including SOCB60H3]
Exclusion: (HLTA10H3)
Breadth Requirements: Social & Behavioural Sciences

HLTB16H3 - Introduction to Public Health

This course will present a brief history about the origins and development of the public health system and its role in health prevention. Using a case study approach, the course will focus on core functions, public health practices, and the relationship of public health with the overall health system.

Prerequisite: HLTA02H3 and HLTA03H3
Breadth Requirements: Social & Behavioural Sciences

HLTB20H3 - Contemporary Human Evolution and Variation

Basic to the course is an understanding of the synthetic theory of evolution and the principles, processes, evidence and application of the theory. Laboratory projects acquaint the student with the methods and materials utilized Biological Anthropology. Specific topics include: the development of evolutionary theory, the biological basis for human variation, the evolutionary forces, human adaptability and health and disease.
Science credit
Same as ANTB15H3

Prerequisite: ANTA01H3 or [HLTA02H3 and HLTA03H3]
Exclusion: ANTB15H3, ANT203Y
Breadth Requirements: Natural Sciences

HLTB22H3 - Biological Determinants of Health

This course is an introduction to the basic biological principles underlying the origins and development of both infectious and non-infectious diseases in human populations. It covers population genetics and principles of inheritance.

Prerequisite: HLTA02H3 and HLTA03H3 and [BIOA11H3 or BIOA01H3]
Breadth Requirements: Natural Sciences

HLTB30H3 - Current Issues in Health

An interdisciplinary consideration of current and pressing issues in health, including health crises, care, education, policy, research, and knowledge mobilization and translation. The course will focus on emerging questions and research, with attention to local and global experts from a range of disciplines and sectors.

Recommended Preparation: HLTA02H3 and HLTA03H3
Enrolment Limits: 250 students
Note: Priority will be given to students enrolled in the Major and Minor programs in ICHS.

HLTB40H3 - Health Policy and Health Systems

This course focuses on public and private financing mechanisms for health care in Canada, emphasizing provincial differences and discussing the systems in place in other developed nations. Topics will include the forces of market competition and government regulation as well as the impact of health policy on key stakeholders. Students will also learn how to apply simple economic reasoning to examine health policy issues.

Prerequisite: HLTA02H3 and HLTA03H3
Exclusion: HST211H1
Breadth Requirements: Social & Behavioural Sciences

HLTB41H3 - Introduction to the Social Determinants of Health

This course introduces students to Social Determinants of Health (SDOH) approaches to reducing health inequities, and improving individual and population health. Students will critically explore the social, political, economic, and historic conditions that shape the everyday lives, and influence the health, of people.

Prerequisite: HLTA02H3 and HLTA03H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in Health Studies programs.

HLTB42H3 - Perspectives of Culture, Illness and Healing

This course introduces students to anthropological perspectives of culture, society, and language, to foster understanding of the ways that health intersects with political, economic, religious and kinship systems. Topics will include ethnographic theory and practice, cultural relivatism, and social and symbolic meanings and practices regarding the body.

Prerequisite: HLTA02H3 and HLTA03H3
Breadth Requirements: Social & Behavioural Sciences

HLTB50H3 - Introduction to Health Humanities

An introduction to human health through literature, narrative, and the visual arts. Students will develop strong critical skills in text-centered methods of analysis (i.e., the written word, visual images) through topics including representations of health, illness narratives, death and dying, patient-professional relationships, technoscience and the human body.

Prerequisite: Any 4.0 credits
Recommended Preparation: Prior experience in humanities courses at the secondary or post-secondary level.
Breadth Requirements: Arts, Literature & Language
Note: Preference will be given to students enrolled in a Health Studies program.

HLTB60H3 - Introduction to Interdisciplinary Disability Studies

An introduction to interdisciplinary disability studies through humanities, social science, and fine arts, with a strong basis in a social justice orientation that understands disability as a relational, social, and historical symbolic category, and ableism as a form of oppression. Students will develop strong critical skills in interpretation and analysis of artworks (i.e., the written word, visual images, performance) and theoretical texts. Topics including representations of disability in media, including literature and film; medicalization and tropes of disability; disability activism; and intersectional analysis of disability in relation to gender, race, sexuality, ethnicity, and class.

Prerequisite: Completion of 2.0 credits with a cGPA of at least 2.7
Enrolment Limits: 220
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Students considering a Major program in Health Studies should complete HLTA02H3 and HLTA03H3 prior to enrolling in this course.

HLTC02H3 - Women and Health: Past and Present

This course uses historical, anthropological, philosophical approaches to further understand the relationships intertwining women, health and society. Women's interactions with the health sector will be examined. Particular attention will be devoted to the social and gender construction of disease and the politics of women's health.

Prerequisite: HLTB41H3
Breadth Requirements: Social & Behavioural Sciences

HLTC04H3 - Critical Qualitative Health Research Methods

Students will develop a curiosity and awareness about critical approaches to studying health and illness. They will learn what it means to be a critical qualitative health researcher. They will understand how to engage in transformative critical health research practice that questions taken-for-granted assumptions about the social world, and, in the process, students will develop new conceptual and applied skills. Students will draw from interdisciplinary knowledge sources to develop strategies for designing and carrying out critically informed health research projects.

Prerequisite: HLTB15H3
Recommended Preparation: Prior experience in social sciences courses.
Breadth Requirements: Social & Behavioural Sciences

HLTC16H3 - Introduction to Health Information Systems

An introduction to the fundamental concepts in health informatics (HI) and the relevance of HI to current and future Canadian and international health systems. Students will be introduced to traditional hospital-based/clinician-based HI systems, as well as present and emerging applications in consumer and public HI, including global applications.

Prerequisite: HLTB16H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op programs in Health Studies.

HLTC17H3 - Introduction to Rehabilitation Sciences

This course will provide students with an introduction to the rehabilitation sciences in the Canadian context. Students will gain knowledge regarding the pressing demographic needs for rehabilitation services and research, as well as the issues affecting the delivery of those services.

Prerequisite: HLTB16H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op programs in Health Studies.

HLTC19H3 - Chronic Diseases

This course will introduce students to the regional, national, and global patterns of chronic disease and demonstrate how demography, behaviour, socio-economic status, and genetics impact patterns of chronic disease in human populations. Using epidemiological studies we will examine these patterns, assess their complex causes, and discuss strategies for broad-based preventative action.

Prerequisite: HLTB22H3 or HLTB41H3
Exclusion: (HLTC07H3), (HLTC21H3)
Breadth Requirements: Natural Sciences

HLTC22H3 - Health, Aging and the Life Cycle

This course focuses on the transition from birth to old age and changes in health status. Topics to be covered include: socio-cultural perspectives on aging, the aging process, chronic and degenerative diseases, caring for the elderly.

Prerequisite: HLTB22H3 or HLTB41H3
Exclusion: (HLTB01H3), HST308H1
Breadth Requirements: Social & Behavioural Sciences

HLTC23H3 - Issues in Child Health and Development

This course will explore bio-social aspects of health and development in children. Topics for discussion include genetics and development, growth and development, childhood diseases, the immune system, and nutrition during the early years.

Prerequisite: HLTB22H3 or HLTB41H3
Exclusion: (HLTB02H3)
Breadth Requirements: Social & Behavioural Sciences

HLTC24H3 - Environment and Health

Environmental issues are often complex and require a holistic approach where the lines between different disciplines are often obscured. The environment, as defined in this course, includes the natural (biological) and built (social, cultural, political) settings. Health is broadly defined to include the concept of well-being. Case studies will be used to illustrate environment and health issues using an ecosystem approach that includes humans as part of the ecosystem.

Prerequisite: HLTB22H3
Exclusion: (ANTB56H3), (HLTB04H3)
Breadth Requirements: Natural Sciences

HLTC25H3 - Infectious Diseases

Adopting ecological, epidemiological, and social approaches, this course examines the impact of infectious disease on human populations. Topics covered include disease ecology, zoonoses, and the role of humans in disease occurrence. The aim is to understand why infectious diseases emerge and how their occurrence is intimately linked to human behaviours.

Prerequisite: HLTB22H3
Exclusion: (HLTB21H3)
Breadth Requirements: Natural Sciences

HLTC26H3 - Global Health and Human Biology

This course will apply students' knowledge of health studies and human biology to solving real-life cases in global health, such as the Ebola outbreaks in Africa or the acute toxic encephalopathy mystery illness among children in India. This case-study-oriented course will focus on the application of human biology principles in addressing current cases in global health.

Prerequisite: HLTB22H3
Exclusion: HLTC28H3 if taken in the Winter 2018 or the Winter 2019 semester
Enrolment Limits: 60
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enroled in the Major/Major Co-op program in Health Studies - Population Health

HLTC27H3 - Community Health and Epidemiology

Epidemiology is the study or the pattern and causes of health-related outcomes and the application of findings to improvement of public health. This course will examine the history of epidemiology and its principles and terminology, measures of disease occurrence, study design, and application of concepts to specific research areas.

Prerequisite: HLTB15H3 and HLTB16H3 and any statistics course
Exclusion: ANTC67H3
Breadth Requirements: Quantitative Reasoning
Note: Priority will be given to students enrolled in the Major/Major Co-op programs in Health Studies.

HLTC28H3 - Special Topics in Health Studies

An examination of a current topic relevant to health studies. The specific topic will vary from year to year, and may include: Ecosystem Approaches to Zoonotic Disease; Climate Change and Health; Food Insecurity, Nutrition, and Health; Health and the Human-Insect Interface.

Prerequisite: HLTB22H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op programs in Health Studies.

HLTC29H3 - Special Topics in Health Studies

An examination of a current topic relevant to health studies. The specific topic will vary from year to year, and may include: Ecosystem Approaches to Zoonotic Disease; Climate Change and Health; Food Insecurity, Nutrition, and Health; Health and the Human-Insect Interface.

Prerequisite: HLTB22H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op programs in Health Studies.

HLTC42H3 - Emerging Health Issues and Policy Needs

This course takes an interdisciplinary approach to helping students prepare to tackle complex emerging health issues and to explore ways of addressing these issues through public policy. A range of contemporary and newly-emerging health issues are discussed and analyzed in the context of existing policy constraints within Canada and worldwide.

Prerequisite: HLTB40H3
Breadth Requirements: Social & Behavioural Sciences

HLTC43H3 - Politics of Canadian Health Policy

This course examines the role of all levels of Canadian government in health and health care. The impact of public policies, health care policy, and access to health care services on the health of populations is considered. The course also examines the role of political parties and social movements in the policy change process.

Prerequisite: HLTB40H3
Exclusion: (POLC55H3), (HLTC03H3)
Breadth Requirements: Social & Behavioural Sciences

HLTC44H3 - Comparative Health Policy Systems

This course surveys a selection of health care systems worldwide in relation to financing, reimbursement, delivery systems and adoption of new technologies. In this course students will explore questions such as: which systems and which public/private sector mixes are better at achieving efficiency and equity? How do these different systems deal with tough choices, such as decisions about new technologies? The set of international health care systems we focus on are likely to vary by term but will include a subset of OECD countries as well as countries with large populations that are heavily represented in Toronto such as China and India.

Prerequisite: HLTB40H3
Breadth Requirements: Social & Behavioural Sciences

HLTC46H3 - Globalization, Gender and Health

This interdisciplinary course draws on diverse theoretical and analytical approaches that span the humanities, social sciences and life sciences to critically explore the diverse relationships between gender and health, in local and global contexts. Particular attention is given to intersections between sex, gender and other social locations and processes that impact health and health inequities across the lifespan, including the impacts of ableism, colonialism, hetero-normativity, poverty, racialization, and sexism on women's and men's health, and related health research and practice. Through course readings, case studies, group discussions, class activities, and course assignments, students will apply these theoretical lenses and develop analytical skills that : (1) advance a more contextualized understanding of gender and health across the lifespan, (2) provide important insights into gendered health inequities, and (3) speak to strategies and social movements that begin to address these challenges.

Prerequisite: HLTB41H3 or IDSB04H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op program in Health Studies.

HLTC47H3 - Special Topics in Health Studies

An examination of a current topic relevant to health studies. The specific topic will vary from year to year, and may include: Social Justice and Health Activism; Climate Change and Health; Labour, Precarity, and Health.

Prerequisite: HLTB41H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op program in Health Studies.

HLTC48H3 - Special Topics in Health Studies

An examination of a current topic relevant to health studies. The specific topic will vary from year to year. Topics may include: Social Justice and Health Activism; Climate Change and Health; Labour, Precarity, and Health.

Prerequisite: HLTB41H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major/Major Co-op programs in Health Studies.

HLTC49H3 - Indigenous Health

This course will examine the health and well-being of Indigenous peoples, given historic and contemporary issues. A critical examination of the social determinants of health, including the cultural, socioeconomic and political landscape, as well as the legacy of colonialism, will be emphasized. An overview of methodologies and ethical issues working with Indigenous communities in health research and developing programs and policies will be provided. The focus will be on the Canadian context, but students will be exposed to the issues of Indigenous peoples worldwide.
Same as SOCC49H3

Prerequisite: HLTB41H3 or [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3 , SOCB42H3, SOCB43H3, SOCB47H3]]
Exclusion: SOCC49H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

HLTC50H3 - The Human-Animal Interface

An intensive, interdisciplinary study of the human-animal relationship as represented through a range of literature, film, and other critical writings. Students will explore the theoretical underpinnings of “animality” as a critical lens through which human identity, health, and policy are conceptualized. Key topics include: animals in the human imagination, particularly in relation to health; animal-human mythologies; health, ethics, and the animal.

Prerequisite: HLTB50H3
Recommended Preparation: Prior experience in humanities courses at the secondary or post-secondary level.
Breadth Requirements: Arts, Literature & Language

HLTC51H3 - Special Topics in Health and Society

An examination of a current topic relevant to the study of health and society. The specific topic will vary from year to year.

Same as SOCC51H3

Prerequisite: HLTB41H3 or [[SOCB05H3 or SOCB35H3] and [0.5 from SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]]
Exclusion: SOCC51H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major programs in Health Studies.

HLTC52H3 - Special Topics in Health Humanities

An examination of a current topic in Health Humanities. The specific topic will vary from year to year.

Prerequisite: HLTB50H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language

HLTC55H3 - Methods in Arts-Based Health Research

This course introduces students to the practice of arts-based health research (ABHR), which involves the formal integration of creative art forms into health research methods and outcomes. Students will learn about the conceptual foundations of ABHR and explore various methods for generating, interpreting and representing health-related research (e.g., narrative, performance, visual arts, digital storytelling, or body mapping). With reference to concrete exemplars and experiential learning in creative forms, students will examine critical issues of methodological quality, evidence, research ethics, implementation challenges, and opportunities for arts-based health research in Canada and the global context.

Prerequisite: HLTB50H3 and HLTB15H3
Recommended Preparation: PHLB09H3, HLTC04H3
Enrolment Limits: 40
Breadth Requirements: Arts, Literature & Language

HLTD01H3 - Directed Readings in Health Studies

This is an advanced reading course in special topics for upper level students who have completed the available basic courses in Health Studies and who wish to pursue further intensive study on a relevant topic. Topic selection and approval will depend on the supervising instructor.

Prerequisite: Completion of at least 6.0 credits, including at least 1.5 credits at the C-level from the program requirements from one of the Major/Major Co-op programs in Health Studies; students must also have achieved a minimum CGPA of 2.5 and have permission of the instructor

HLTD02H3 - Health Research Seminar

Provides senior students with the opportunity to apply methodological skills to a health research problem. Students will give presentations of their research proposals, and there may be a guest seminar on health research projects.

Prerequisite: Completion of at least 1.5 credits at the C-Level in HLT courses from the program requirements from one of the Major/Major Co-op programs in Health Studies
Enrolment Limits: 25

HLTD04H3 - Special Topics in Health

The topics presented in this course will represent a range of contemporary issues in health research. Topics will vary by instructor and term.

Prerequisite: Completion of at least 1.5 credits from the program requirements from one of the Major/Major Co-op programs in Health Studies
Recommended Preparation: Completion of 1.5 credits at the C-level in HLT courses

HLTD05H3 - Directed Research on Health Services and Institutions

Provides students with the opportunity to analyze work of health institutions. Students taking this course will arrange, in consultation with the instructor, to work as a volunteer in a health institution. They will write a major research paper related to some aspect of their experience.

Prerequisite: Completion of HLTA02H3 and HLTA03H3 and [at least 4.0 credits, including 1.5 at the C-Level in HLT courses, from the requirements of one of the Major/Major Co-operative programs in Health Studies] and [a minimum CGPA of 2.5] and permission of the instructor.
Exclusion: (HLTC01H3)

HLTD06H3 - Special Topics in Migration and Public Health

The focus of this seminar is on public health as an institution and on the contemporary and historical practices related to migrants in Canada and globally. Practices include surveillance, screening, detention, and quarantine, among other forms of governance and regulation. Societal issues, social theory, and historic case studies drawn from literature, film and empirical research explore enduring questions and tensions related to the treatment of migrants by public health systems.

Prerequisite: [HLTB16H3 and [HLTB41H3 or (HLTC05H3)] and [an additional 1.5 credits at the C-level in HLT courses]]; or [SOCB60H3 and an additional 15.0 credits]
Recommended Preparation: Courses in the social sciences (ANT, HLT, IDS, CIT, GGR, POL, SOC)
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

HLTD07H3 - Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy'

This course builds on HLTC17H3 by examining rehabilitation from the perspectives of researchers, clinicians, and clients. The course focuses on the historical role of rehabilitation, not only in improving health, but also in perpetuating the goal of 'normalcy'. Students will examine how rehabilitation impacts people, both at an individual and societal level, and explore the field of disability studies and its critical engagement with the message that disabled people “need to be repaired.”

Prerequisite: HLTC17H3 and an additional 1.5 credits at the C-level in HLT courses from the program requirements from the Major/Major Co-op program in Health Studies - Population Health
Exclusion: HLTD47H3 if taken before Summer 2018
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD08H3 - Special Topics in Health Sciences

An examination of a current health sciences topic. The specific topic will vary from year to year, and may include: clinical epidemiology, an advanced nutrition topic, or the biology and population health impacts of a specific disease or illness condition.

Prerequisite: HLTC27H3 with a minimum grade of 70%; and an additional 1.5 credits at the C-level in HLT courses from the program requirements from the Major/Major Co-op program in Health Studies - Population Health
Recommended Preparation: HLTC19H3 or HLTC25H3
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

HLTD11H3 - Program and Policy Evaluation

This course provides an introduction to the field of program and policy evaluation. Evaluation plays an important role in evidence based decision making in all aspects of society. Students will gain insight into the theoretical, methodological, practical, and ethical aspects of evaluation across different settings. The relative strengths and weaknesses of various designs used in applied social research to examine programs and policies will be covered.

Same as SOCD11H3

Prerequisite: [[STAB22H3 or STAB23H3] and [0.5 credit from HLTC42H3, HLTC43H3, HLTC44H3] and [an additional 1.0 credit at the C-Level in HLT courses from one of the Major/Major Co-op programs in Health Studies]] or [10.0 credits and [SOCB05H3 and SOCB35H3] and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, or SOCB47H3]]
Exclusion: SOCD11H3
Enrolment Limits: 10
Breadth Requirements: Social & Behavioural Sciences

HLTD12H3 - Special Topics in Health

The topics presented in this course will represent a range of contemporary issues in health research. Topics will vary by instructor and term.

Prerequisite: Completion of 1.5 credits at the C-Level in HLT courses from the program requirements from one of the Major/Major Co-op programs in Health Studies
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD13H3 - Special Topics in Health: Global Health and Human Biology

An examination of a current topic relevant to global health, especially diseases or conditions that predominately affect populations in low-income countries. The specific topics will vary from year to year, and may include: HIV/AIDS; insect-borne diseases; the biology of poverty and precarity. The course will provide students with relevant information about social context and health policy, but will focus on the processes of disease transmission and its biological impact on human health.

Prerequisite: Completion of HLTC26H3 and an additional 1.0 credits at the C-level in HLT courses from the program requirements from the Major/Major Co-op program in Health Studies - Population Health
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

HLTD20H3 - Special Topics in Health: Sex, Gender, and the Life Course

An examination of a current health topic relevant to sex, gender, and the life course. The specific topic will vary from year to year, and topics may include: reproductive health; the biology and health impacts of aging; infant feeding, weaning, and nutrition; sexual health among youth. The course will provide students with relevant information about social context and health policy, but will focus on biological processes at specific life stages.

Prerequisite: Completion of 1.5 credits at the C-level in HLT courses from the program requirements from one of the Major/Major Co-op programs in Health Studies
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

HLTD21H3 - Special Topics in Health

The topics presented in this course will represent a range of contemporary issues in health research. Topics will vary by instructor and term.

Prerequisite: Completion of 1.5 credits at the C-level in HLT courses from the program requirements from one of the Major/Major Co-operative programs in Health Studies
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD22H3 - Special Topics in Health

The topics presented in this course will represent a range of contemporary issues in health research. Topics will vary by instructor and term.

Prerequisite: Completion of 1.5 credits at the C-Level in HLT courses from the program requirements from one of the Major/Major Co-operative programs in Health Studies.
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD23H3 - Special Topics in Health

The topics presented in this course will represent a range of contemporary issues in health research. Topics will vary by instructor and term.

Prerequisite: Completion of 1.5 credits at the C-Level in HLT courses from the program requirements from one of the Major/Major Co-operative programs in Health Studies
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD25H3 - Topics in Environmental Health

The didactic portion of this course will examine emerging environmental health issues using case studies. In the hands-on portion of the course, students will learn a range of research skills - how to use the Systematic Reviews and Meta-Analyses (PRISMA) guidelines, evidence-based health and best practices, and the different elements of a successful grant proposal - while honing their researching, writing, and presenting skills.

Prerequisite: HLTC24H3 with a minimum GPA of 2.7 (B-)
Breadth Requirements: Natural Sciences

HLTD26H3 - Embodiment across the Life Course

This course will introduce students to key conceptual and methodological approaches to studying experiences of embodiment at different points in the life course. It draws on range of social and cultural perspectives on bodily activity, exercise, disability, and representations of the body to encourage students to critically examine relationships between sociocultural dynamics and health.

Prerequisite: HLTB15H3 and HLTC22H3 and an additional 1.0 credit at the C-level in HLT courses.
Exclusion: HLTD12H3 if taken in the Winter 2019 semester
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in Health Studies programs offered by the Department of Health and Society.

HLTD27H3 - Food Security, Food Sovereignty, and Health

Food security is an important determinant of health and well being, and yet in many areas of the world there are profound challenges to achieving it. Food sovereignty – the right of peoples to self-determined food production – has an important and complex relationship with food security. This course will examine the implications of food security and food sovereignty for health equity in the context of sub Saharan Africa.

Prerequisite: HLTC26H3 and an additional 1.0 credit at the C-level in HLT courses
Exclusion: HLTD22H3 if taken in Winter 2018 or Fall 2018 semester
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD28H3 - Innovations for Global Health

This course is designed to provide students with an in-depth knowledge of the role of technological and social innovations in global health. Through lectures, case studies, group projects and exciting guest lectures, students will gain an understanding of the process of developing and scaling technological and social innovations in low- and middle-income countries, taking into account the unique socio-cultural, financial and logistical constraints that are present in such settings.

Prerequisite: HLTC26H3 with a minimum grade of 70% and an additional 1.0 credit at the C-level in HLT courses.
Exclusion: [HLTC47H3 if taken in Fall 2017 semester], [HLTD04H3 if taken in Winter 2019 semester]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD29H3 - Special Topics in Health: Inequality, Inequity, and Health

An examination of a current topic in inequality, inequity, marginalization, social exclusion, and health outcomes. Topics may include: health and homelessness, poverty and sexual health, political conflict and refugee health. The course will provide students with relevant information about social context and health policy, but will focus on the physical and mental health impacts of various forms of inequity.

Prerequisite: Completion of 1.5 credits at the C-Level in HLT courses from the program requirements from one of the Major/Major Co-operative programs in Health Studies
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

HLTD47H3 - Special Topics in Health: Advanced Topics in Health and Wellness

An examination of a current topic in health and wellness. Topics may include: disability, addiction, psychosocial wellbeing, social activism around health issues, Wellness Indices, Community Needs and Assets Appraisals. The course will focus on the contributing historical, social, and/or cultural factors, as well as relevant health policies.

Prerequisite: Completion of 1.5 credits at the C-Level in HLT courses from the program requirements from one of the Major/Major Co-operative programs in Health Studies
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD48H3 - Special Topics in Health: Current Issues in Global Health

An examination of a current topic in global health, especially a disease or condition that predominantly impacts populations in low-income countries. The specific topic will vary from year to year. Topics may include: HIV/AIDS; war and violence, insect-borne diseases; policies and politics of water and sanitation; reproductive health and population policies, etc. The course will focus on historical factors, socio-political contexts, and health policies.

Prerequisite: Completion of 1.5 credits at the C-Level in HLT courses from the program requirements from one of the Major/Major Co-operative programs in Health Studies.
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD49H3 - Global Health Governance: Thinking Alongside the World's Leaders

This advanced seminar course explores contemporary topics in global health governance as they are being discussed and debated by world leaders at key international summits, such as the World Health Summit. After developing an understanding of the historical and political economy context of the main actors and instruments involved in global health governance, contemporary global health challenges are explored. Topics and cases change based on global priorities and student interests, but can include: the impact of international trade regimes on global health inequities; the role transnational corporations and non-governmental organizations play in shaping the global health agenda; the impact globalization has had on universal health care and health human resources in low-income countries; and health care during complex humanitarian crises.

Prerequisite: Completion of 1.0 credit at the C-level in HLT courses from the program requirements from one of the Major/Major Co-op programs in Health Studies; an additional 0.5 credit chosen from: HLTC02H3, HLTC43H3, or HLTC46H3
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

HLTD50H3 - Special Topics in Health Humanities

This advanced seminar will provide intensive study of a selected topic in and/or theoretical questions about the health humanities. Topics will vary by instructor and term but may include narrative medicine, stories of illness and healing, representations of older age and aging in literature and film, AIDS and/or cancer writing, representations of death and dying in literature and film, the role of creative arts in health.

Prerequisite: Completion of HLTB50H3 with a minimum grade of 70% and 1.5 credits at the C-level in HLT courses
Breadth Requirements: Arts, Literature & Language

HLTD51H3 - Aging and the Arts

In this advanced seminar students will examine older age using the methods and materials of the humanities, with particular focus on: 1) the representation of aging and older age in the arts; and 2) the role of arts-based therapies and research initiatives involving older people and/or the aging process.

Prerequisite: HLTA03H3 and [HLTB50H3, with a minimum grade of 70%] and [an additional 1.5 credits at the C-level in HLT courses].
Recommended Preparation: Prior experience in humanities courses at the secondary or post-secondary level.
Breadth Requirements: Arts, Literature & Language

HLTD52H3 - Special Topics in Health: Health Histories

An examination of a health topic in historical perspective. The specific topics will vary from year to year, and may include: histories of race, racialization, and health policy; history of a specific medical tradition; or histories of specific health conditions, their medical and popular representations, and their treatment (e.g. historical changes in the understanding and representation of leprosy or depression).

Prerequisite: HLTA03H3 and [HLTB50H3 with a minimum grade of 70%] and [an additional 1.5 credits at the C-level in HLT courses].
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students in the Minor Program in Health Humanities.

HLTD53H3 - Special Topics in Health Humanities

An examination of a current topic in Health Humanities. The specific topic will vary from year to year.

Prerequisite: HLTB50H3 with a minimum grade of 70%; an additional 1.5 credits at the C-level in HLT courses from the program requirements from one of the Major/Major Co-op programs in Health Studies.
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language

HLTD54H3 - Toronto's Stories of Health and Illness

This seminar course explores stories of health, illness, and disability that are in some way tied to the City of Toronto. It asks how the Canadian healthcare setting impacts the creation of illness narratives. Topics will include major theorizations of illness storytelling (“restitution”, “chaos,” and “quest” narratives); narrative medicine; ethics and digital health storytelling.

Prerequisite: HLTB50H3 with a minimum grade of 70% and an additional 1.0 credit at the C-level from the program requirements from the Minor in Health Humanities.
Exclusion: HLTD50H3 if taken in the Winter 2018 semester.
Recommended Preparation: Prior experience in humanities courses at the secondary or post-secondary level is strongly recommended.
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to student enroled in the Minor program in Health Humanities, and students enroled in the Major/Major Co-op programs in Health Studies who are in their graduating year.

HLTD71Y3 - Directed Research in Health Studies

In this year-long directed research course, the student will work with a faculty supervisor to complete an original undergraduate research project. During fall term the student will prepare the research proposal and ethics protocol, and begin data collection. In the winter term the student will complete data collection, analysis, and write-up.

Prerequisite: HLTB15H3 and STAB22H3; and a minimum CGPA of 3.0; and permission of the faculty supervisor and the department's Director.
Breadth Requirements: Social & Behavioural Sciences

HLTD80H3 - Critical Health Education

This course will investigate school- and community-based health education efforts that approach health as a complex social, biological, and cultural experience; critique and challenge prevailing understandings of health; and offer alternative theoretical, pedagogical, and curricular approaches to health and illness. Issues such as sexuality, gender, nation, race, social class, age, ability, and indigeneity will be central concerns in this study of health pedagogy, curriculum, and promotion.

Prerequisite: HLTB41H3 and additional 1.5 credits and minimum cGPA of at least 2.7; or permission of the instructor.
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in any program in Health Studies offered by the Interdisciplinary Centre for Health & Society (ICHS)

Historical and Cultural Studies

The courses identified below are offered for Historical and Cultural Studies.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Historical And Cultural Studies Courses

HCSC01H3 - Experiential Learning in Historical and Cultural Studies

In this experiential learning course, students will have opportunities to apply their HCS program-specific knowledge and skills, develop learning, technology and/or transferable competencies, and serve the GTA community. This experience will allow students to meaningfully contribute to and support projects and activities that address community needs by completing a placement at a community organization.

Prerequisite: Students must be in Year 3 or 4 of their studies, and enrolled in an HCS subject POSt, and must have completed 3.0 credits of their HCS program
Exclusion: CTLB03H3, WSTC23H3
Breadth Requirements: History, Philosophy & Cultural Studies

HCSD05H3 - Intellectual Property in Arts and Humanities

The course provides an introduction to Canada's intellectual property (IP) systems, copyright, patent, trademark and confidential information. Topics include use, re-use and creation of IP, the impact of the digital environment, the national implication of international agreements and treaties and information policy development.

Prerequisite: Any 2.0 credits; and an additional 2.0 credits at the C-level in ACM, Language Studies, HCS, ENG and PHL
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

History

Faculty List

- D.E. Bender, M.A., Ph.D. (New York), Canada Research Chair, Professor
- C. Berkowitz, Ph.D. (Toronto), Associate Professor, Teaching Stream
- K. Blouin, M.A., Ph.D. (Laval and Nice), Associate Professor
- L. Chen, M.A. (SUNY Buffalo), J.D. (Illinois), M.A., M.Ph., Ph.D. (Columbia), Associate Professor
- E.W. Dowler, M.A. (Harvard), Ph.D. (London School of Economics), Professor, Emeritus
- M. Eksteins, B.Phil., D.Phil. (Oxon.), Professor, Emeritus
- D.Gabaccia, M.A., Ph.D. (Michigan), Professor, Emerita
- M. Gervers, A.B. (Princeton), M.A. (Poitiers), Ph.D. (Toronto), Professor
- A. Grewal, M.A., Ph.D. (Chicago), Assistant Professor
- R. Halpern, M.A. (Wisconsin), Ph.D. (Pennsylvania), Professor
- P. Hastings, M.A.(Carlton), Ph.D. (Duke), Assistant Professor
- F. Iacovetta, M.A., Ph.D. (York), Professor, Emerita
- R.A. Kazal, M.A., Ph.D. (Pennsylvania), Associate Professor
- J.S. Moir, M.A., Ph.D. (Toronto), D.D. (Presb. College, Montreal), Professor, Emeritus
- W. Nelson, M.A., Ph.D. (UCLA), Assistant Professor
- J.Pilcher, M.A. (New Mexico), Ph.D. (Texas Christian), Professor
- B. Raman, M.A., Ph.D. (Michigan), Associate Professor
- I.R. Robertson, M.A. (McGill), Ph.D. (Toronto), Professor, Emeritus
- S.J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
- E.N. Rothman, M.A. (Tel Aviv), Ph.D. (Michigan), Associate Professor
- J. Sharma, M.A. (Delhi), M.Phil. (Delhi), Ph.D. (Cambridge), Associate Professor

Undergraduate Advisor (416-287-7184) Email: history-undergrad-advisor@utsc.utoronto.ca

The study of History is vital for our understanding of the present. It offers multiple ways of explaining how the contemporary world emerged, and how past societies differed from our own. The History programs at UTSC provide a dynamic introduction to the global transformations that have taken place over the past two millennia, while also focusing on the experiences and contributions of ordinary people to these transformations. Our curriculum spans the history of all parts of the world in their complex, transnational connections, and covers a broad range of topics, including religion and everyday life, colonialism, gender relations, the history of work, the environment, urbanization, immigration, race and ethnicity, and material culture. Findings in history depend upon the precise evaluation of specific evidence, be it texts, images, or objects, and the History programs emphasize the critical reading, research, and writing skills which are necessary for the study of the past and for a wide range of professional activities beyond the university. Innovative and interdisciplinary, History courses play a part in a number of other programs, including Classics, Global Asia Studies, African Studies, Women and Gender Studies, and Food Studies, and can also complement and enhance courses in Politics, Philosophy, Literature, Arts, Economics, Sociology, Anthropology, and Geography.

The History curriculum encompasses a variety of approaches in order to build a range of knowledge and skills. A-level courses provide both a general introduction to the study of history at the university level and the preparation for further studies in transnational and global history. B-level surveys offer a

comprehensive foundation of knowledge in their particular areas, including the histories of particular nation-states and regions of the world. In C-level courses, students investigate more specific places, periods, or problems through lectures and tutorials. D-level courses are conducted as seminars, where students make close and thorough studies of particular questions and present their findings in discussions, essays, and research papers. History courses at all levels cover a range of periods, from antiquity to the present, and explore a variety of world regions, from North America and Africa, through Europe and the Mediterranean, to South and East Asia. The History curriculum as a whole stresses training in writing, research, and historical methods; these skills are also the focal point of two specialized courses, HISB03H3 and HISC01H3. We likewise offer courses that build digital literacy and provide opportunities for public engagement and experiential learning.

Knowledge of other languages is essential to advanced study in history. If you plan to take history to an advanced level, we strongly encourage the early study of an appropriate language for your program or areas of interest. Specialists may enrol in the Language Stream, which is designed to foster such language training.

For updates and detailed information regarding History, please visit the Department of Historical and Cultural Studies website.

Combined Degree Programs, Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Guidelines for first-year course selection:
Students intending to complete a program in History should take two of the following courses in the first year: HISA04H3, HISA05H3, HISA06H3/GASA01H3, HISA07H3/CLAA04H3, HISA08H3/AFSA01H3.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

History Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry	Science - Chemistry

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/Specialist Co-op in Environmental Chemistry	
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
  - students must complete all of the HBA/ HBSc program and degree requirements;
  - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
  - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
  - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
  - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
  - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
  - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN HISTORY (ARTS)

Undergraduate Advisor: 416-287-7184 Email: history-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete at least 12.0 credits in History, including:

1. 1.0 credit from the following:
HISA04H3 Themes in World History I
HISA05H3 Themes in World History II
HISA06H3/GASA01H3 Introducing Global Asia and its Histories
HISA07H3/CLAA04H3 The Ancient Mediterranean World
HISA08H3/AFSA01H3 Africa in the World: An Introduction
HISA09H3 Capitalism: A Global History

2. 1.0 credit as follows:
HISB03H3 Critical Writing and Research for Historians
HISC01H3 History and Evidence

3. 4.5 credits at the C-level

4. 1.0 credit at the D-level

5. 2.0 credits must deal with the period prior to 1800

6. Students must take 1.0 credit in Canadian history and 4.0 credits distributed over four of the following areas of history:
a. United States and Latin America
b. Medieval
c. European
d. Africa and Asia
e. Transnational
f. Ancient World

Specialist Program in History--Language Stream
Students registered in the Specialist Program in History have the option of registering in the Language Stream. Students in the Language Stream must complete the Specialist Program in History and 2.0 credits in a single language. This option is designed to encourage Specialists to undertake language study with an eye to engaging historical writing and sources in the original language. Specialists who wish to demonstrate proficiency in a given language on their transcript should undertake the additional study that would qualify them for the UTSC Language Citation.

SPECIALIST (CO-OPERATIVE) PROGRAM IN HISTORY (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in History is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to History upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including 0.5 credits from: HISA04H3, HISA05H3, HISA06H3/GASA01H3, HISA07H3/CLAA04H3, HISA08H3/AFSA01H3 or HISA09H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet

admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in History.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in History and have completed at least 10.0 credits, including two of [HISA04H3, HISA05H3, HISA06H3/ GASA01H3, HISA07H3/CLAA04H3, HISA08H3/AFSA01H3 or HISA09H3] as well as HISB03H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN HISTORY (ARTS)

Undergraduate Advisor: 416-287-7184 Email: history-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete at least 7.0 credits in History, including:

1. 1.0 credit from the following:
HISA04H3 Themes in World History I
HISA05H3 Themes in World History II
HISA06H3/GASA01H3 Introducing Global Asia and its Histories
HISA07H3/CLAA04H3 The Ancient Mediterranean World
HISA08H3/AFSA01H3 Africa in the World: An Introduction
HISA09H3 Capitalism: A Global History

2. 0.5 credit as follows:
HISB03H3 Critical Writing and Research for Historians

3. 3.0 credits at the C- or D-level

4. 1.5 credits must deal with the period prior to 1800

5. 1.0 credit in Canadian history and at least 0.5 credit in two of the following areas of history:
a. United States and Latin America
b. Medieval
c. European
d. Africa and Asia
e. Transnational
f. Ancient World

MAJOR (CO-OPERATIVE) PROGRAM IN HISTORY (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in History is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to History upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including 0.5 credit from: HISA04H3, HISA05H3, HISA06H3/GASA01H3, HISA07H3/CLAA04H3, HISA08H3/AFSA01H3 or HISA09H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in History.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in History and have completed at least 10.0 credits, including two of [HISA04H3, HISA05H3, HISA06H3/ GASA01H3, HISA07H3/CLAA04H3, HISA08H3/AFSA01H3 or HISA09H3] as well as HISB03H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN HISTORY (ARTS)

Undergraduate Advisor: 416-287-7184 Email: history-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits in History, of which at least 1.0 credit must be at the C- and/or D-level.

History Courses

HISA04H3 - Themes in World History I

An introduction to history that focuses on a particular theme in world history, which will change from year to year. Themes may include migration; empires; cultural encounters; history and film; global cities.

Breadth Requirements: History, Philosophy & Cultural Studies

HISA05H3 - Themes in World History II

An introduction to history that focuses on a particular theme in world history, which will change from year to year. Themes may include migration; empires; cultural encounters; history and film; global cities.

Breadth Requirements: History, Philosophy & Cultural Studies

HISA06H3 - Introducing Global Asia and its Histories

This course introduces Global Asia Studies through studying historical and political perspectives on Asia. Students will learn how to critically analyze major historical texts and events to better understand important cultural, political, and social phenomena involving Asia and the world. They will engage in intensive reading and writing for humanities.
Same as GASA01H3

Africa and Asia Area

Exclusion: GASA01H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISA07H3 - The Ancient Mediterranean World

An introduction to the main features of the ancient civilizations of the Mediterranean world from the development of agriculture to the spread of Islam. Long term socio-economic and cultural continuities and ruptures will be underlined, while a certain attention will be dedicated to evidences and disciplinary issues.
Same as CLAA04H3
0.50 pre-1800 credit
Ancient World Area

Exclusion: CLAA04H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISA08H3 - Africa in the World: An Introduction

An interdisciplinary introduction to the history and development of Africa with Africa's place in the wider world a key theme. Students critically engage with African and diasporic histories, cultures, social structures, economies, and belief systems. Course material is drawn from Archaeology, History, Geography, Literature, Film Studies and Women's Studies.
Africa and Asia Area
Same as AFSA01H3

Exclusion: AFSA01H3, NEW150Y
Breadth Requirements: History, Philosophy & Cultural Studies

HISA09H3 - Capitalism: A Global History

This course explores the rise of capitalism – understood not simply as an economic system but as a political and cultural one as well – from roughly the 14th century to the present day. It aims to acquaint students with many of the more important socio-economic changes of the past seven hundred years and informing the way they think about some of the problems of the present time: globalization, growing disparities of wealth and poverty, and the continuing exploitation of the planet’s natural resources.

Exclusion: [HISA04H3 if taught in the Fall 2018 and Summer 2018 semesters]
Breadth Requirements: History, Philosophy & Cultural Studies

HISB02H3 - The British Empire: A Short History

The British Empire at one time controlled a quarter of the world's population. This course surveys the nature and scope of British imperialism from the sixteenth to the twentieth century, through its interactions with people and histories of Asia, Africa, the Americas, the Caribbean, the Pacific, and the British Isles.
Transnational Area

Breadth Requirements: History, Philosophy & Cultural Studies

HISB03H3 - Critical Writing and Research for Historians

Practical training in critical writing and research in History. Through lectures, discussion and workshops, students will learn writing skills (including essay organization, argumentation, documentation and bibliographic style), an introduction to methodologies in history and basic source finding techniques.

Exclusion: (HISB01H3)
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

HISB10H3 - History and Culture of the Greek World

A survey of the history and culture of the Greek world from the Minoan period to the Roman conquest of Egypt (ca 1500-30 BC). Special attention will be dedicated to the nature, variety and limits of the available evidences, to socio-cultural interactions as well as to historical processes of continuities and ruptures.
Same as CLAB05H3
0.50 pre-1800 credit
Ancient World Area

Exclusion: CLAB05H3, CLA230H
Breadth Requirements: History, Philosophy & Cultural Studies

HISB11H3 - History and Culture of the Roman World

A survey of the history and culture of the ancient Roman world, from the Etruscan period to the Justinian dynasty (ca 800 BC-600 AD). Special attention will be dedicated to the nature, variety and limits of the available evidences, to socio-cultural interactions as well as to historical processes of continuities and ruptures.
Same as CLAB06H3
0.5 pre-1800 credit
Ancient World Area

Exclusion: CLAB06H3, CLA231H
Breadth Requirements: History, Philosophy & Cultural Studies

HISB12H3 - The Classical World in Film

The representation of the classical world and historical events in film. How the Greek and Roman world is reconstructed by filmmakers, their use of spectacle, costume and furnishings, and the influence of archaeology on their portrayals. Films will be studied critically for historical accuracy and faithfulness to classical sources.
Same as CLAB20H3

Ancient World Area

Exclusion: CLAB20H3, CLA388H
Recommended Preparation: CLAA05H3 or CLAA06H3 or (CLAA02H3) or (CLAA03H3)
Breadth Requirements: History, Philosophy & Cultural Studies

HISB14H3 - Edible History: History of Global Foodways

An exploration of how eating traditions around the world have been affected by economic and social changes, including imperialism, migration, the rise of a global economy, and urbanization. Topics include: immigrant cuisines, commodity exchanges, and the rise of the restaurant. Lectures will be supplemented by cooking demonstrations.
Transnational Area

Exclusion: (HISC14H3)
Breadth Requirements: History, Philosophy & Cultural Studies

HISB23H3 - Latin America and the World

This class will examine Latin America's social and cultural history from the ancient Aztecs and Incas to the twentieth-century populist revolutions of Emiliano Zapata and Evita Perón. It will also focus on Latin America's connections to the wider world through trade, migration, and cuisine.

Exclusion: HIS290H, HIS291H, HIS292H
Enrolment Limits: 75
Breadth Requirements: History, Philosophy & Cultural Studies

HISB30H3 - American History to the Civil War

A survey of American history from contact between Indians and Europeans up through the Civil War. Topics include the emergence of colonial societies; the rise and destruction of racial slavery; revolution and republic-making; economic and social change in the new nation; western conquest; and the republic's collapse into internal war.
United States and Latin America Area

Exclusion: HIS271Y
Breadth Requirements: History, Philosophy & Cultural Studies

HISB31H3 - History of the United States since the Civil War

This course offers a survey of U.S. history from the post-Civil War period through the late 20th century, examining key episodes and issues such as settlement of the American West, industrialization, urbanization, immigration, popular culture, social movements, race relations, and foreign policy.
United States and Latin America Area

Exclusion: HIS271Y
Breadth Requirements: History, Philosophy & Cultural Studies

HISB37H3 - History of Mexico

This class will examine Mexico's social and cultural history from the ancient Aztecs through the Spanish Conquest to the twentieth-century revolutionary movements led by Pancho Villa and Emiliano Zapata. It will also focus on Mexico's connections to the wider world through trade, migration, and cuisine.

United States and Latin America Area

Breadth Requirements: History, Philosophy & Cultural Studies

HISB40H3 - Early Canada and the Atlantic World

The history of northern North America from the first contacts between Europeans and Aboriginal peoples to the late 19th century. Topics include the impact of early exploration and cultural encounters, empires, trans-Atlantic migrations, colonization and revolutions on the development of northern North America.
Canadian Area

Exclusion: (HIS262Y), HIS263Y
Breadth Requirements: History, Philosophy & Cultural Studies

HISB41H3 - Making of Modern Canada

Students will be introduced to historical processes central to the history of Canada's diverse peoples and the history of the modern age more generally, including the industrial revolution, women's entry in social and political "publics," protest movements, sexuality, and migration in the context of international links and connections.

Canadian Area

Enrolment Limits: 125
Breadth Requirements: History, Philosophy & Cultural Studies

HISB50H3 - Africa in the Era of the Slave Trade

An introduction to the history of Sub-Saharan Africa, from the era of the slave trade to the colonial conquests. Throughout, the capacity of Africans to overcome major problems will be stressed. Themes include slavery and the slave trade; pre-colonial states and societies; economic and labour systems; and religious change.
Africa and Asia Area
Same as AFSB50H3

Prerequisite: Any modern history course or AFSA01H3.
Exclusion: AFSB50H3, (HISC50H3), HIS295H, HIS396H, (HIS396Y)
Breadth Requirements: History, Philosophy & Cultural Studies

HISB51H3 - Africa from the Colonial Conquests to Independence

Modern Sub-Saharan Africa, from the colonial conquests to the end of the colonial era. The emphasis is on both structure and agency in a hostile world. Themes include conquest and resistance; colonial economies; peasants and labour; gender and ethnicity; religious and political movements; development and underdevelopment; Pan-Africanism, nationalism and independence.
Same as AFSB51H3

Africa and Asia Area

Exclusion: AFSB51H3, (HISC51H3), HIS396H, (HIS396Y)
Recommended Preparation: AFSA01H3/HISA08H3 or AFSB50H3 or HISB50H3 strongly recommended.
Breadth Requirements: History, Philosophy & Cultural Studies

HISB52H3 - African Religious Traditions Through History

An interdisciplinary introduction to African and African diasporic religions in historic context, including traditional African cosmologies, Judaism, Christianity, Islam, as well as millenarian and synchretic religious movements.
Same as AFSB01H3
Africa and Asia Area

Exclusion: AFSB01H3, (AFSA02H3)
Recommended Preparation: AFSA01H3/HISA08H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISB53H3 - Mughals and the World, 1500-1858 AD

Why does Southern Asia's pre-colonial history matter? Using materials that illustrate the connected worlds of Central Asia, South Asia and the Indian Ocean rim, we will query conventional histories of Asia in the time of European expansion.
Same as GASB53H3
0.5 pre-1800 credit
Africa & Asia Area

Exclusion: GASB53H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISB54H3 - Africa in the Postcolonial Era

Africa from the 1960s to the present. After independence, Africans experienced great optimism and then the disappointments of unmet expectations, development crises, conflict and AIDS. Yet the continent's strength is its youth. Topics include African socialism and capitalism; structural adjustment and resource economies; dictatorship and democratization; migration and urbanization; social movements.
Same as AFSB54H3

Asia and Africa Area

Prerequisite: AFSA01H3 or AFSB51H3 or 0.5 credit in Modern History
Exclusion: AFSB54H3, NEW250Y1
Breadth Requirements: History, Philosophy & Cultural Studies

HISB57H3 - Sub-Continental Histories: South Asia in the World

A survey of South Asian history. The course explores diverse and exciting elements of this long history, such as politics, religion, trade, literature, and the arts, keeping in mind South Asia's global and diasporic connections.
Africa and Asia Area
Same as GASB57H3

Exclusion: HIS282Y, HIS282H, GASB57H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISB58H3 - Modern Chinese History

This course provides an overview of the historical changes and continuities of the major cultural, economic, political, and social institutions and practices in modern Chinese history.
Same as GASB58H3
Africa and Asia Area

Prerequisite: Any 2.0 credits
Exclusion: HIS280Y, GASB58H3
Recommended Preparation: 0.5 credit at the A-level in HIS or GAS courses
Breadth Requirements: History, Philosophy & Cultural Studies

HISB60H3 - Europe in the Early Middle Ages (305-1053)

The development of Europe from the Late Roman period to the eleventh-century separation of the Roman and Byzantine Churches. The course includes the foundation and spread of Christianity, the settlement of "barbarians" and Vikings, the establishment of Frankish kingship, the Empire of Charlemagne, and feudalism and manorialism.
0.50 pre-1800 credit
Medieval Area

Exclusion: HIS220Y
Breadth Requirements: History, Philosophy & Cultural Studies

HISB61H3 - Europe in the High and Late Middle Ages (1053-1492)

An introduction to the social, political, religious and economic foundations of the Western world, including Church and State relations, the Crusades, pilgrimage, monasticism, universities and culture, rural exploitation, town development and trade, heresy, plague and war. Particular attention will be devoted to problems which continue to disrupt the modern world.
0.50 pre-1800 credit
Medieval Area

Exclusion: HIS220Y
Breadth Requirements: History, Philosophy & Cultural Studies

HISB62H3 - The Early Modern Mediterranean, 1500-1800

An exploration of the interplay of culture, religion, politics and commerce in the Mediterranean region from 1500 to 1800. Through travel narratives, autobiographical texts, and visual materials we will trace how men and women on the Mediterranean's European, Asian, and African shores experienced their changing world.
0.50 pre-1800 credit
Transnational Area.

Breadth Requirements: History, Philosophy & Cultural Studies

HISB63H3 - Muhammad to the Mongols: Islamic History 600-1300

This course explores the history of early and medieval Islamic societies, from the rise of Islam in the seventh century up to the Mongol invasions (c. 1300). The course will trace the trajectory of the major Islamic dynasties (i.e.: Umayyads, Abbasids, Seljuks, Fatimids, and Ayyubids) and also explore the cultural and literary developments in these societies. Geographically, the course spans North Africa, the Mediterranean, the Middle East, and Central Asia.

Pre-1800 course

Medieval Area

Exclusion: NMC273Y1, NMC274H1, NMC283Y1, HIS201H5, RLG204H5
Breadth Requirements: History, Philosophy & Cultural Studies

HISB64H3 - The Making of the Modern Middle East: Islamic History 1300-2000

This course explores the political and cultural history of early modern and modern Muslim societies including the Mongols, Timurids, Mamluks, and the Gunpowder empires (Ottomans, Safavids and Mughals). It concludes with the transformations in the Middle East in the nineteenth and twentieth centuries: European colonialism, modernization, and the rise of the nation-states.

Pre-1800 course
Medieval Area

Exclusion: NMC278H1
Breadth Requirements: History, Philosophy & Cultural Studies

HISB74H3 - Asian Foods and Global Cities

This course explores the social circulation of Asian-identified foods and beverages using research from geographers, anthropologists, sociologists, and historians to understand their changing roles in ethnic entrepreneur-dominated cityscapes of London, Toronto, Singapore, Hong Kong, and New York. Foods under study include biryani, curry, coffee, dumplings, hoppers, roti, and tea.
Same as GASB74H3

Africa and Asia Area

Breadth Requirements: Social & Behavioural Sciences

HISB93H3 - Modern Europe I: The Nineteenth Century

Europe from the French Revolution to the First World War. Major topics include revolution, industrialization, nationalism, imperialism, science, technology, art and literature.
European Area

Exclusion: HIS241H, (HISB90H3), (HISB92H3)
Breadth Requirements: History, Philosophy & Cultural Studies

HISB94H3 - Modern Europe II: The Twentieth Century

Europe from the First World War to the present day. War, political extremism, economic crisis, scientific and technological change, cultural modernism, the Holocaust, the Cold War, and the European Union are among the topics covered.
European Area

Exclusion: HIS242H, (HISB90), (HISB92)
Breadth Requirements: History, Philosophy & Cultural Studies

HISC01H3 - History and Evidence

An examination of the nature and uses of evidence in historical and related studies. Historians use a wide variety of sources as evidence for making meaningful statements about the past. This course explores what is meant by history and how historians evaluate sources and test their reliability as historical evidence.

Prerequisite: HISB03H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC02H3 - Marx and History

This is an intensive reading course that explores the Marxist historical tradition in critical perspective. It builds upon HISA09H3, and aims to help students acquire a theoretical and practical appreciation of the contributions, limitations, and ambiguities of Marxian approaches to history. Readings include classical philosophers and social critics, contemporary historians, and critics of Marxism.

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Recommended Preparation: HISA09H3
Enrolment Limits: 20
Breadth Requirements: History, Philosophy & Cultural Studies

HISC03H3 - History of Animals and People

An examination of the places of animals in global history. The course examines on-going interactions between humans and animals through hunting, zoos, breeding, and pets and the historical way the divide between humans and animals has been measured. Through animals, people have often thought about what it means to be human.
Same as (IEEC03H3)
Transnational Area

Prerequisite: Any 2.5 credits in History.
Exclusion: (HISD03H3), (IEEC03H3)
Breadth Requirements: History, Philosophy & Cultural Studies

HISC04H3 - Drink in History

This class seeks to recover a celebratory side of human experience that revolves around alcohol and stimulating beverages. Although most societies have valued psychoactive beverages, there has also been considerable ambivalence about the social consequences of excessive drinking. Students will examine drinking cultures through comparative historical study and ethnographic observation.

Transnational Area

Prerequisite: 2.5 credits in HIS courses
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

HISC05H3 - Feeding the City: Food Systems in Historical Perspective

This course puts urban food systems in world historical perspective using case studies from around the world and throughout time. Topics include provisioning, food preparation and sale, and cultures of consumption in courts, restaurants, street vendors, and domestic settings. Students will practice historical and geographical methodologies to map and interpret foodways.

Same as FSTC05H3

Transnational Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A or B-level in AFS, CLA, FST, GAS HIS or WST courses
Exclusion: FSTC05H3
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

HISC06H3 - Futures of the Past: Introduction to Digital History

In the oft- titled “Information age” how has historical practice changed? How will researchers analyze the current moment, which produces ever more, and ever-more fragile information? This third-year seminar explores the foundations of digital history by understanding the major shifts in historiography and historical research that have occurred through computing. Students taking this class will be prepared to take HISD18 and further extend their knowledge of digital methodologies.

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses

HISC08H3 - Colonialism on Film

An examination of the depiction of empires and the colonial and postcolonial experience on film. This course also introduces students to the development of national cinemas in Asia, Africa, the Caribbean and the South Pacific. The relationship between academic history and history as imagined by filmmakers is a key theme.
Transnational Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Exclusion: (HISB18H3)
Breadth Requirements: History, Philosophy & Cultural Studies

HISC09H3 - Pirates of the Caribbean

This course examines early modern globalization through that cosmopolitan actor, the pirate. Beginning in the Caribbean, we will explore networks of capitalism, migration, empire, and nascent nationalism. By studying global phenomena through marginalized participants—pirates, maroons, rebels, and criminals—we seek alternate narratives on the modern world’s origins.

Prerequisite: 1.0 credit in HIS courses
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

HISC10H3 - Environment, Society and Economy in Ptolemaic and Roman Egypt

This course provides a review of the environmental, social and economic features of Egypt from 332 BC to 642 AD.
Same as (IEEC52H3), CLAC05H3
0.50 pre-1800 credit
Ancient World Area

Prerequisite: 2.0 credits in CLA or HIS courses, including 2 of the following [CLAA04H3/HISA07H3, CLAB05H3/HISB10H3, CLAB06H3/HISB11H3]
Exclusion: (IEEC52H3), CLAC05H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC11H3 - Multiculturalism and Cultural Identities in the Greek and Roman Worlds

A critical examination of multiculturalism and cultural identities in the Greek and Roman worlds. Special attention will be dedicated to the evidences through which these issues are documented and to their fundamental influence on the formation and evolution of ancient Mediterranean societies and cultures.
Same as CLAC24H3
0.5 pre-1800 credit
Ancient World Area

Prerequisite: One full credit in Classics or History
Exclusion: CLAC24H3
Recommended Preparation: CLAB05H3 and CLAB06H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC18H3 - Europe in the Enlightenment, 1700-1789

An examination of the ideals of the Enlightenment against the background of social and political change in eighteenth-century Europe.
This course looks at Enlightenment thought and the ways in which European monarchs like Frederick the Great and Catherine the Great adapted it to serve their goals of state building.
0.50 pre-1800 credit
European Area

Prerequisite: 1.0 credit at B-level in European history
Exclusion: HIS244H, HIS341Y
Breadth Requirements: History, Philosophy & Cultural Studies

HISC26H3 - The French Revolution and the Napoleonic Empire

The course will present the causes, processes, principles, and effects of the French Revolution. It will additionally present the relationship between the French Revolution and the Haitian Revolution, and look at the rise of Napoleon Bonaparte.

0.5 pre-1800 credit

European Area

Exclusion: HIS457H
Breadth Requirements: History, Philosophy & Cultural Studies

HISC27H3 - The History of European Sexuality: From Antiquity to the Present

The course will cover major developments in sexuality in Europe since antiquity. It will focus on the manner in which social, political, and economic forces influenced the development of sexuality. It will also analyze how religious beliefs, philosophical ideas, and scientific understanding influenced the ways that sexuality was understood.

European Area

Enrolment Limits: 60
Breadth Requirements: History, Philosophy & Cultural Studies

HISC29H3 - Global Commodities: Nature, Culture, History

This course explores familiar commodities in terms of natural origins, everyday cultures of use, and global significance. It analyses environmental conditions, socio-economic transactions, political, religious, and cultural contexts around their production, distribution, and consumption. Commodity case studies will be selected among tea, opium, chocolate, rice, bananas, cotton, rubber, coffee, and sugar.
Transnational Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Recommended Preparation: HISB03H3
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in the Specialist and Major programs in History

HISC30H3 - The U.S. and the World

Collectively, immigrants, businesspeople, investors, missionaries, writers and musicians may have been as important as diplomats' geopolitical strategies in creating networks of connection and exchange between the United States and the world. This course focuses on the changing importance and interactions over time of key groups of state and non-state actors.

United States and Latin America Area

Prerequisite: 1.0 credit at the A-level in AFS, GAS or HIS courses
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

HISC32H3 - The Emergence of Modern America, 1877-1933

Overview of the political and social developments that produced the modern United States in the half-century after 1877. Topics include urbanization, immigration, industrialization, the rise of big business and of mass culture, imperialism, the evolution of the American colour line, and how Americans used politics to grapple with these changes.
United States and Latin America Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Recommended Preparation: HISB30H3 and HISB31H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC33H3 - Modern American Political Culture

An examination of the relationship between culture and politics in modern American history. The course considers culture as a means through which Americans expressed political desires. Politics, similarly, can be understood as a forum for cultural expression. Topics include imperialism, immigration and migration, the Cold War, and the "culture wars".
United States and Latin America Area

Prerequisite: [HISB30H3 and HISB31H3]
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

HISC34H3 - Race, Segregation, Protest: South Africa and the United States

This transnational history course explores the origins, consolidation, and unmaking of segregationist social orders in the American South and South Africa. It examines the origins of racial inequality, the structural and socio-political roots of segregation, the workings of racial practices and ideologies, and the various strategies of both accommodation and resistance employed by black South Africans and African Americans from the colonial era up to the late twentieth century.

Transnational Area

Prerequisite: AFSB51H3 or HISB31H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC36H3 - People in Motion: Immigrants and Migrants in U.S. History

Overview of the waves of immigration and internal migration that have shaped America from the colonial period to the present. Topics include colonization and westward migration, immigrants in the industrial and contemporary eras, nativism, stances towards pluralism and assimilation, and how migration experiences have varied by race, class, and gender.
United States and Latin America Area

Prerequisite: [Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses] or [any 8.0 credits, including SOCB60H3]
Recommended Preparation: HISB30H3 and HISB31H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC37H3 - Eating and Drinking Across the Americas

Students in this course will examine the development of regional cuisines in North and South America. Topics will include indigenous foodways, the role of commodity production and alcohol trade in the rise of colonialism, the formation of national cuisines, industrialization, migration, and contemporary globalization. Tutorials will be conducted in the Culinaria Kitchen Laboratory.

Same as FSTC37H3

United States and Latin America Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses
Exclusion: FSTC37H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC38H3 - Mexico Through American Eyes

This course focuses on the period of the Mexican revolution, 1910 through 1940, and will explore the influence of this political and social upheaval on changing cultural relations between the peoples of the United States and Mexico as seen through the work of foreign travellers, journalists, writers, filmmakers and photographers.
United States and Latin America Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Recommended Preparation: HISB30H3 and HISB31H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

HISC39H3 - Hellhound on My Trail: Living the Blues in the Mississippi Delta, 1890-1945

This course examines black life and culture in the cotton South through the medium of the blues. Major topics include: land tenure patterns in southern agriculture, internal and external migration, mechanisms of state and private labour control, gender conventions in the black community, patterns of segregation and changing race relations.

United States and Latin America Area

Exclusion: HIS478H
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

HISC45H3 - Immigrants and Race Relations in Canadian History

An examination of aspects of the history of immigrants and race relations in Canada, particularly for the period 1840s 1960s.
The course covers various immigrant and racialized groups and explores how class, gender and race/ethnicity shaped experiences and racial/ethnic relations.
Canadian Area

Prerequisite: Any 4.0 credits
Exclusion: HIS312H
Breadth Requirements: History, Philosophy & Cultural Studies

HISC46H3 - Canada and the World

A look at Canada's evolution in relation to developments on the world stage. Topics include Canada's role in the British Empire and its relationship with the U.S., international struggles for women's rights, Aboriginal peoples' sovereignty and LGBT equality, socialism and communism, the World Wars, decolonization, the Cold War, humanitarianism, and terrorism.
Canadian Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Exclusion: HIS311H, HIS311Y
Recommended Preparation: HISB40H3 or HISB41H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC51H3 - From Opium to Maximum City: Narrating Political Economy in China and India

This course addresses literary, historical, ethnographic, and filmic representations of the political economy of China and the Indian subcontinent from the early 19th century to the present day. We will look at such topics as the role and imagination of the colonial-era opium trade that bound together India, China and Britain in the 19th century, anticolonial conceptions of the Indian and Chinese economies, representations of national physical health, as well as critiques of mass-consumption and capitalism in the era of the 'liberalization' and India and China's rise as major world economies. Students will acquire a grounding in these subjects from a range of interdisciplinary perspectives.

Same as GASC51H3

Asia and Africa Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A-level and 0.5 credit at the B-level in HIS, GAS or other Humanities and Social Sciences courses
Exclusion: GASC51H3
Recommended Preparation: GASA01H3/HISA06H3 or GASA02H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC52H3 - Ethiopia: Seeing History

This course uses a focus on material history and visual culture to explore Ethiopia from the fourth through the nineteenth century, with particular emphasis on the Christian Church, the monarchy, links with both the Mediterranean world and the Indian subcontinent, and the relationship of individuals to their social, economic, artistic and geographic environments.
Same as AFSC52H3 and VPHC52H3
0.50 pre-1800 credit
Africa and Asia Area

Prerequisite: [1.0 credit in History] or [VPHA46H3 and ACMB01H3 and an additional 1.0 credit in VPH courses]
Exclusion: AFSC52H3, VPHC52H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC54H3 - Eating and Drinking Across Global Asia

Students examine historical themes for local and regional cuisines across Global Asia, including but not limited to Anglo-Indian, Arab, Bengali, Chinese, Himalayan, Goan, Punjabi, Japanese, Persian, Tamil, and Indo-Caribbean. Themes include religious rituals, indigenous foodways; colonialism, industrialization, labour, gender, class, migration, globalization, and media. Tutorials are in the Culinaria Kitchen Lab.

Same as FSTC54H3 and GASC54H3

Africa and Asia Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level from AFS, CLA, FST, GAS, HIS or WST courses
Exclusion: FSTC54H3, GASC54H3
Breadth Requirements: Social & Behavioural Sciences

HISC55H3 - War and Society in Modern Africa

Conflict and social change in Africa from the slave trade to contemporary times. Topics include the politics of resistance, women and war, repressive and weak states, the Cold War, guerrilla movements, resource predation. Case studies of anticolonial rebellions, liberation wars, and civil conflicts will be chosen from various regions.
Same as AFSC55H3
Africa and Asia Area

Prerequisite: Any 4.0 credits, including: AFSB50H3/HISB50H3 or AFSB51H3/HISB51H3 or (HISC50H3) or (HISC51H3)
Exclusion: AFSC55H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC56H3 - Comparative Studies of East Asian Legal Cultures

An introduction to the distinctive East Asian legal tradition shared by China, Japan, and Korea through readings about selected thematic issues. Students will learn to appreciate critically the cultural, political, social, and economic causes and effects of East Asian legal cultures and practices.
Same as GASC50H3
Africa and Asia Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in GAS or HIS courses
Exclusion: GASC50H3
Recommended Preparation: GASB58H3/HISB58H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

HISC57H3 - China and the World

A study of the history of China's relationship with the rest of the world in the modern era. The readings focus on China's role in the global economy, politics, religious movements, transnational diasporas, scientific/technological exchanges, and cultural encounters and conflicts in the ages of empire and globalization.
Same as GASC57H3
Africa and Asia Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in GAS or HIS courses
Exclusion: GASC57H3
Recommended Preparation: GASB58H3/HISB58H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

HISC58H3 - Delhi and London: Imperial Cities, Mobile People

Delhi and London were two major cities of the British Empire. This course studies their parallel destinies, from the imperial into the post-colonial world. It explores how diverse cultural, ecological, and migratory flows connected and shaped these cities, using a wide range of literary, historical, music, and film sources.
Transnational Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level from AFS, CLA, FST, GAS, HIS or WST courses
Recommended Preparation: HISB02H3 or HISB03H3 or GASB57H3/HISB57H3 or GASB74H3/HISB74H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC59H3 - The Making of Tamil Worlds

This course explores the transnational history of Tamil worlds. In addition to exploring modern Tamil identities, the course will cover themes such as mass migration, ecology, social and economic life, and literary history.
Same as GASC59H3
Africa and Asia Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in GAS or HIS courses
Exclusion: GASC59H3, (HISB54H3), (GASB54H3)
Recommended Preparation: GASB57H3/HISB57H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC60H3 - Old Worlds? Strangers and Foreigners in the Mediterranean, 1200-1700

An exploration of how medieval and early modern societies encountered foreigners and accounted for foreignness, as well as for religious, linguistic, and cultural difference more broadly. Topics include: monsters, relics, pilgrimage, the rise of the university, merchant companies, mercenaries, piracy, captivity and slavery, tourism, and the birth of resident embassies.
Same as (IEEC51H3)
0.50 pre-1800 credit
Transnational Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses
Exclusion: (IEEC51H3)
Recommended Preparation: HISB62H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC65H3 - Venice and its Empire, 800-1800

Social and cultural history of the Venetian Empire from a fishermen's colony to the Napoleonic Occupation of 1797. Topics include the relationships between commerce and colonization in the Mediterranean, state building and piracy, aristocracy and slavery, civic ritual and spirituality, guilds and confraternities, households and families.
0.50 pre-1800 credit
European Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses
Recommended Preparation: HISB62H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC66H3 - Histories of Gender and Sexuality in Muslim Societies: Between Law, Ethics and Culture

This course tracks the evolving histories of gender and sexuality in diverse Muslim societies. We will examine how gendered norms and sexual mores were negotiated through law, ethics, and custom. We will compare and contrast these themes in diverse societies, from the Prophet Muhammad's community in 7th century Arabia to North American and West African Muslim communities in the 21st century.

Same as WSTC66H3

Transnational Area

Prerequisite: [Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses] or [1.5 credits in WST courses, including 0.5 credit at the B- or C-level]
Exclusion: WSTC66H3, RLG312H1
Breadth Requirements: History, Philosophy & Cultural Studies

HISC67H3 - Early Islam: Perspectives on the Construction of a Historical Tradition

This course examines the history and historiography of the formative period of Islam and the life and legacy of Muḥammad, Islam's founder. Central themes explored include the Late Antique context of the Middle East, pre-Islamic Arabia and its religions, the Qur'ān and its textual history, the construction of biographical accounts of Muḥammad, debates about the historicity of reports from Muḥammad, and the evolving identity and historical conception of the early Muslim community.

Same as CLAC67H3
Pre-1800 course
Ancient World Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Exclusion: CLAC67H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC68H3 - Constructing the Other: Orientalism through Time and Place

This course reflects on the concept of *Orientalism* and how it informs the fields of Classical Studies and Anthropology. Topics to be discussed include the Orientalization of the past and the origin, role, and significance of ancient representations of the "Other" in contemporary discourses.
Same as ANTC58H3 and CLAC68H3

Prerequisite: 1.0 credit from the following: [CLAA04H3/HISA07H3, CLAB05H3/HISB10H3, CLAB06H3/HISB11H3, ANTA02H3, ANTB19H3, ANTB20H3, HISB02H3, AFSB50H3/HISB50H3, AFSB51H3/HISB51H3, HISB53H3, HISB57H3, HISB58H3, HISB60H3, HISB61H3, HISB62H3, HISB93H3, HISB94H3]
Exclusion: ANTC58H3, CLAC68H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

HISC70H3 - The Caribbean Diaspora

The migration of Caribbean peoples to the United States, Canada, and Europe from the late 19th century to the present. The course considers how shifting economic circumstances and labour demands, the World Wars, evolving imperial relationships, pan-Africanism and international unionism, decolonization, natural disasters, and globalization shaped this migration.
Same as AFSC70H3
Transnational Area

Prerequisite: Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses
Exclusion: NEW428H, AFSC70H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISC75H3 - Migration in Global History

A survey of human mobility from the era when humans first populated the earth to the global migrations of our own time. An introduction to the main categories of human movement and to historical and modern arguments for fostering or restricting migration.

Transnational Area

Prerequisite: Any 4.0 credits
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

HISC96H3 - Language and Society in the Arab World

An examination of the relationship between language, society and identity in North Africa and the Arabic-speaking Middle East from the dawn of Islam to the contemporary period. Topics include processes of Arabization and Islamization, the role of Arabic in pan-Arab identity; language conflict in the colonial and postcolonial periods; ideologies of gender and language among others.
Same as AFSC30H3

Asia and Africa Area

Prerequisite: Any B-level course in African Studies, Linguistics, History, or Women's and Gender Studies
Exclusion: AFSC30H3
Enrolment Limits: 50
Breadth Requirements: Arts, Literature & Language

HISC97H3 - Women and Power in Africa

This course examines women in Sub-Saharan Africa in the pre-colonial, colonial and postcolonial periods. It covers a range of topics including slavery, colonialism, prostitution, nationalism and anti-colonial resistance, citizenship, processes of production and reproduction, market and household relations, and development.
Same as AFSC97H3

Asia and Africa Area

Prerequisite: Any 4.0 credits, including: HISA08H3/AFSA01H3 or HISB50H3/AFSB50H3 or HISB51H3/AFSB51H3
Exclusion: AFSC97H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISD01H3 - Independent Studies: Senior Research Project

This option is available in rare and exceptional circumstances to students who have demonstrated a high level of academic maturity and competence. Qualified students will have the opportunity to investigate a historical field which is of common interest to both student and supervisor. Only standing faculty may serve as supervisors, please see the HCS website for a list of eligible faculty.

Prerequisite: At least 15.0 credits and completion of the requirements for the Major Program in History; written permission must be obtained from the instructor in the previous session.
Exclusion: (HIS497Y), HIS498H, HIS499H, HIS499Y

HISD02H3 - Independent Studies: Senior Research Project

This option is available in rare and exceptional circumstances to students who have demonstrated a high level of academic maturity and competence. Qualified students will have the opportunity to investigate an historical field which is of common interest to both student and supervisor. Only standing faculty may serve as supervisors, please see the HCS website for a list of eligible faculty.

Prerequisite: At least 15.0 credits and completion of the requirements for the Major program in History; written permission must be obtained from the instructor in the previous session.
Exclusion: (HIS497Y), HIS498H, HIS499H, HIS499Y

HISD04H3 - Missionaries and Converts in the Early Modern World

A seminar exploring how early modern people thought about and practiced community, belief, and ritual. We will relate conversion to processes of empire building, and examine whether the "globalization of Christianity" is a useful concept through which to understand the experiences of missionaries and converts from 1500 to 1800.
0.50 pre-1800 credit
Transnational Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS, GAS or CLA courses]
Recommended Preparation: HISB50H3 or HISB53H3 or HISB60H3 or HISB61H3 or HISB62H3 or HISC60H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD05H3 - Between Two Worlds? Translators and Interpreters in History

A seminar exploring the social history of translators, interpreters, and the texts they produce. Through several case studies from Ireland and Istanbul to Québec, Mexico City, and Goa, we will ask how translators shaped public understandings of "self" and "other," "civilization" and "barbarity" in the wake of European colonization.
Transnational Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS, GAS or CLA courses]
Recommended Preparation: HISB62H3 or HISC18H3 or HISC60H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD06H3 - Global History of Crime and Punishment since 1750

An exploration of the global problem of crime and punishment. The course investigates how the global processes of colonialism, industrialization, capitalism and liberalization affected modern criminal justice and thus the state-society relationship and modern citizenry in different cultures across time and space.
Same as GASD06H3
Transnational Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: GASD06H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD07H3 - Themes in the History of Childhood and Culture

A comparative analysis of transnationational histories, and cultural and gendered ideologies of children and childhood through case studies of foundlings in Italy, factory children in England, orphans and adoption in the American West, labouring children in Canada and Australia, and mixed-race children in British India.
Same as WSTD07H3

Transnational Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS or WST courses] and [0.5 credit at the C-level in HIS or WST courses]
Exclusion: WSTD07H3
Recommended Preparation: HISB02H3 or HISB03H3 or WSTB06H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD08H3 - Borderlands and Beyond: Thinking about a North American History

An examination of approaches to historical analysis that take us beyond the national narrative beginning with the study of borderlands between the United States and Mexico, comparing that approach with the study of Canada/United States borderlands and finishing with themes of a North American continental or transnational nature.
United States and Latin America Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: [HISB30H3 and HISB31H3] or [HISB40H3 and HISB41H3]
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD09H3 - Senior Seminar: Topics in Global Asian Migrations

This course offers an in-depth and historicized study of important issues in historical and contemporary Asian, diasporic, and borderland societies such as migration, mobility, and circulation. It is conducted in seminar format with emphasis on discussion, critical reading and writing, digital skills, and primary research.

Same as GASD01H3

Asia and Africa Area

Prerequisite: Any 8.0 credits, including [0.5 at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses] and [0.5 credit at the C-level in AFS, CLA, FST, GAS, HIS or WST courses]
Exclusion: GASD01H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Topics vary from year to year. Check the website: www.utsc.utoronto.ca/~hcs/programs/global-asia-studies.html for current offerings.

HISD10H3 - Water Management in the Ancient Mediterranean World

This seminar type course addresses issues related to the relationships between ancient Mediterranean societies and their hydric environments in the Mediterranean from 5000 BC to 600 AD.
Same as CLAD05H3
0.50 pre-1800 credit
Ancient World Area

Prerequisite: Any 11 full credits including 2 full credits in Classical Studies or History
Exclusion: CLAD05H3
Recommended Preparation: CLAB05H3 and CLAB06H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD12H3 - Making it Strange: Modernisms in European Art and Ideas, 1900-1945

The course will focus on major developments in art and ideas in early twentieth century Europe. We will study experimental forms of art and philosophy that fall under the broad category of Modernism, including painting, music, literature, and film, as well as philosophical essays, theoretical manifestos, and creative scholarly works.

European Area

Prerequisite: 0.5 credit at the C-level in a European History course
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD14H3 - Selected Topics in Modern European History

This is a seminar-style course organized around a selected topic in Modern European History.

European Area

Prerequisite: 7.5 credits in HIS courses, including [(HISB90H3) or (HISB91H3) or (HISB92H3) or HISB93H3]
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD16H3 - Socialist Feminism in Global Context

A comparative exploration of socialist feminism, encompassing its diverse histories in different locations, particularly China, Russia, Germany and Canada. Primary documents, including literary texts, magazines, political pamphlets and group manifestos that constitute socialist feminist ideas, practices and imaginaries in different times and places will be central. We will also seek to understand socialist feminism and its legacies in relation to other contemporary stands of feminism.
Same as WSTD16H3
Transnational Area

Prerequisite: 1.0 credit at the B-level and 1.0 credit at the C-level in HIS, WST, or other Humanities and Social Sciences courses
Exclusion: WSTD16H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD18H3 - Digital History

This seminar/lab introduces students to the exploding field of digital history. Through a combination of readings and hands-on digital projects, students explore how the Web radically transforms how both professional historians and others envision the past and express these visions in various media. Technical background welcome but not required.

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: HISB03H3 or HISC01H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in the Specialist and Major programs in History. Additional students will be admitted as space permits.

HISD25H3 - Oral History and Urban Change

An applied research methods course that introduces students to the methods and practice of Oral history, the history of Scarborough, the field of public history and community-based research. A critical part of the class will be to engage in fieldwork related to designing and conducting oral history interviews.
Canadian Area

Prerequisite: Any 8.0 credits, including [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Exclusion: WSTC02H3 (if taken in Fall 2013), CITC10H3 (if taken in Fall 2013), (HISC28H3), WSTD10H3, HISD44H3 (if taken in Fall 2013)
Enrolment Limits: 20
Breadth Requirements: History, Philosophy & Cultural Studies

HISD30H3 - Gendering America

The history of gender in the United States from the era of exploration to the present day. The changing social roles of men and women and the evolving constructions of femininity and masculinity. Particular topics include: work, family, sexuality, and state policy.
United States and Latin America Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: HISB30H3 and HISB31H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD31H3 - Thinking of Diversity: Perspectives on American Pluralisms

A seminar exploring the evolution of American thinking about diversity -- ethnic, religious, and regional -- from colonial-era defenses of religious toleration to today's multiculturalism. Participants will consider pluralist thought in relation to competing ideologies, such as nativism, and compare American pluralisms to formulations arrived at elsewhere, including Canada.
Transnational Area

Prerequisite: [Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]] or [10.0 credits including SOCB60H3]
Recommended Preparation: HISB30H3 and HISB31H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD32H3 - Slavery and Emancipation in the American South

This course explores the origins, growth, and demise of slavery in the United States. It focuses on slavery as an economic, social, and political system that shaped and defined early America. There will be an emphasis on developing historical interpretations from primary sources.

United States and Latin America Area

Prerequisite: Any 8.0 credits, including [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: HISB30H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD34H3 - Topics in American Social and Cultural History

This fourth-year seminar is funded by the Canada Research Chair in Urban History and is taught by an advanced graduate student in American history. The course, with topics varying from year to year will focus on major themes in American social and cultural history, such as, women's history, labour history, and/or the history of slavery and emancipation.
United States and Latin America Area

Prerequisite: HISB30H3 and HISB31H3
Enrolment Limits: 15
Note: Topics vary from year to year. Check the website www.utsc.utoronto.ca/~hcs/programs/history.html for current offerings.

HISD35H3 - The Politics of American Immigration, 1865-present

A seminar that puts contemporary U.S. debates over immigration in historical context, tracing the roots of such longstanding controversies as those over immigration restriction, naturalization and citizenship, immigrant political activism, bilingual education and "English-only" movements, and assimilation and multiculturalism. Extensive reading and student presentations are required.
United States and Latin America Area

Prerequisite: [Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]] or [10.0 credits including SOCB60H3]
Recommended Preparation: HISB30H3 and HISB31H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD36H3 - From New Deal to New Right: American Politics since 1933

The most striking development in U.S. politics in the last half century has been the rebirth and rise to dominance of conservatism. This seminar examines the roots of today's conservative ascendancy, tracing the rise and fall of New Deal liberalism and the subsequent rise of the New Right.
United States and Latin America Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: HISB30H3 and HISB31H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD44H3 - Nearby History: The Method and Practice of Local History

This course introduces students to the methods and practice of the study of local history, in this case the history of Scarborough. This is a service learning course that will require a commitment to working and studying in the classroom and the community as we explore forms of public history.
Canadian Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD45H3 - Canadian Settler Colonialism in Comparative Context

A seminar on Canadian settler colonialism in the 19th and 20th centuries that draws comparisons from the United States and elsewhere in the British Empire. Students will discuss colonialism and the state, struggles over land and labour, the role of race, gender, and geography in ideologies and practices of colonial rule, residential schools, reconciliation and decolonization.

Canadian Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: HISB40H3 or HISB41H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD46H3 - Selected Topics in Canadian Women's History

Weekly discussions of assigned readings. The course covers a broad chronological sweep but also highlights certain themes, including race and gender relations, working women and family economies, sexuality, and women and the courts. We will also explore topics in gender history, including masculinity studies and gay history.
Same as WSTD46H3
Transnational Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses] and [0.5 credit at the C-level in AFS, CLA, FST, GAS, HIS or WST courses]
Exclusion: WSTD46H3
Recommended Preparation: HISB02H3 or HISB03H3 or HISB14H3 or WSTB06H3 or HISB50H3 or GASB57H3/HISB57H3 or HISC09H3 or HISC29H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Topics vary from year to year. Check the website www.utsc.utoronto.ca/~hcs/programs/history.html for current offerings.

HISD47H3 - Cold War Canada in Comparative Contexts

A seminar on Cold War Canada that focuses on the early post-war era and examines Canadian events, developments, experience within a comparative North American context. Weekly readings are organized around a particular theme or themes, including the national insecurity state; reds, spies, and civil liberties; suburbia; and sexuality.
Canadian Area

Prerequisite: HISB41H3 and at least one other B- or C-level credit in History
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD48H3 - The World Through Canadian Eyes

How have Canadians historically experienced, and written about, the world? In what ways have nationalism, imperialism, and ideas about gender and race given meaning to Canadian understandings of the world? Students will consider these questions by exploring the work of Canadian travel writers, missionaries, educators, diplomats, trade officials, and intellectuals.
Canadian Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: HISB40H3 or HISB41H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD50H3 - Southern Africa: Conquest and Resistance, 1652-1900

A seminar study of the history of the peoples of southern Africa, beginning with the hunter-gatherers but concentrating on farming and industrializing societies. Students will consider pre-colonial civilizations, colonialism and white settlement, violence, slavery, the frontier, and the mineral revolution. Extensive reading and student presentations are required.
Africa and Asia Area

Prerequisite: Any 8.0 credits, including: AFSB50H3/HISB50H3 or AFSB51H3/HISB51H3 or AFSC55H3/HISC55H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD51H3 - Southern Africa: Colonial Rule, Apartheid and Liberation

A seminar study of southern African history from 1900 to the present. Students will consider industrialization in South Africa, segregation, apartheid, colonial rule, liberation movements, and the impact of the Cold War. Historiography and questions of race, class and gender will be important. Extensive reading and student presentations are required.
Same as AFSD51H3
Africa and Asia Area

Prerequisite: 8.0 credits including AFSB51H3/HISB51H3 or HISD50H3
Exclusion: AFSD51H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD52H3 - East African Societies in Transition

A seminar study of East African peoples from late pre-colonial times to the 1990's, emphasizing their rapid although uneven adaptation to integration of the region into the wider world. Transitions associated with migrations, commercialization, religious change, colonial conquest, nationalism, economic development and conflict, will be investigated. Student presentations are required.
Same as AFSD52H3
Africa and Asia Area

Prerequisite: 8.0 credits including AFSB50H3/HISB50H3 or AFSB51H3/HISB51H3 or HISC55H3
Exclusion: AFSD52H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD53H3 - Africa and Asia in the First World War

This seminar course examines the First World War in its imperial and colonial context in Africa and Asia. Topics include forgotten fronts in Africa, the Middle East, Asia and the Pacific, colonial armies and civilians, imperial economies and resources, the collapse of empires and the remaking of the colonial world.

Same as AFSD53H3 and GASD53H3

Africa and Asia Area

Prerequisite: 8.0 credits, including: 1.0 credit in AFS, GAS, or Africa and Asia area HIS courses
Exclusion: AFSD53H3, GASD53H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD54H3 - Aqueous History: Water-stories for a Future

This upper-level seminar will explore how water has shaped human experience. It will explore water landscapes, the representation of water in legal and political thought, slave narratives, and water management in urban development from the 16th century. Using case studies from South Asia and North America we will understand how affective, political and social relations to water bodies are made and remade over time.

Same as GASD54H3

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: GASD54H3

HISD56H3 - 'Coolies' and Others: Asian Labouring Diasporas in the British Empire

Coolie' labourers formed an imperial diaspora linking South Asia and China to the Caribbean, Africa, the Indian Ocean, South-east Asia, and North America. The long-lasting results of this history are evident in the cultural and ethnic diversity of today's Caribbean nations and Commonwealth countries such as Great Britain and Canada.
Africa and Asia Area
Same as GASD56H3

Prerequisite: [8.0 credits, at least 2.0 credits should be at the B-or C-level in GAS or Modern History courses] or [15.0 credits, including SOCB60H3]
Exclusion: GASD56H3
Breadth Requirements: History, Philosophy & Cultural Studies

HISD58H3 - Culture, Politics, and Society in Late Imperial China

A study of major cultural trends, political practices, social customs, and economic developments in late imperial China (1400-1911) as well as their relevance to modern and contemporary China. Students will read the most recent literature and write a substantive research paper.
Same as GASD58H3

0.5 pre-1800 credit
Africa and Asia area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: GASD58H3
Recommended Preparation: GASB58H3/HISB58H3 or GASC57H3/HISC57H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD59H3 - Law and Society in Chinese History

A seminar course on Chinese legal tradition and its role in shaping social, political, economic, and cultural developments, especially in late imperial and modern China. Topics include the foundations of legal culture, regulations on sexuality, women's property rights, crime fictions, private/state violence, laws of ethnicities, prison reforms and modernization.
Same as GASD59H3
0.5 pre-1800 credit

Africa and Asia Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in GAS or HIS courses] and [0.5 credit at the C-level in GAS or HIS courses]
Exclusion: GASD59H3
Recommended Preparation: GASB58H3/HISB58H3 or GASC57H3/HISC57H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD60H3 - Travel and Travel-Writing from the Middle Ages to the Early Modern Period

The development of travel and travel narratives before 1800, and their relationship to trade and colonization in the Mediterranean and beyond. Topics include: Marco Polo, pilgrimage and crusading, the history of geography and ethnography. Extensive reading, oral presentations, and a final paper based on research in primary documents are required.
0.50 pre-1800 credit
Transnational Area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Recommended Preparation: HISB50H3 or HISB53H3 or HISB60H3 or HISB61H3 or HISB62H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD63H3 - The Crusades: I

Modern interpretations of the Crusades will be investigated in the broad context of Western expansion into the Middle East (1099-1204), Spain and southern Europe, and, North-Eastern Europe. Also considered will be the Christian Military Orders, the Mongols and political crusades within Europe itself.
0.50 pre-1800 credit
Medieval Area

Prerequisite: HISB60H3 and HISB61H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD64H3 - The Crusades: II

An intensive study of the primary sources of the First through Fourth Crusades, including works by Eastern and Western Christian, Arab and Jewish authors. The crusading period will be considered in terms of Western Christian expansion into the Middle East, Spain and Northern Europe in the 11th through 13th centuries.
0.50 pre-1800 credit
Medieval Area

Prerequisite: HISB60H3 and HISB61H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD65H3 - The Good in Islam: Ethics in Islamic Thought

What is good and evil? Are they known by human reason or revelation? How is happiness achieved? How is the human self-cultivated? This course will explore the diverse approaches that Muslim thinkers took to answering these perennial questions. Beginning with early Islam (the Qur'an and Prophet Muhammad), we will examine ethical thought in various intellectual traditions (e.g.: Islamic law, philosophy, mysticism, literature). Finally, we will analyze contemporary ethical dilemmas (e.g.; Muslim political, sexual, and environmental ethics).

Transnational area

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS courses] and [0.5 credit at the C-level in HIS courses]
Breadth Requirements: History, Philosophy & Cultural Studies

HISD70H3 - History of Empire and Foods

A transnational history of how the rise of modern, global empires reshaped how the world produced and consumed food. This course, through cooking practicums, offers a hands-on approach to imperial and culinary histories with emphasis on plantation economies, famine, the tropical commodity trade, and the rise of national cuisines.
Transnational Area

Prerequisite: 8.0 credits, including [(HISC14H3) or HISB14H3]
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in HIS programs. Additional students will be admitted as space permits.

HISD71H3 - Community Engaged Fieldwork With Food

This research seminar uses our immediate community of Scarborough to explore continuity and change within diasporic foodways. Students will develop and practise ethnographic and other qualitative research skills to better understand the many intersections of food, culture, and community. This course culminates with a major project based on original research.

Same as ANTD71H3

Prerequisite: HISB14H3/(HISC14H3) or HISC04H3 or [2.0 credits in ANT courses of which 1.0 credit must be at the C-level] or permission of the instructor
Exclusion: ANTD71H3
Recommended Preparation: ANTB64H3, ANTC70H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD72H3 - History of Beer and Brewing

This research seminar examines the history of beer, including production techniques, gender roles, and drinking cultures, from ancient times to contemporary microbrewing. Students will produce a major paper or digital project on a chosen case study. Class will include a practicum on historical technologies of malting, mashing, and fermenting.

Transnational Area

Prerequisite: Any 8.0 credits in AFS, CLA, GAS, HCS, HIS, RLG, and/or WST courses
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD73H3 - Engendering Canadian Food History

This course explores Canada's diverse food cultures and the varied relationships that Canadians have had historically with food practices in the context of family, community, region, and nation and with reference to transnational connections and identities. It examines Canada's foodways - the practices and traditions associated with food and food preparation - through the gendered lens of Indigenous-colonial relations, migration and diaspora, family, politics, nutrition, and popular culture. The course is organized around two central principles. One is that just as Canada's rich past resists any singular narrative, there is no such thing as a singular Canadian food tradition. The other is that a focus on questions related to women and gender further illuminate the complex relationship between food and cultural politics, variously defined. The course covers a broad time-span, from early contact between European settlers and First Nations through the end of the twentieth century.

Canadian Area

Prerequisite: 4.0 credits in HIS, WST or FST courses
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

HISD95H3 - Presenting the Past

This course introduces students to creative ways of telling/conveying stories about historical moments, events, figures and the social context in which these have occurred. The course will enable students to narrate the past in ways, from film to fiction, accessible to contemporary audiences.

Prerequisite: Any 4.0 credits in HIS courses
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

International Development Studies

Faculty List

- A. Ahmed, B.A., M.A. (Toronto), Ph.D. (McGill), Assistant Professor
- S. Bamford, B.S. (Michigan Technological University), Ph.D. (George Washington University), Associate Professor
- A. Berry, B.A. (Western), M.A. (Yale), Ph.D. (Princeton), Professor Emeritus
- A.E. Birn, B.A. (Harvard), M.A. (University of Canterbury), Sc.D. (Johns Hopkins), Professor
- L. Bisaillon, B.A. (Bishop's), M.Pl. (McGill), Ph.D. (Ottawa), Assistant Professor
- M.F. Bunce, B.A. (Sheffield), Ph.D. (Sheffield), Associate Professor Emeritus
- L. Chan, B.A., M.A. (Toronto), Associate Professor, Teaching Stream
- B. Dahl, B.A. (U.C. San Diego), M.A., Ph.D. (Chicago), Assistant Professor
- G. Frazer, M.A. (Toronto), Ph.D. (Yale), Assistant Professor
- D. Fu, B.A. (Minnesota), M.Phil, Ph.D. (Oxford), Associate Professor
- M. Hoffmann, B.S. (Michigan Technological University), Ph.D. (George Washington University), Professor
- P-c. Hsiung, B.A. (National Chun-sing), M.A. (Chinese Cultural), M.A., Ph.D. (UCLA), Associate Professor
- M. Hunter, B.A. (Sussex), M.A. (Univ. of Natal), Ph.D. (Univ California, Berkeley), Associate Professor
- M.E. Isaac, B.Sc., M.Sc. (Guelph), Ph.D. (Toronto), Associate Professor
- R. Isakson, Ph.D. Associate Professor
- M. Kale, M.A., Ph.D. (Laval and Nice), Assistant Professor
- T. Kepe, B. Agric. (Fort Hare), M.Sc. (Guelph), Ph.D. (Univ. Western Cape), Professor
- P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Professor
- N. Kortenaar, M.A., Ph.D. (Toronto), Professor
- C. Krupa, B.A., M.A. (Toronto), Ph.D. (California, Davis), Associate Professor
- K. MacDonald, B.A., M.A., Ph.D. (Waterloo), Associate Professor
- S. Mollett, B.A., M.E.S. (York), Ph.D. (Toronto), Associate Professor
- L. Mortensen, B.A. (Cornell), M.A., Ph.D. (Indiana), Assistant Professor, Teaching Stream
- K. Moskowitz, B.A. (Grinnell), M.A. (Emory), Ph.D. (Emory, expected 2014), Assistant Professor
- C. Norrlof, B.A., M.A. (Lund), Ph.D. (Geneva), Associate Professor
- A.G. Price, B.Sc. (Wales), M.Sc., Ph.D. (McGill), Associate Professor Emeritus
- E.C. Relph, B.A., M.Phil. (London), Ph.D. (Toronto), Professor Emeritus
- S.J. Rockel, M.A., Ph.D. (Toronto), Associate Professor
- R. Salem, M.A. (Oxford), Ph.D. (Princeton), Assistant Professor
- J. Sharma, M.A. (Hindu), M.Phil. (Delhi), Ph.D. (Cantab), Assistant Professor
- S. Sicchia, MHSc, M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- J. Teichman, B.A., M.A., Ph.D. (Toronto), FRSC, Professor
- B. von Lieres, B.A., M.A. (Witwatersrand, South Africa), D.Phil (Essex), Assistant Professor, Teaching Stream

Associate Director: L. Chan
Program Advisor: Email: ccds-advisor@utsc.utoronto.ca

The International Development Studies (IDS) programs provide students with a critical understanding of international development issues through exposure to a variety of academic disciplines, cultures, and, in the case of the Specialist Co-op program options, overseas work experience in the field of international development. The IDS programs are challenging and intended for bright and self-motivated students who are interested in both excelling academically and actively engaging themselves in the pursuit of social justice around such issues as poverty, inequality, and oppression. Students in the IDS programs take initiatives, seek empowerment, are driven to solve social and environmental problems, understand the importance of teamwork and coordination, and are responsible and accountable. They have diverse interests that span the social sciences, humanities, and environmental science, all of which are underpinned by a strong sense of social responsibility.

The IDS programs provide students with a critical understanding of international development issues through exposure to a variety of academic disciplines, cultures, and, in the case of the Specialist Co-op programs, overseas work experience in the field of international development. The specific academic objectives of our IDS programs are to:
1. Introduce students to the broad and interconnected range of issues and disciplinary approaches within the field of critical development studies.
2. Provide students with a critical understanding of development theories - their origins and purposes for addressing problems of power, inequality and oppression.
3. Stress the crucial importance of context and power - historical, social-cultural, economic, and political - when critically analyzing development theory and development practice.
4. Promote the development of strong analytical, writing, and professional skills and, where possible, experiential learning opportunities in the field of critical development studies.
5. Promote the development of a vibrant intellectual community - that includes students, faculty, administrators, alumni, and development partners -- that is committed to active involvement in the critical debates within the field of development studies and to critical engagement in development practice.

As a way of enhancing the interdisciplinary nature of the IDS programs, students are also encouraged to consider complementing their particular program in IDS with a parallel program in a related discipline. For example, those doing a Major in IDS might consider a parallel Major or Minor in any one of Anthropology, Environmental Science, Environmental Studies, Economics for Management Studies, Human Geography, Health Studies, History, Political Science, Public Policy, Sociology or Women's and Gender Studies. While not required for graduation, Specialist/Specialist (Co-op) students are also encouraged to consider fulfilling the requirements for a Major or Minor program in a related discipline alongside their Specialist/Specialist (Co-op) program. For details about how these combinations can be worked out, please contact the Program Advisor.

The Major Program in International Development Studies (Science) is suspended to new enrolments. Students who are already enrolled in this Major program should consult the 2009-10 *Calendar*.

Guidelines for first-year course selection
Students intending to complete any currently offered IDS program should include the following required courses in their first-year selection:
Specialist/Specialist (Co-op) Program in International Development Studies (B.Sc.) should enroll in IDSA01H3, EESA01H3, BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MGEA01H3 or MGEA02H3], [MGEA05H3 or MGEA06H3].
Specialist/ Specialist (Co-op) Program in International Development Studies (B.A.) should enroll in IDSA01H3, EESA01H3, [MGEA01H3 or MGEA02H3], [MGEA05H3 or MGEA06H3].
Major Program in International Development Studies (B.A.) should enroll in IDSA01H3.
Minor Program in International Development Studies (B.A.) should enroll in IDSA01H3.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

International Development Studies Programs

SPECIALIST PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)

Program Requirements
This program requires the completion of 13.0 credits, of which at least 4.0 credits must be at the C- or D-level including at least 1.0 credit at the D-level.

1. Introduction to International Development Studies (2.0 credits as follows)
IDSA01H3 Introduction to International Development Studies
[MGEA01H3 Introduction to Microeconomics *or* MGEA02H3 Introduction to Microeconomics: A Mathematical Approach]
[MGEA05H3 Introduction to Macroeconomics *or* MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach]
EESA01H3 Introduction to Environmental Science

2. Core courses in International Development (3.0 credits as follows)
IDSB01H3 Political Economy of International Development
IDSB02H3 Development and Environment
IDSB04H3 Introduction to International/Global Health
IDSB06H3 Equity, Ethics and Justice in International Development
POLB90H3 Comparative Development in International Perspective
POLB91H3 Comparative Development in Political Perspective

3. Methods for International Development Studies (1.5 credits as follows)
IDSC04H3 Project Management I
and
0.5 credit in Quantitative/statistical methods from the following:
ANTC35H3 Quantitative Methods in Anthropology
MGEB11H3 Quantitative Methods in Economics I
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
GGRB30H3 Fundamentals of GIS I
HLTB15H3 Introduction to Health Research Methodology
STAB23H3 Introduction to Statistics for the Social Sciences
and
0.5 credit in Qualitative methods from the following:
ANTB19H3 Ethnography and the Comparative Study of Human Societies
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography
HLTC04H3 Critical Qualitative Health Research Methods
POLC78H3 Political Analysis I
WSTB05H3 Understanding Power and Knowledge in Research

4. Research in International Development Requirement (0.5 credit):
IDSD02H3 Advanced Seminar in Critical Development Studies: Theory and Policy

5. Specialized Courses: Approaches to International Development (6.0 credits)
A minimum of 2.0 credits must be chosen from two different clusters below for a total of 4.0 credits. The other 2.0 credits may be selected from any of the courses listed below, and IDSA02H3/ AFSA03H3, IDSC07H3, IDSC10H3, IDSC15H3, IDSC20H3, IDSD10H3, IDSD12H3 and IDSD13H3, IDSD14H3 and IDSD15H3 may also be counted towards the completion of this requirement.

Media and Development
ANTB09H3 Culture from Film and Media
ANTC53H3 Anthropology of Media and Publics
ENGC84H3 Cinema and Migration
GASC40H3/MDSC40H3 Chinese Media and Politics
GASC41H3/MDSC41H3 Media and Popular Culture in East Asia
IDSB10H3 Political Economy of Knowledge Technology and Development
IDSC08H3 Media and Development
MDSA01H3 Introduction to Media Studies
MDSB05H3/GASB05H3 Media and Globalization
MDSB10H3 Technology, Culture and Society
MDSB15H3 Social Media, Platform Politics and Digital Cultures
MDSB61H3 Mapping New Media
MGEC20H3 Economics of Media
MDSC62H3 Media, Journalism and Digital Labour
SOCC44H3 Media and Society
THRC20H3/(VPDC13H3) Theatre and Social Justice
VPHB50H3 Africa Through the Photographic Lens
WSTB13H3 Gender, Media and Culture

Culture and Society
ANTB05H3/AFSB05H3 Culture and Society in Africa
ANTB18H3 Development, Inequality and Social Change in Latin America
ANTB20H3 Culture, Politics and Globalization
ANTB64H3 Are You What You Eat?: The Anthropology of Food
ANTC10H3 Anthropological Perspectives on Development
ANTC34H3 The Anthropology of Transnationalism
ANTC52H3 The Global Politics of Language
ANTC59H3 Anthropology of Language and Media
ANTC66H3 Anthropology of Tourism
GASC43H3 Colonialism and Cultures in Modern East Asia
GGRD14H3 Social Justice and the City
HISB50H3 Africa in the Era of the Slave Trade
HISB51H3/AFSB51H3 Africa from the Colonial Conquests to Independence
HISB54H3 Africa in the Postcolonial Era
HISB57H3/GASB57H3 Sub-Continental Histories: South Asia in the World
HISC29H3 Global Commodities: Nature, Culture, History
HISC55H3/AFSC55H3 War and Society in Modern Africa
HISD51H3/AFSD51H3 Southern Africa: Colonial Rule, Apartheid and Liberation
IDSD06H3 Feminist and Postcolonial Perspectives in Development Studies
PHLB05H3 Social Issues
SOCB58H3 Sociology of Culture
SOCB70H3 Social Change
SOCC25H3 Ethnicity, Race and Migration
SOCC29H3 Family and Gender in the Middle East
SOCC34H3 Migrations & Transnationalisms

SOCC58H3 Global Transformations: Politics, Economy & Society
VPMC01H3 Exploring Community Music
VPMD01H3 Senior Seminar: Music in Our Communities

Economics of Development
ANTC19H3 Producing People and Things: Economics and Social Life
MGEB32H3 Economic Aspects of Public Policy
MGEB60H3 Comparative Economic Systems
MGEC21H3 Classics in the History of Economic Thought
MGEC61H3 International Economics: Finance
MGEC62H3 International Economics: Trade Theory
MGEC81H3 Economic Development
MGEC82H3 International Aspects of Development Policy
MGED63H3 Financial Crises: Causes, Consequences and Policy Implications
IDSC12H3 Economics of Small Enterprise and Micro-Credit
IDSC14H3 The Political Economy of Food
GGRC48H3 Geographies of Urban Poverty
POLC69H3 Political Economy: International and Comparative Perspectives
POLC98H3 International Political Economy of Finance

Environment and Land Use
ANTB01H3 Political Ecology
EESB16H3 Feeding Humans - the Cost to the Planet
EESB17H3 Hydro Politics and Transboundary Water Resources Management
ESTC34H3 Sustainability in Practice
ESTC36H3 Knowledge, Ethics and Environmental Decision-Making
GGRB21H3 Political Ecology: Nature, Society and Environmental Change
GGRC10H3 Urbanization and Development
GGRC25H3 Land Reform and Development
GGRC26H3 Geographies of Environmental Governance
GGRC28H3 Indigenous Peoples, Environment and Justice
GGRC44H3 Environmental Conservation and Sustainable Development
GGRD49H3 Land and Land Conflicts in the Americas
IDSC02H3 Environmental Science and Evidence-Based Policy
IDSD07H3/AFSD07H3 Extractive Industries in Africa
PHLB02H3 Environmental Ethics
WSTB20H3/(WSTC20H3) Women, the Environment, and Change

Gender, Health and Development
ANTC14H3 Feminism and Anthropology
ANTC15H3 Genders and Sexualities
ANTC24H3 Culture, Mental Illness, and Psychiatry
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
GGRB28H3 Geographies of Disease
GGRD10H3 Health and Sexuality
HLTC02H3 Women and Health: Past and Present
IDSC11H3 Issues in Global and International Health
POLC79H3 Feminist Political Thought
POLC94H3 Globalization, Gender and Development
WSTB10H3 Women, Power and Protest
WSTB11H3 Intersections of Inequality
WSTC10H3/AFSC53H3 Gender and Critical Development

Politics and Policy
ANTC32H3 Political Anthropology
IDSC11H3 Issues in Global and International Health
IDSC17H3 Development, Citizen Action and Social Change in the Global South
IDSC18H3 New Paradigms in Development: The Role of Emerging Powers
IDSD19H3 The Role of Researcher-Practitioner Engagement in Development
POLB80H3 Introduction to International Relations I
POLB81H3 Introduction to International Relations II
POLC09H3 International Security: Conflict, Crisis and War
POLC16H3 Chinese Politics
POLC37H3 Global Justice
POLC80H3 International Relations of Africa
POLC87H3 International Cooperation and Institutions
POLC88H3 The New International Agenda
POLC90H3 Development Studies: Political and Historical Perspectives
POLC91H3 Latin America: Dictatorship and Democracy
POLC96H3 State Formation and Authoritarianism in the Middle East
POLC97H3 Protest Politics in the Middle East
POLC99H3 Latin America: Politics of the Dispossessed
POLD09H3 Advanced Topics in International Security
POLD87H3 Rational Choice and International Cooperation
POLD89H3 Global Environmental Politics
POLD90H3 Public Policy and Human Development in the Global South
POLD91H3 Protests and Social Movements in Comparative Perspective
POLD92H3 Survival and Demise of Dictatorships
POLD94H3 Selected Topics on Developing Areas

SPECIALIST (CO-OPERATIVE) PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)

Co-op Contact: ids-coop@utsc.utoronto.ca

Enrolment Requirements
Enrolment in the program is limited. The minimum qualifications for entry are 4.0 credits and a cumulative GPA of at least 2.5. Most students are accepted into the program directly from secondary school. Transfer students and current UTSC students may also apply for admission but require a minimum of 4.0 credits up to a maximum of 6.0 credits.

An interview is required. Interviews are normally held from January until May for students who pass the initial screening. Successful applicants will demonstrate strong academic performance, language skills, extra-curricular involvement, and demonstrated an interest in international development.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet

admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the International Development Studies Co-op Office in HL410, or visit the IDS Co-op website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
The program requires a total 15.0 credits, 4.0 credits of which must be at the C- or D-level, including at least 1.0 credit at the D-level. Students must complete components 1-5 of the program requirements as described in the Specialist Program in International Development Studies (Arts).

In addition, students must complete:
6. Co-operative, Language and Thesis Requirements (2.5 credits)
1.0 credit in a second language
IDSC01H3 Research Design for Development Fieldwork (must be taken prior to co-op placement)
IDSD01Y3 Post-placement Seminar and Thesis

Co-op Work Term Requirements
To be eligible for placement, students must have completed 14.5 credits, including IDSC01H3, IDSC04H3 and 6.0 credits from Requirements 1. through 4. as noted above. It is highly recommended that students complete courses towards fulfilling their specialized courses from Requirement 6., as well as the required 1.0 credit in a second language when completing the remainder of the 14.5 credits that are required prior to placement.
Students are required to submit bi-monthly progress reports every 2 months and begin work on a major research project.
In addition to the academic course requirements, students are required to complete two additional non-credit courses: COPB30H3/(COPD02H3) and COPB31H3/(COPD04H3). These courses are taken in the first and third year of the program with the aim of providing students with the skills and knowledge needed to successfully navigate the placement experience. These credits are in addition to the 20.0 credits required for the degree. Work terms are evaluated by the program faculty, the co-op office, and the employer. A grade of CR (credit)/NCR (no credit) is recorded on the transcript.

For information on fees and status in Co-op Programs, and certification of completion of Co-op programs, see section 6B.5 or the International Development Studies Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (SCIENCE)

Program Requirements:

This program requires 13.5 credits of which at least 4.0 credits must be at the C-or D- level including at least 1.0 credit at the D-level.

1. Introduction to Sciences and International Development Studies (4.5 credits):
IDSA01H3 Introduction to International Development Studies
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
EESA01H3 Introduction to Environmental Science

EESA06H3 Introduction to Planet Earth
[MGEA01H3 Introduction to Microeconomics or MGEA02H3 Introduction to Microeconomics: A Mathematical Approach]
[MGEA05H3 Introduction to Macroeconomics or MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach]

2. Core courses in International Development (2.0 credits):
IDSB01H3 Political Economy of International Development
IDSB02H3 Development and Environment
IDSB04H3 Introduction to International/Global Health
IDSB06H3 Equity, Ethics and Justice in International Development

3. Core Courses in Environmental Biology (2.5 credits):
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
EESB03H3 Principles of Climatology
EESB05H3 Principles of Soil Science
EESB16H3 Feeding Humans - The Cost to the Planet

4. Methods for International Development Studies (1.5 credits):
IDSC04H3 Project Management I
STAB22H3 Statistics I (or equivalent)
and
0.5 credit from the following:
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
EESC03H3 Geographic Information Systems and Remote Sensing

5. Advanced courses in Environmental Biology (2.0 credits, of which 0.5 credit must be at the D-level):
Choose from:
BIOC37H3 Plants: Life on the Edge
BIOC58H3 Biological Consequences of Global Change
BIOC61H3 Community Ecology and Environmental Biology
BIOC62H3 Role of Zoos and Aquariums in Conservation
BIOC63H3 Conservation Biology
EESC04H3 Biodiversity and Biogeography
BIOD54H3 Applied Conservation Biology
EESD06H3 Climate Change Impact Assessment

6. Environmental Science in Practice (0.5 credit):
Choose from:
EESC13H3 Environmental Impact Assessment and Auditing
(GGRC22H3) Political Ecology Theory and Applications
GGRC26H3 Geographies of Environmental Governance
GGRC44H3 Environmental Conservation and Sustainable Development
IDSC02H3 Environmental Science and Evidence-Based Policy

7. Research in International Development Requirement (0.5 credit):
IDSD02H3 Advanced Seminar in Critical Development Studies: Theory and Policy

SPECIALIST (CO-OPERATIVE) PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (SCIENCE)

Co-op Contact: ids-coop@utsc.utoronto.ca

Enrolment Requirements
Enrolment in the Program is limited. The minimum qualifications for entry are 4.0 credits and a Cumulative GPA of at least 2.5. Most students are accepted into the program directly from secondary school. Transfer students and current UTSC students may also apply for admission but require a minimum of 4.0 credits up to a maximum of 6.0 credits.

An interview is required. Interviews are normally held from January until May for students who pass the initial screening. Successful applicants will demonstrate strong academic performance, language skills, extra-curricular involvement, and demonstrated an interest in international development.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the International Development Studies Co-op Office in HL410, or visit the IDS Co-op website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements

The program requires students to complete a total 15.5 credits, of which 4.0 credits must be at the C- or D- level including at least 1.0 credit at the D-level.

1. Introduction to Sciences and International Development Studies (4.5 credits):
IDSA01H3 Introduction to International Development Studies
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
[MGEA01H3 Introduction to Microeconomics or MGEA02H3 Introduction to Microeconomics: A Mathematical Approach]
[MGEA05H3 Introduction to Macroeconomics or MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach]

2. Core Courses in International Development (2.0 credits):
IDSB01H3 Political Economy of International Development
IDSB02H3 Development and Environment
IDSB04H3 Introduction to International/Global Health
IDSB06H3 Equity, Ethics and Justice in International Development

3. Core courses in Environmental Biology (2.5 credits):
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
EESB03H3 Principles of Climatology
EESB05H3 Principles of Soil Science
EESB16H3 Feeding Humans - The Cost to the Planet

4. Methods for International Development Studies (1.5 credits):
IDSC04H3 Project Management I
STAB22H3 Statistics I or equivalent
and
0.5 credit from the following:
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
EESC03H3 Geographic Information Systems and Remote Sensing

5. Advanced Courses in Environmental Biology (2.0 credits of which 0.5 must be at the D-level):
Choose from:
BIOC37H3 Plants: Life on the Edge
BIOC58H3 Biological Consequences of Global Change
BIOC61H3 Community Ecology and Environmental Biology
BIOC62H3 Role of Zoos and Aquariums in Conservation
BIOC63H3 Conservation Biology
EESC04H3 Biodiversity and Biogeography
BIOD54H3 Applied Conservation Biology
EESD06H3 Climate Change Impact Assessment

6. Environmental Science in Practice (0.5 credit):
Choose from:
EESC13H3 Environmental Impact Assessment and Auditing
(GGRC22H3) Political Ecology Theory and Applications
GGRC25H3 Land Reform and Development
GGRC26H3 Geographies of Environmental Governance
GGRC44H3 Environmental Conservation and Sustainable Development
IDSC02H3 Environmental Science and Evidence-Based Policy

7. Co-operative, Language and Thesis Requirements (2.5 credits):
1.0 credit in a second language
IDSC01H3 Research Design for Development Fieldwork* (*must be taken prior to Co-op placement)
IDSD01Y3 Post-placement Seminar and Thesis

Co-op Work Term Requirements

To be eligible for placement, students must have completed 14.5 credits, including 10.5 credits from Requirements 1. through 4. as noted above and IDSC01H3. It is highly recommended that students complete courses towards fulfilling their specialized courses from Requirement 6., as well as the required 1.0 credit in a second language, when completing the remainder of the 14.5 credits that are required prior to placement.

Students are required to submit bi-monthly progress reports every 2 months and begin work on a major research project.

In addition to the academic course requirements, students are required to complete two additional non-credit courses: COPB30H3/(COPD02H3) and COPB31H3/(COPD04H3). These courses are taken in the first and third year of the program with the aim of providing students with the skills and knowledge needed to successfully navigate the placement experience. These credits are in addition to the 20.0 credits required for the degree. Work terms are evaluated by the program faculty, the Co-op Office, and the employer. A grade of CR (credit)/NCR (no credit) is recorded on the transcript.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the International Development Studies Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)

Program Requirements
This program requires 8.0 credits of which at least 2.0 credits must be at the C- or D-level.

1. Introduction to International Development Studies (0.5 credit)
IDSA01H3 Introduction to International Development Studies

2. Core courses in International Development (1.5 credits)
1.5 credits from the following:
IDSB01H3 Political Economy of International Development
IDSB02H3 Development and Environment
IDSB04H3 Introduction to International/Global Health
IDSB06H3 Equity, Ethics and Justice in International Development
POLB90H3 Comparative Development in International Perspective
(Students wishing to take IDSB01H3 should be aware that there are A-level prerequisites for this course.)

3. Methods for International Development Studies (1.5 credits)
IDSC04H3 Project Management I
and
0.5 credit in quantitative/statistical methods from the following:
ANTC35H3 Quantitative Methods in Anthropology
MGEB11H3 Quantitative Methods in Economics I
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
GGRB30H3 Fundamentals of GIS I
HLTB15H3 Introduction to Health Research Methodology
STAB23H3 Introduction to Statistics for the Social Sciences
and
0.5 credit in qualitative methods from the following:
ANTB19H3 Ethnography and the Comparative Study of Human Societies
HLTC04H3 Critical Qualitative Health Research Methods
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography
POLC78H3 Political Analysis I
WSTB05H3 Understanding Power and Knowledge in Research

4. Specialized Courses (4.5 credits)
4.5 credits from the courses listed in Requirement 5 of the B.A. version of the Specialist program in

IDS with at least 1.0 credit from each of TWO of the clusters. POLB91H3 may be counted toward this requirement.

MINOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS)

The Minor in International Development Studies (IDS) will provide students with an introduction to a critical understanding of international development issues, and the academic building blocks for greater awareness of the world around them, as well as an entry point into greater academic study of international development itself. 2.0 credits are in 'core' courses at the first and second year level, the other 2.0 credits will be electives from cognate fields, allowing students to take courses that might have synergies with their Major or Specialist programs.

Program Requirements
This program requires the completion of 4.0 credits, of which at least 1.0 credit must be at the C- or D-level.

1. Introduction to International Development Studies (0.5 credit)
IDSA01H3 Introduction to International Development Studies

2. Core courses in International Development (1.5 credits)
Choose from the following:
IDSB01H3 Political Economy of International Development*
IDSB02H3 Development and Environment
IDSB04H3 Introduction to International/Global Health
IDSB06H3 Equity, Ethics and Justice in International Development
POLB90H3 Comparative Development in International Perspective
*Students interested in IDSB01H3 are cautioned that it contains prerequisites not included in this offering.

3. Specialized Courses (2.0 credits)
2.0 credits from the courses listed in Requirement 5 of the Specialist BA in International Development Studies, of which at least 1.0 credit must be at the C- or D-level. POLB91H3 may be counted toward this requirement.

CERTIFICATE IN GLOBAL DEVELOPMENT, ENVIRONMENT AND HEALTH (U OF T GLOBAL SCHOLAR)

The Certificate in Global Development, Environment, and Health (U of T Global Scholar) builds upon UTSC's longstanding academic strength in globally-oriented, interdisciplinary, and experiential education. This certificate will facilitate, support and ultimately recognize, this global perspective.

Enrolment Requirements

This Certificate will be open to all students in all degree programs.
The Certificate will be supplementary and concurrent; it cannot be taken on its own and cannot replace any degree-required program (i.e., one Specialist; two Majors; or one Major and two Minors).

Certificate Requirements

Students must complete a minimum of 2.0 credits as follows:

1. 1.0 credits from the following:
IDSA01H3 Introduction to International Development Studies
IDSB11H3 Global Development in Comparative Perspective

2. At least 0.5 credit at the B-level, from the list of electives in Table 1 below.

3. At least 0.5 credit at the C- or D-level from the list of electives in Table 1 below.

Table 1

B-level	AFSB51H3, AFSB54H3, ANTB05H3, ANTB18H3, GGRB28H3, HISB30H3, HISB51H3, HISB58H3, IDSB01H3, IDSB02H3, IDSB04H3, IDSB06H3, POLB90H3, POLB91H3, or SOCB60H3
C-level	AFSC53H3/WSTC10H3, AFSC70H3/HISC70H3, ANTC10H3, ANTC68H3, ANTC89H3, ENGC19H3, ENGC70H3, ENGC71H3, GASC59H3/HISC59H3, GGRC10H3, GGRC25H3, GGRC56H3, HISC45H3, HISC55H3, HISC58H3, HISC75H3, HISC97H3, HLTC44H3, HLTC46H3, IDSC10H3, IDSC11H3, IDSC15H3, IDSC17H3, IDSC18H3, MGEC82H3, POLC16H3, POLC53H3, POLC80H3, POLC90H3, POLC91H3, POLC94H3, POLC96H3, POLC97H3, POLC99H3, SOCC25H3, SOCC29H3, SOCC34H3, SOCC52H3, or WSTC13H3

D-level	GASD02H3, GASD03H3, GGRD49H3, HISD31H3, HISD51H3, HISD52H3, HLTD06H3, HLTD13H3, HLTD25H3, HLTD48H3, HLTD49H3, IDSD02H3, IDSD06H3, IDSD10H3, IDSD12H3, IDSD13H3, IDSD19H3, POLD89H3, POLD90H3, POLD91H3, SOCD15H3, SOCD20H3, or SOCD55H3

International Development Studies Courses

IDSA01H3 - Introduction to International Development Studies

History, theory and practice of international development, and current approaches and debates in international development studies. The course explores the evolution of policy and practice in international development and the academic discourses that surround it. Lectures by various faculty and guests will explore the multi-disciplinary nature of international development studies. This course is a prerequisite for all IDS B-level courses.

Breadth Requirements: Social & Behavioural Sciences

IDSA02H3 - Experiencing Development in Africa

This experiential learning course allows students to experience first hand the realities, challenges, and opportunities of working with development organizations in Africa. The goal is to allow students to actively engage in research, decision-making, problem solving, partnership building, and fundraising, processes that are the key elements of development work.
Same as AFSA03H3

Prerequisite: AFSA01H3 or IDSA01H3
Exclusion: AFSA03H3
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

IDSB01H3 - Political Economy of International Development

Introduces students to major development problems, focusing on international economic and political economy factors. Examines trade, aid, international institutions such as the World Bank, the IMF and the WTO. Examines both conventional economic perspectives as well as critiques of these perspectives. This course can be counted for credit in ECM Programs.

Prerequisite: [MGEA01H3/(ECMA01H3) and MGEA05H3/(ECMA05H3)] or [MGEA02H3/(ECMA04H3) and MGEA06H3/(ECMA06H3)] and IDSA01H3
Exclusion: ECO230Y
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

IDSB02H3 - Development and Environment

The environmental consequences of development activities with emphasis on tropical countries. Environmental change in urban, rainforest, semi-arid, wetland, and mountainous systems. The influences of development on the global environment; species extinction, loss of productive land, reduced access to resources, declining water quality and quantity, and climate change.

Prerequisite: IDSA01H3 or EESA01H3
Breadth Requirements: Natural Sciences

IDSB04H3 - Introduction to International/Global Health

This course offers an introduction to the political, institutional, social, economic, epidemiological, and ideological forces in the field of international/global health. While considerable reference will be made to “high-income” countries, major emphasis will be placed on the health conditions of “low- and middle-income” countries – and their interaction with the development “aid” milieu. After setting the historical and political economy context, the course explores key topics and themes in global health including: international/global health agencies and activities; data on health; epidemiology and the global distribution of health and disease; the societal determinants of health and health equity; health economics and the organization of health care systems in comparative perspective; globalization, trade, work, and health; health humanitarianism in the context of crisis, health and the environment; the ingredients of healthy societies across the world; and social justice approaches to global health.

Prerequisite: 5.0 credits including IDSA01H3
Breadth Requirements: Social & Behavioural Sciences

IDSB06H3 - Equity, Ethics and Justice in International Development

What constitutes equitable, ethical as well as socially and environmentally just processes and outcomes of development? This course explores these questions with particular emphasis on their philosophical and ideological foundations and on the challenges of negotiating global differences in cultural, political and environmental values in international development.

Prerequisite: IDSA01H3
Breadth Requirements: History, Philosophy & Cultural Studies

IDSB10H3 - Political Economy of Knowledge Technology and Development

Examines in-depth the roles of information and communication technology (ICT) in knowledge production and their impact on development. Do new forms of social media make communication more effective, equitable, or productive in the globalized world? How has network media changed governance, advocacy, and information flow and knowledge exchange and what do these mean for development?

Prerequisite: IDSA01H3
Exclusion: (ISTB01H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: Effective Summer 2013 this course will not be delivered online; instead, it will be delivered as an in-class seminar.

IDSB11H3 - Global Development in Comparative Perspective

This course will focus on the importance of historical, socio-economic, and political context in understanding the varying development experiences of different parts of the Global South. In addition to an introductory and concluding lecture, the course will be organized around two-week modules unpacking the development experience in four different regions of the Global South – Latin America/Caribbean, Africa, the Middle East, and South/South East Asia.

Prerequisite: IDSA01H3
Breadth Requirements: Social & Behavioural Sciences

IDSC01H3 - Research Design for Development Fieldwork

Examines research design and methods appropriate to development fieldwork. Provides `hands on' advice (practical, personal and ethical) to those preparing to enter "the field"; or pursuing development work as a career. Students will prepare a research proposal as their main course assignment.

Prerequisite: IDSA01H3 and 9.0 full credits in total including at least 6.0 credits satisfying Requirements 1 through 4 of the Specialist Co-op program
Enrolment Limits: 20. Limited to students enrolled in the Specialist Coop Program in IDS. Students in other IDS programs may be admitted with permission of instructor subject to the availability of spaces.
Breadth Requirements: Social & Behavioural Sciences

IDSC02H3 - Environmental Science and Evidence-Based Policy

The role science plays in informing environmental policy is sometimes unclear. Students in this interdisciplinary class will examine key elements associated with generating scientific environmental knowledge, and learn how this understanding can be used to inform and critique environmental policy. Discussions of contemporary domestic and international examples are used to highlight concepts and applications.

Prerequisite: 8.0 credits including EESA01H3
Recommended Preparation: IDSB02H3
Enrolment Limits: 50
Breadth Requirements: Natural Sciences

IDSC04H3 - Project Management I

Studies the phases of the project management cycle with emphasis on situational analysis and identification of needs, project implementation, project monitoring and evaluation. Examines basic organizational development, the role of Canadian non-governmental organizations engaged in the delivery of development assistance as well as with CIDA's policies and practices.

Prerequisite: IDSA01H3 and [1.0 credit at the B-level in IDS courses]
Enrolment Limits: Restricted to students in the IDS Specialist and Major programs.
Breadth Requirements: Social & Behavioural Sciences

IDSC06H3 - Directed Reading on Canadian Institutions and International Development

This Directed Readings course is designed for students who **already have an ongoing working relationship with a Canadian Development institution** (both non-government organizations and private agencies). The course will run parallel to the work experience. Students interested in this course must contact and obtain permission from the CCDS Associate Director prior to the beginning of term.

Prerequisite: IDSA01H3 and [1.0 credit at the B-level in IDS courses]
Recommended Preparation: IDSC04H3

IDSC07H3 - Project Management II

A case study approach building on Project Management I. Examines: the art of effective communication and negotiation, visioning, participatory and rapid rural appraisal; survey design and implementation; advanced financial management and budgeting; basic bookkeeping and spreadsheet design; results based management; environmental impact assessments; cross-cultural effectiveness; and gender and development.

Prerequisite: IDSA01H3 and IDSC04H3
Enrolment Limits: Limited to students in IDS Specialist and Major programs. Other students may be admitted with permission of instructor.
Breadth Requirements: Social & Behavioural Sciences

IDSC08H3 - Media and Development

Critical perspectives on the effects of traditional and 'new' media on development policy and practice. The course examines the increasingly significant role the media plays in the development process, the ways in which media-generated images of development and developing countries affect development policy and the potential of 'new' media for those who are marginalized from the development process.

Prerequisite: IDSA01H3 and IDSB10H3
Enrolment Limits: 35
Breadth Requirements: Social & Behavioural Sciences

IDSC10H3 - Topics in International Development Studies

Contents to be determined by instructor.

Prerequisite: IDSA01H3 and IDSB01H3 and IDSB02H3

IDSC11H3 - Issues in Global and International Health

Key global and international health issues are explored in-depth in three learning phases. We begin with a reading and discussion seminar on international/global health policy and politics. (Exact topic changes each year based on student interest and developments in the field). Next, students develop group projects designed to raise awareness around particular global and international health problems, culminating in UTSC International Health Week in the Meeting Place. The third phase --which unfolds throughout the course-- involves individual research projects and class presentations.

Prerequisite: 8.0 credits including IDSA01H3 and IDSB04H3
Enrolment Limits: 35
Breadth Requirements: Social & Behavioural Sciences

IDSC12H3 - Economics of Small Enterprise and Microcredit

Considers the role of micro- and small/medium enterprise in the development process, as compared to the larger firms. Identifies the role of smaller enterprises in employment creation and a more equitable distribution of income. Examines policies which can contribute to these outcomes, including micro-credit. This course can be counted for credit in ECM Programs.

Prerequisite: IDSA01H3 and IDSB01H3
Exclusion: (IDSB05H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

IDSC14H3 - The Political Economy of Food

Examines how institutions and power relations shape the production and distribution of food, particularly in the global South. The course evaluates competing theories of hunger and malnutrition. It also explores the historical evolution of contemporary food provisioning and evaluates the viability and development potential of alternative food practices.

Prerequisite: IDSB01H3
Enrolment Limits: 35
Breadth Requirements: Social & Behavioural Sciences

IDSC15H3 - Special Topics in International Development Studies

The topics presented in this course will represent a range of issues in international development studies. Topics will vary by instructor and term.

Prerequisite: 10.0 credits including IDSA01H3
Breadth Requirements: Social & Behavioural Sciences

IDSC17H3 - Development, Citizen Action and Social Change in the Global South

Explores the question of citizenship through theories of citizen participation and action in dialogue with a wide range of recent empirical case studies from the global south. Going beyond formal rights and status, the course looks at deeper forms of political inclusion and direct participation in decision-making on political and policy issues.

Prerequisite: IDSA01H3 and [1.0 credit at the B-level in IDS courses]
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

IDSC18H3 - New Paradigms in Development: The Role of Emerging Powers

This course examines the growing role of the emerging powers - the BRICS countries grouping of Brazil, Russia, India, China and South Africa - in international development. The course examines recent development initiatives by these actors in Africa, Latin America and Asia. It also explores the question of whether BRICS-led development programs and practices challenge the top-down, expert led stances of past development interventions – from colonialism to the western aid era.

Prerequisite: IDSA01H3 and [1.0 credit at the B-level in IDS courses]
Breadth Requirements: Social & Behavioural Sciences

IDSC20H3 - Critical Approaches to Community Engagement in Development

This course focuses on critical approaches to community engagement in international development. The first half of the course traces the history of critical and participatory approaches to community engagement in development. In the second half of the course students are trained in critical and ethical approaches to participatory community-engaged research. Student's learning will be guided by an iterative pedagogical approach aimed at facilitating dialogue between theory, practice and experience. Students taking this course will learn about the challenges faced by communities in their interactions with a range of development actors, including international development agencies, local NGOs, state actors and universities.

Prerequisite: IDSA01H3 and IDSB06H3
Breadth Requirements: Social & Behavioural Sciences

IDSD01Y3 - Post-placement Seminar and Thesis

Normal enrolment in this course will be made up of IDS students who have completed their work placement. Each student will give at least one seminar dealing with their research project and/or placement. The research paper will be the major written requirement for the course, to be submitted no later than mid-March. The course will also include seminars by practicing professionals on a variety of development topics.

Prerequisite: IDSA01H3 and students must have completed the first four years of the IDS Specialist Co-op Program or its equivalent and have completed their placement. Also, permission of the instructor is required.

IDSD02H3 - Advanced Seminar in Critical Development Studies: Theory and Policy

An advanced seminar in critical development theory and policy, with an emphasis on perspectives and theories from the global South. Students will write a series of theoretical reflections on contemporary policy issues, that contributes to a final critical development theory paper. Students will present the results of their thinking in a conference setting.

Prerequisite: 14.0 credits including IDSC04H3
Enrolment Limits: 25; Restricted to students in the non co-op IDS Specialist programs. If space is available, students from the IDS Major program may gain admission with the permission of the instructor.
Breadth Requirements: Social & Behavioural Sciences

IDSD06H3 - Feminist and Postcolonial Perspectives in Development Studies

This interdisciplinary course traces the advance of feminist and postcolonial thinking in development studies. The course serves as a capstone experience for IDS students and social science majors looking to fully engage with feminist and postcolonial theories of development. This course combines short lectures with student led-discussions and critical analyses of development thought and practice.

Prerequisite: 12.0 credits including IDSA01H3
Recommended Preparation: IDSB06H3
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

IDSD07H3 - Extractive Industries in Africa

This course examines resource extraction in African history. We examine global trade networks in precolonial Africa, and the transformations brought by colonial extractive economies. Case studies, from diamonds to uranium, demonstrate how the resource curse has affected states and economies, especially in the postcolonial period.
Same as AFSD07H3

Prerequisite: 8.0 credits including [AFSA01H3 or IDSA01H3] and [AFSA03H3/IDSA02H3] and [1.0 credit at the B-level in AFS or IDS courses]
Exclusion: AFSD07H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

IDSD10H3 - Topics in International Development Studies

Contents to be determined by Instructor.

Prerequisite: 12.0 credits, including IDSA01H3
Enrolment Limits: 25

IDSD12H3 - Topics in International Development Studies

The topics presented in this course will represent a range of issues in international development studies. Topics will vary by instructor and term.

Prerequisite: 12.0 credits, including IDSA01H3
Enrolment Limits: 25

IDSD13H3 - Special Topics in International Development Studies

The topics presented in this course will represent a range of issues in international development studies. Topics will vary by instructor and term.

Prerequisite: 12.0 credits including IDSA01H3
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

IDSD14H3 - Directed Reading

The goal of the course is for students to examine in a more extensive fashion the academic literature on a particular topic in International Development Studies not covered by existing course offering. Courses will normally only be available to students in their final year of study at UTSC. Students must obtain consent from the CCDS Associate Director before registering for this course.

Prerequisite: 12.0 credits, including IDSA01H3

IDSD15H3 - Directed Research

The goal of the course is for students to prepare and write a senior undergraduate research paper in International Development Studies. For upper-level students whose interests are not covered in one of the other courses normally offered. Courses will normally only be available to students in their final year of study at UTSC. Students must obtain consent from the CCDS Associate Director before registering for this course.

Prerequisite: 12.0 credits including IDSA01H3 and permission of the instructor

IDSD19H3 - The Role of Researcher-Practitioner Engagement in Development

This course focuses on recent theories and approaches to researcher-practitioner engagement in development. Using case studies, interviews, and extensive literature review, students will explore whether such engagements offer opportunities for effective social change and improved theory.

Prerequisite: 12.0 credits, including IDSA01H3
Recommended Preparation: IDSC04H3
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

International Development Studies (IDS) Co-op

Contact Email: ids-coop@utoronto.ca

The Specialist (Co-op) Program in International Development Students (Arts/Sciences) provides students with a critical understanding of international development issues through a highly interdisciplinary approach, with emphasis on both development theories and practices. In the fourth year of this distinguished five-year program, students embark on an 8 – 12 month placement with an organization in international development.

The Specialist Co-op program is completed as either a B.A. or B.Sc. The broad Social Science stream (B.A.) covers such areas as gender and equity, public policies in health, the economics of development, and media and technology, whereas the Environmental Science stream (B.Sc.), emphasizes agroecosystems and sustainable livelihood.
Now, in its third decade, International Development Studies Co-op is the longest-running program (B.A./B.Sc.) of its kind in Canada, with placement partnerships with over 70 organizations across multiple regions around the world. The work term will normally begin between May and August of the fourth year. The work term is an integral part of the Co-op curriculum and is designed to provide students with practical hands-on experience with a development organization.

The majority of work terms are with Canadian NGOs with overseas presence, local civil society organizations, research institutes, and private sector firms. The location of placements will vary according to each student's disciplinary and regional interests and abilities, the availability of positions, and the practicability and safety of the area. Placement employers are asked to cover the living allowance, and a stipend where possible, for the student. A variety of scholarships to support student placements are also available.

For more information, please visit the International Development Studies Co-op website. For more information on the programs, please see the Specialist (Co-op) Program in International Development Studies (Arts) and the Specialist (Co-op) Program in International Development Studies (Science).

The specific academic objectives of the IDS programs are to:
1. Introduce students to the broad and interconnected range of issues and disciplinary approaches within the field of critical development studies.
2. Provide students with a critical understanding of development theories - their origins and purposes for addressing problems of power, inequality and oppression.
3. Stress the crucial importance of context and power - historical, social-cultural, economic, and political - when critically analyzing development theory and development practice.
4. Promote the development of strong analytical, writing, and professional skills and, where possible, experiential learning, opportunities in the field of critical development studies.
5. Promote the development of a vibrant intellectual community - including students, faculty, administrators, alumni, and development partners - that is committed to active involvement in the critical debates within the field of development studies and to critical engagement in development practice.

Status in Co-op Programs:
Status in the IDS Co-op program will be determined at the end of each session (Fall, Winter, and Summer) for students who have attempted at least 4.0 credits since beginning their studies at UTSC,

or in other Arts and Sciences Divisions at the University. Students with a cumulative grade point average (CGPA) of 2.5 or higher are considered to be in good standing.

- Students whose CGPA falls below 2.5 will be placed on probation.
- Students may clear probation by achieving a CGPA of 2.5 or better in the next study session. Where the CGPA is below 2.5, but the sessional grade point average (SGPA) is at least 2.5, students may be granted a second probationary semester.
- Students must clear their probation within a maximum of two study sessions in order to remain in a Co-op program.
- Students on probation in the Co-op program may not apply for a work-term until they have successfully cleared their probation.
- Students whose CGPA falls below 2.3 will be removed from the Co-op program. A student may switch to the Specialist (Non-Co-op) Program in International Development Studies or to the Major Program in International Development Studies (Arts).

For information on fees in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 Co-operative Programs in the *Calendar*.

International Development Studies (IDS) Co-op Courses

COPB30H3 - Passport to Placement I

This course is designed to prepare students in the International Development Studies Co-op programs with the skills, tools and experience to have a successful placement search. This course is an opportunity for students to explore the stages and dynamics of job searching, investigate various career options based on their skill set and interests, develop a placement search plan and create placement search documents. In addition, through workshops and events, students will have an opportunity to interact with IDS placement partners, senior students, and faculty, and gain insight into trends in the field of international development.

Prerequisite: Restricted to students in the International Development Studies Co-op programs.
Exclusion: (COPD02H3)
Breadth Requirements: Social & Behavioural Sciences
Note: 1. Students should plan to complete this course in the first year of study in their selected IDS Co-op program.
2. The course runs from September to April, and culminates with the completion of an IDS Placement Application Simulation and creation of an IDS Co-op Action Plan.

COPB31H3 - Passport to Placement Part II

This course is designed to prepare students in the International Development Studies Co-op programs with the skills, tools and preparation to be successful during the placement year. Building on the skills developed in the first two years of the program, students will explore placement opportunities based on their skill set and interests. The course will include presentations from International Development Studies placement partners, group exercises, and individual assignments designed to prepare students for the placement experience. Pre-departure orientation activities will include intercultural learning, health and safety issues, placement research, and other key topics. A weekend retreat with returned placement students (fifth-year) provides an opportunity for sharing first-hand experience and knowledge.

Prerequisite: COPB30H3/(COPD02H3); restricted to students in the International Development Studies Co-op programs.
Exclusion: (COPD04H3)
Breadth Requirements: Social & Behavioural Sciences
Note: 1. IDS Co-op students must successfully complete this course prior to their placement.
2. The course runs from September to May.

COPC09H3 - International Development Studies Co-op Work Term

The purpose of the work term placement is for students to gain experience in the professional world of development while applying knowledge gained in the classroom to real life experiences. The majority of students secure work terms with Canadian NGOs, research institutes or private sector consulting firms. Work terms are 8-12 months in length. The location and duration of the work terms will vary according to each student’s disciplinary and regional preferences, their experience and abilities, the availability of positions, and the practicability and safety of work.

Prerequisite: COPB31H3/(COPD04H3) and IDSC01H3 and IDSC04H3; restricted to students in the International Development Studies Co-op programs.

International Studies

The Major in International Studies is suspended to new enrolments. Students who are already enrolled in the Program should consult the 2009-10 *Calendar*.

International Studies Courses

ISTD01H3 - Readings in International Studies

For upper level students whose interests are not covered in one of the other courses normally offered. Courses will normally only be available to students who have completed 15 full credits and all of the Core courses. Students must obtain consent from the Supervisor of Studies and supervising instructor before registering for this course.

Prerequisite: POLB80H3 and POLB81H3 and [(ISTB01H3) or IDSB10H3]

Journalism

Faculty List

- K. Burchell, B.A. (McGill), MSc. (London), Ph.D. (London), Assistant Professor
- T.L. Cowan, B.A. (Simon Fraser), M.A., Ph.D. (Alberta), Assistant Professor
- J. Dvorkin, B.A. Hon. (Alberta), M.A.(Toronto), M. Phil. (London), Lecturer, Emeritus
- S.Yu, B.A. (Simon Fraser), M.I.S. (Yonsei), Ph.D. (Simon Fraser), Assistant Professor

ACM Program Manager: M. Hussain, Email: manaal.hussain@utoronto.ca

Students interested in Journalism have two options: The Specialist (Joint) Program in Journalism and the Major Program in Media, Journalism and Digital Cultures - Journalism Stream.

The Specialist (Joint) Program in Journalism focuses on the critical thinking, research, writing and communications skills needed to examine issues concerning news media, journalism and society. In addition to completing the requirements for the Honours B.A., students pursuing the Specialist (Joint) Program in Journalism will also qualify for the Ontario Graduate Certificate in Contemporary Journalism from Centennial College. In this Specialist (Joint) program, students learn to tell the story from every angle in every media form relevant to today's audiences. Graduates take with them a portfolio demonstrating experience gained from producing a real community newspaper, online publications and internet radio, and are ready for professional careers in the media or in public or private sector communications.

High school students can directly apply to the Specialist (Joint) Program in Journalism. UTSC students interested in pursuing the Specialist (Joint) Program in Journalism can declare this program at the end of year 1, having taken the required A-level courses and ACMB01H3. Students should note they are required to spend three consecutive sessions (Fall, Winter, and Summer) at Centennial College (The Story Arts Centre in East York), in year 3 of their undergraduate career at UTSC.

Students who are interested in the critical analysis of journalism, rather than in becoming a working journalist, may want to consider the Major Program in Media, Journalism and Digital Cultures, which includes a stream in Journalism Studies. For a description of the program, see the Media Studies section of the *Calendar*.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Journalism Programs

SPECIALIST (JOINT) PROGRAM IN JOURNALISM (ARTS)

Program Advisor: M.Hussain Email: acm-pa@utsc.utornto.ca

This program may be taken in fulfillment of the requirements of a four-year (20.0 credit) Honours Bachelor of Arts (BA) degree and requires four to five years to complete. In addition to completing the requirements for the Honours BA, students will also qualify for the Ontario Graduate Certificate in Contemporary Journalism from Centennial College.

Courses are taught at both U of T Scarborough and at Centennial College (The Story Arts Centre in East York). Year 1 and Year 2 of the program are taught at UTSC. Centennial courses are taken during three consecutive college semesters starting in the Fall semester of Year 3 of the program, prior to returning to UTSC for a final semester of instruction in the Fall semester of Year 4 of the program. Students must be registered on a full-time basis while at Centennial College. The course work during the Centennial College portions of the program may include evenings and weekends. The Centennial College portions of the program also includes a 7-week, 35-hour field placement (JOUC25H3). The final semester prior to graduation will take place on the UTSC campus where students will complete the C- and D-level program requirements, including the D-level capstone course.

Guidelines for first-year course selection
Students intending to complete the program should include the following in their first-year course selection: MDSA01H3 and JOUA01H3 and JOUA02H3 and ACMB01H3 and other courses of interest.

Guidelines for computer and software selection
Students accepted in the Joint Program in Journalism are advised to purchase an industry standard laptop and obtain designated software and hardware.
- Computer: 13-inch Apple MacBook Pro capable of running the current version of Adobe software.
- Software: Microsoft Office Suite (Word, Excel, Powerpoint), 2010 or more recent version, and Adobe Photoshop (most recent version).
- For questions regarding camera equipment, please contact the Centennial College Program Coordinator, Prof. Tim Doyle TDoyle@centennialcollege.ca

The Journalism Study Guide, please visit the following website.

Enrolment Requirements

This program has limited enrolment. Applicants must fill out a joint program application form, which is available online at www.utsc.utoronto.ca/jtprogs

Students must maintain a Cumulative Grade Point Average (CGPA) of 2.0 or higher to remain in the program.

Program Requirements
This program requires the completion of at least 13.0 credits, as indicated below:

1. First Year (2.5 credits):
Introductory Journalism Courses (1.0 credit)
JOUA01H3 Introduction to Journalism and News Literacy I
JOUA02H3 Introduction to Journalism II

Introductory Media Studies Courses (0.5 credit)
MDSA01H3 Introduction to Media Studies

Introductory Humanities Courses (1.0 credit)
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
ACMB02H3 Methods of Inquiry and Investigation for ACM Programs

Note: Courses for Year 1 of the program are taught on the UTSC Campus.

2. Second Year (2.0 credits):

Journalism Core Courses
JOUB01H3 Covering Immigration and Transnational Issues
JOUB02H3 Critical Journalism
JOUB24H3 Journalism in the Age of Digital Media
JOUB39H3 Fundamentals of Journalistic Writing

Note: Courses for Year 2 of the program are taught on the UTSC Campus.

3. Third Year (6.5 credits):

Journalism Application Courses

(a) Centennial College Group 1 (2.5 credits)
*JOUA06H3 Contemporary Issues in Law and Ethics
*JOUB11H3 News Reporting
*JOUB14H3 Mobile Journalism
*JOUB18H3 Visual Storytelling: Photography and Videography
*JOUB19H3 Data Management and Presentation
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 1 courses after successfully completing at least 10.0 credits at the University of Toronto Scarborough (or obtaining permission of the Program Director), including JOUA01H3, JOUA02H3, MDSA01H3, JOUB01H3, JOUB02H3, JOUB24H3, JOUB39H3, ACMB01H3, and ACMB02H3.

(b) Centennial College Group 2 (2.5 credits)
*JOUB05H3 Advanced Video and Audio Production
*JOUB20H3 Interactive: Data and Analytics
*JOUC18H3 Storyworks
*JOUC19H3 Social Media and Mobile Storytelling
*JOUC20H3 Emerging Tools and Technology
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 2 courses after successfully completing the courses from Centennial College Group 1 above.

Advanced Journalism Application Courses

(c) Centennial College Group 3, Summer Semester (1.5 credits)
*JOUB03H3 Business of Journalism
*JOUC13H3 Entrepreneurial Reporting
*JOUC25H3 Field Placement
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 3 courses after successfully completing the courses from Centennial College Group 2 above.

Note: Courses for Year 3 of the program are taught at the Centennial College Story Arts Centre in East York.Students are advised that, when they are taking courses at Centennial College, they should not also enrol in courses at UTSC.

4. Fourth Year (2.0 credits):

Senior Journalism Studies Courses

1.5 credits at the C- or D-level in MDS or JOU courses, of which at least 0.5 credit must be at the D-level.
JOUD10H3 Senior Seminar in Journalism

Note: courses for Year 4 of the program are taught on the UTSC campus

Journalism Courses

JOUA01H3 - Introduction to Journalism and News Literacy I

An introduction to the social, historical, philosophical, and practical contexts of journalism. The course will examine the skills required to become news literate. The course will look at various types of media and the role of the journalist. Students will be introduced to specific techniques to distinguish reliable news from so-called fake news. Media coverage and analysis of current issues will be discussed.

Exclusion: (MDSA21H3)
Breadth Requirements: Arts, Literature & Language

JOUA02H3 - Introduction to Journalism II

A continuation of JOUA01H3.

Prerequisite: (MDSA21H3) or JOUA01H3
Exclusion: (MDSA22H3)
Breadth Requirements: Arts, Literature & Language

JOUA06H3 - Contemporary Issues in Law and Ethics

An examination of the key legal and ethical issues facing Canadian journalists, with an emphasis on the practical: what a journalist needs to know to avoid legal problems and develop strategies for handling ethical challenges. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 10.0 credits including: JOUB01H3 and JOUB02H3 and ACMB02H3
Corequisite: JOUB11H3 and JOUB14H3 and JOUB18H3 and JOUB19H3
Exclusion: (MDSB04H3)
Breadth Requirements: History, Philosophy & Cultural Studies

JOUB01H3 - Covering Immigration and Transnational Issues

An examination of Canadian coverage of immigration and transnational issues. With the shift in Canada's demographics, media outlets are struggling to adapt to new realities. We will explore how media frame the public policy debate on immigration, multiculturalism, diaspora communities, and transnational issues which link Canada to the developing world.

Prerequisite: ACMB01H3 and JOUA01H3 and JOUA02H3
Exclusion: (MDSB26H3)
Breadth Requirements: Arts, Literature & Language

JOUB02H3 - Critical Journalism

The course examines the representation of race, gender, class and power in the media, traditional journalistic practices and newsroom culture. It will prepare students who wish to work in a media-related industry with a critical perspective towards understanding the marginalization of particular groups in the media.

Prerequisite: 4.0 credits including ACMB01H3 and JOUA01H3 and JOUA02H3
Exclusion: (MDSB27H3)
Breadth Requirements: Arts, Literature & Language

JOUB03H3 - Business of Journalism

Today’s ‘contract economy’ means full-time staff jobs are rare. Students will dissect models of distribution and engagement, discussing trends, predictions and future opportunities in media inside and outside the traditional newsroom. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 14.5 credits, including: [JOUB05H3 and JOUB19H3 and JOUC18H3 and JOUC19H3 and JOUC20H3] and [(JOUB09H3) or JOUB20H3]; students must have a minimum CGPA of 2.0
Corequisite: JOUC13H3 and JOUC25H3
Breadth Requirements: Arts, Literature & Language

JOUB05H3 - Advanced Video and Audio Production

The fundamentals of video, audio storytelling, and performance will be applied to mobile and social platforms, exploring the best practices before researching, interviewing, reporting, editing, and producing content. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 12 credits, including: JOUA06H3 and JOUB11H3 and JOUB14H3 and JOUB18H3 and JOUB19H3
Corequisite: JOUB03H3 and JOUB20H3 and JOUC18H3 and JOUC19H3 and JOUC20H3
Breadth Requirements: Arts, Literature & Language

JOUB11H3 - News Reporting

Through research and practice, students gain an understanding of news judgment and value, finding and developing credible sources and developing interviewing, editing and curating skills. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 10.0 credits including: JOUB01H3 and JOUB02H3 and ACMB02H3
Corequisite: JOUA06H3 and JOUB14H3 and JOUB18H3 and JOUB19H3
Breadth Requirements: Arts, Literature & Language

JOUB14H3 - Mobile Journalism

Today, content creators and consumers both use mobile tools and technologies. Students will explore the principles of design, including responsive design, and how they apply to various platforms and devices. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 10.0 credits including: JOUB01H3 and JOUB02H3 and ACMB02H3; students must have a minimum CGPA of 2.0
Corequisite: JOUA06H3 and JOUB11H3 and JOUB18H3 and JOUB19H3
Breadth Requirements: Arts, Literature & Language

JOUB18H3 - Visual Storytelling: Photography and Videography

Applying photo-journalism principles to the journalist's tool of choice, the smartphone. Students will take professional news and feature photos, video optimized for mobile use and will capture credible, shareable visual cross-platform stories. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 10.0 credits, including JOUB01H3 and JOUB02H3 and ACMB02H3
Corequisite: JOUA06H3 and JOUB11H3 and JOUB14H3 and JOUB19H3
Breadth Requirements: Arts, Literature & Language

JOUB19H3 - Data Management and Presentation

To develop stories from raw numbers, students will navigate spreadsheets and databases, and acquire raw data from web pages. Students will learn to use Freedom of Information requests to acquire data. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 10.0 credits, including: JOUA01H3, JOUA02H3, JOUB01H3, JOUB02H3, and ACMB02H3; students must have a minimum CGPA of 2.0
Corequisite: JOUA06H3 and JOUB11H3 and JOUB14H3 and JOUB18H3
Breadth Requirements: Arts, Literature & Language

JOUB20H3 - Interactive: Data and Analytics

Building the blending of traditional skills in reporting and writing with interactive production protocols for digital news. The course provides an introduction to web development and coding concepts. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 12.0 credits, including: JOUA06H3 and JOUB11H3 and JOUB14H3 and JOUB18H3 and JOUB19H3; students must have a minimum CGPA of 2.0
Corequisite: JOUB05H3 and JOUC18H3 and JOUC19H3 and JOUC20H3
Breadth Requirements: Arts, Literature & Language

JOUB24H3 - Journalism in the Age of Digital Media

Journalism is undergoing a revolutionary change. Old trusted formats are falling away and young people are consuming, producing, exchanging, and absorbing news in a different way. The course will help students critically analyze new media models and give them the road map they will need to negotiate and work in New Media.

Exclusion: (MDSB24H3)
Breadth Requirements: Arts, Literature & Language

JOUB39H3 - Fundamentals of Journalistic Writing

An overview of the standard rules and techniques of journalistic writing. The course examines the basics of good writing style including words and structures most likely to cause problems for writers. Students will develop their writing skills through assignments designed to help them conceive, develop, and produce works of journalism.

Prerequisite: [(MDSA21H3) or JOUA01H3] and [(MDSA22H3) or JOUA02H3] and (HUMA01H3).
Exclusion: (MDSB39H3)
Breadth Requirements: Arts, Literature & Language

JOUC13H3 - Entrepreneurial Reporting

Working in groups under faculty supervision from the newsroom, students will create, present and share significant portfolio pieces of multiplatform content, demonstrating expertise in credible, verifiable storytelling for discerning audiences. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 14.5 credits, including: [JOUB05H3 and JOUC18H3 and JOUC19H3 and JOUC20H3] and [(JOUB09H3) or JOUB20H3]; students must have a minimum CGPA of 2.0
Corequisite: JOUB03H3 and JOUC25H3
Breadth Requirements: Arts, Literature & Language

JOUC18H3 - Storyworks

This experiential learning course provides practical experience in communication, media and design industries, supporting the student-to-professional transition in advance of work placements, and graduation towards becoming practitioners in the field. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 12.0 credits, including: JOUA06H3, JOUB11H3, JOUB14H3, JOUB18H3 and JOUB19H3; students must have a minimum CGPA of 2.0
Corequisite: JOUB05H3 and JOUB20H3 and JOUC19H3 and JOUC20H3
Breadth Requirements: Arts, Literature & Language

JOUC19H3 - Social Media and Mobile Storytelling

Students will effectively use their mobile phones in the field to report, edit and share content, while testing emerging apps, storytelling tools and social platforms to connect with audiences. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 12.0 credits, including: JOUA06H3, JOUB11H3, JOUB14H3, JOUB18H3 and JOUB19H3; students must have a CGPA of 2.0
Corequisite: JOUB05H3 and JOUB20H3 and JOUC18H3 and JOUC20H3
Breadth Requirements: Arts, Literature & Language

JOUC20H3 - Emerging Tools and Technology

From drones to virtual reality, and from augmented reality to artificial intelligence, this course will open students' minds to innovation in storytelling and communications and provide opportunities to discover and explore through interaction with leading-edge practitioners in communications and journalism. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: 12.0 credits, including: JOUA06H3, JOUB11H3, JOUB14H3, JOUB18H3 and JOUB19H3; students must have a minimum CGPA of 2.0
Corequisite: JOUB05H3 and JOUB20H3 and JOUC18H3 and JOUC19H3
Breadth Requirements: Arts, Literature & Language

JOUC25H3 - Field Placement

In Field Placement, students use theoretical knowledge and applied skills in professional journalistic environments. Through individual work and as team members, students create editorial content on various platforms and undertake academic research and writing assignments that require them to reflect upon issues arising from their work placement experience. This course is taught at Centennial College and is open only to students in the Specialist (Joint) program in Journalism.

Prerequisite: Students must be in good standing and have successfully completed groups 1, 2, and be completing group 3 of the Centennial College phase of the Specialist (Joint) program in Journalism.
Breadth Requirements: Arts, Literature & Language

JOUC30H3 - Critical Approaches to Style, Form and Narrative

The forms of Journalism are being challenged as reporting styles diverge and change overtime, across genres and media. New forms of narrative experimentation are opened up by the Internet and multimedia platforms. How do participatory cultures challenge journalists to experiment with media and language to create new audience experiences?

Prerequisite: ACMB01H3 and MDSB05H3 and JOUB39H3
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students in the Specialist (Joint) program in Journalism.

JOUC31H3 - Journalism, Information Sharing and Technological Change

The nexus between journalism, civic engagement and changing technologies presents opportunities and challenges for the way information is produced, consumed and shared. Topics range from citizen and networked journalism, mobile online cultures of social movements and everyday life, to the complicated promises of the internet's democratizing potential and data-based problem solving.

Prerequisite: ACMB01H3 and JOUB24H3
Exclusion: MDSB25H3
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students in the Specialist (Joint) program in Journalism.

JOUC60H3 - Diasporic Media

New media technologies enable more production and distribution of culturally, ethnically and linguistically diverse voices than ever before. Who produces these diverse voices and how accessible are these media? This course explores various types of diasporic media from century-old newspapers to young and hip news and magazine blogs, produced by and for members of a multicultural society.

Same as MDSC60H3

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [2.0 credits at the B-level in JOU courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Exclusion: MDSC60H3
Breadth Requirements: History, Philosophy & Cultural Studies

JOUC62H3 - Media, Journalism and Digital Labour

This course explores themes of labour in *news* media and *new* media. Topics include labour conditions for media workers across sectors; the labour impacts of media convergence; and the global distribution of media labour including content generation and management. The course is structured by intersectional analyses, studying how race and racism, class, gender, sex and sexism, sexuality, nationality, global location and citizenship status, Indigeneity and religion shape our experiences of media, journalism and labour.

Same as MDSC62H3

Prerequisite: ACMB01H3 and [[MDSA01H3 and MDSB05H3] or [JOUA01H3 and JOUA02H3] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Exclusion: MDSC62H3
Breadth Requirements: Arts, Literature & Language

JOUC63H3 - Media Ethics

Introduces students to ethical issues in media. Students learn theoretical aspects of ethics and apply them to media industries and practices in the context of advertising, public relations, journalism, mass media entertainment, and online culture.
Same as MDSC63H3

Prerequisite: ACMB01H3 and [[MDSA01H3 and MDSB05H3] or [JOUA01H3 and JOUA02H3]]
Exclusion: MDSC63H3
Breadth Requirements: History, Philosophy & Cultural Studies

JOUC80H3 - Understanding Audiences in the Digital Age

Understanding the interests and goals of audiences is a key part of media production. This course introduces communication research methods including ratings, metrics, in-depth interviews, and focus groups. The focus of class discussion and research project is to use these methods to be able to understand the nature of audiences' media use in the digital age.

Same as MDSC80H3

Prerequisite: ACMB01H3 and [[2.0 credits at the B level in MDS courses] or [2.0 credits at the B level in JOU courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Exclusion: MDSC80H3
Enrolment Limits: 45
Breadth Requirements: History, Philosophy & Cultural Studies

JOUD10H3 - Senior Seminar in Journalism

A project-oriented capstone course requiring students to demonstrate the skills and knowledge necessary for contemporary journalism. Students will create a project that will serve as part of a portfolio or as a scholarly exploration of the state of the mass media. This course is open only to students in the Journalism Joint Program.

Prerequisite: JOUC13H3 and JOUC16Y3 and JOUC17H3
Breadth Requirements: Arts, Literature & Language

JOUD11H3 - Senior Research Seminar in Media and Journalism

Focusing on independent research, this course requires students to demonstrate the necessary analysis, research and writing skills required for advanced study. This seminar course provides the essential research skills for graduate work and other research-intensive contexts. Students will design and undertake unique and independent research about the state of journalism.
Same as MDSD11H3

Prerequisite: ACMB02H3 and [an additional 4.5 credits in MDS or JOU courses, 1.0 credit of which must be at the C-level]
Exclusion: MDSD11H3
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students in the Specialist (Joint) program in Journalism.

JOUD12H3 - Journalism at the Intersection of Politics, Economics and Ethics

Journalism is a field that influences – and is influenced by – politics, finance, and civil society. This course raises contentious questions about power and responsibility at the core of journalism's role in society. Challenges to the obligations of responsible journalism are examined through changing economic pressures and ties to political cultures.

Prerequisite: [1.0 credit from the following: JOUC30H3, JOUC31H3, JOUC62H3, JOUC63H3]
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students in the Specialist (Joint) program in Journalism.

Languages

Faculty List

- P.R. León, M.A., Ph.D. (Cornell), Professor Emeritus
- C.V. Ponomareff, M.A., Ph.D. (Toronto), Professor Emeritus
- R. Skyrme, B.A., M.Litt. (Bristol), M.A., Ph.D. (Michigan), Professor Emeritus
- H. Wittmann, M.A., Ph.D. (Mass.), Professor Emeritus
- H.X. Wu, M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream

Director: J. Ndayiragije Email: cfldirector@utsc.utoronto.ca
Associate Director: Helen Wu Email: helenxy.wu@utoronto.ca
For curriculum inquiries please contact the department's Program Coordinator: S. Ramrattan Email: sean.ramrattan@utoronto.ca

The courses listed under Languages include English and Chinese Translation (ECT) courses and language courses in Modern Standard Arabic, Bengali, Chinese (Mandarin), Hindi, Japanese, Spanish, Tamil, and a featured language that will be announced when the course is offered. These courses are offered on a rotational basis.

Registration in all courses with the prefixes ECT and LGG are subject to the approval of the instructor. Students who intend to take any LGG A- or B-level Chinese course for the first time must take the placement test/survey on the Department of Language Studies - Chinese website. Students who are interested in other languages will be assessed at the beginning of the course in a manner to be determined by the instructor. Students whose level of proficiency in the language is inappropriate for the level of the course will not be approved for enrolment. In some courses, the status of students will be listed as "interim" (INT) until they are "approved" (APP) by their instructors.
Note: students are not permitted to take language courses in the wrong sequence (i.e., a lower-level course after a higher-level course).

For further information about language courses, please consult the Department of Language Studies Program Coordinator, at sean.ramrattan@utoronto.ca or, where appropriate, the instructors of these courses.

Language Citation
UTSC offers a range of language opportunities and, as students seek international study, work opportunities and post-graduate study, they may be assisted by a notation of language proficiency. See the 6A.5 Language Citation section of the *Calendar* for more information about this notation.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Languages Programs

MINOR PROGRAM IN ENGLISH AND CHINESE TRANSLATION (ARTS)

This program is designed for students, fluent in both English and Chinese, who are interested in English and Chinese translation. It will equip students with the fundamental theoretical knowledge and practical skills required in this profession.

P**rogram Requirements**
Students are required to complete a total of 4.0 credits.

1. 2.0 credits as follows:
LINA01H3 Introduction to Linguistics
LINB06H3 Syntax
LINB60H3 Comparative Study of English and Chinese
[ECTB58H3 Foundations of Translation *or* ECTB61H3 English and Chinese Translation: Theory and Practice]

2. 1.0 credit from the following:
ECTB60H3 Food, Cultures, and Translation
ECTC61H3 Translation Studies in Literature
ECTD68H3 Translation for Business and Media
ECTD69H3 Translation for Government and Public Administration

3. 1.0 credit from the following:
LGGC64H3 Reading Chinese and English: China from the Inside Out
LGGC65H3 Reading Chinese and English: Global Perspectives
LGGC66H3 Classical Chinese and English Translations
LGGD66H3/(LGGC67H3) Literary Chinese and English Translations

Languages Courses

ECTB58H3 - Foundations of Translation

This course is a gateway to translation. After dealing with essential skills necessary in translation such as logical thinking, reading proficiency, and precision and clarity in writing, it focuses on fundamental aspects of translation at the conceptual, lexical, syntactic, grammatical, and stylistic levels. It also discusses the practical issues encountered by translators. A variety of real-world documents will be used for practice.

Breadth Requirements: Arts, Literature & Language

ECTB60H3 - Food, Cultures, and Translation

From wheat to seafood, Canada's food exports to China are increasing and Chinese food is popular in Canada. This course explores food, cultures, and translation using materials in Chinese and English. It gives text analysis in translation and hands-on translation experience from English to Chinese and/or from Chinese into English. Students must be able to read and write Chinese and English well.

Breadth Requirements: Arts, Literature & Language
Note: Students will be assessed by the instructor in their first week of class, and must have a good command of both English and Chinese.

ECTB61H3 - English and Chinese Translation: Theory and Practice

An introduction to the major concepts and theories of translation and a survey of English/Chinese translation in modern history. It discusses linguistic, cognitive, socio-political, and cultural aspects of translation. Through analysis and application of translation theory, students practice the art of translation and develop awareness of issues that translators face.

Exclusion: CHI411H5
Recommended Preparation: Proficiency in Chinese and English
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language
Note: Students must already have mastered the principles of grammar and composition in both English and Chinese.

ECTC61H3 - Translation Studies in Literature

This course focuses on the principles and techniques of literary translation from English to Chinese and vice versa. Students will study various translations and practice translating the works of Canadian writers such as those by Alice Munro and Margaret Atwood. Style and technique will be stressed throughout the course.

Prerequisite: ECTB61H3
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Minor in English To Chinese Translation. Other students will be admitted as space permits.

ECTD68H3 - Translation for Business and Media

Guided by translation theories and techniques, students learn the lexicon, structure, and style used in business and media discourse and gain hands-on experience in translating real-life documents regarding business and media for large Chinese communities within Canada.

Prerequisite: ECTB61H3 and [LGGC64H3 or LGGC65H3 or LGGC66H3]. Students must have a minimum GPA of 70% in LGGC64H or LGGC65H (or an equivalent through an interview).
Recommended Preparation: High proficiency in both Chinese and English.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

ECTD69H3 - Translation for Government and Public Administration

This course covers the English/Chinese translation of documents used in government, public administration, and publicly-funded organizations. It introduces the terminologies and special strategies used to translate official documents. Examples of relevant documents will be translated as part of the course work.

Prerequisite: ECTB61H3 and [LGGC64H3 or LGGC65H3 or LGGC66H3]. Students must have a minimum GPA of 70% in LGGC64H or LGGC65H (or an equivalent through an interview).
Recommended Preparation: High proficiency in both Chinese and English.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGA60H3 - Introductory Standard Chinese I

A comprehensive introduction to Modern Standard Chinese (also known as Mandarin) as a foreign or second language for students with minimal or no previous knowledge of any Chinese dialect. This course emphasizes integrated practical Chinese in listening, speaking, reading, writing (from characters to compositions) and translation.

Exclusion: All EAS, CHI and LGG Chinese language courses. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGA61H3 - Introductory Standard Chinese II

A continuation of LGGA60H3. This course will build on the skills learned in LGGA60H3.

Prerequisite: LGGA60H3 or (LGGA01H3)
Exclusion: All EAS, CHI and LGG Chinese courses except LGGA60H3 or (LGGA01H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

LGGA64H3 - Chinese I for Students with Prior Backgrounds

An introduction to Modern Standard Chinese for students who speak some Chinese (any dialect) because of their family backgrounds but have minimal or no literacy skills in the language. Emphasis is placed on Mandarin phonetics and written Chinese through reading, writing and translation.

Exclusion: (LGGA62H3), (LGGB64H3). All EAS, CHI and LGG Chinese language courses. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGA65H3 - Chinese II for Students with Prior Backgrounds

A continuation of LGGA64H3.

Prerequisite: LGGA64H3 or (LGGA62H3)
Exclusion: (LGGA63H3), (LGGB65H3). All EAS, CHI and LGG Chinese language courses except LGGA64H3 or (LGGB64H3) or (LGGA62H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

LGGA70H3 - Introductory Hindi I

An elementary course for students with no knowledge of Hindi. Students learn the Devanagari script and the Hindi sound system in order to start reading and writing in Hindi. The course also develops listening and speaking skills through culturally-based materials. Course materials are enhanced by audio-visual and computer-based activities.

Exclusion: HIN212Y, NEW212Y, LGGA72Y3, or any knowledge of Hindi. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language
Note: Students who speak Hindi or Urdu as a home language should enrol in LGGB70H3 or LGGB71H3.

LGGA71H3 - Introductory Hindi II

A continuation of LGGA70H3.

Prerequisite: LGGA70H3
Exclusion: HIN212Y, NEW212Y, LGGA72Y3, or knowledge of Hindi beyond materials covered in LGGA70H3. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

LGGA72Y3 - Intensive Introductory Hindi

This is an intensive elementary course for students with no knowledge of Hindi. It combines the materials taught in both LGGA70H3 and LGGA71H3. Students will learn the Devanagari script and the Hindi sound system in order to start reading and writing in Hindi. The course also develops listening and speaking skills through culturally-based materials. Course materials are enhanced by audio-visual and computer-based activities.

Exclusion: LGGA70H, LGGA71H, HIN212Y, NEW212Y, any prior knowledge of Hindi. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 35
Breadth Requirements: Arts, Literature & Language
Note: This is a 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute.

LGGA74H3 - Introductory Tamil I

An elementary course for students with minimal or no knowledge of Tamil. Students learn the Tamil script and sound system. The course also develops listening and speaking skills through culturally-based materials. Course materials are enhanced by audio-visual and computer-based activities.

Exclusion: NEW213Y, LGGA76Y3, or high school Tamil, more than minimal knowledge of Tamil. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGA75H3 - Introductory Tamil II

A continuation of LGGA74H3.

Prerequisite: LGGA74H3
Exclusion: NEW213Y, LGGA76Y3, or knowledge of Tamil beyond materials covered in LGGA74H3. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

LGGA76Y3 - Intensive Introductory Tamil

An intensive elementary course for students with minimal or no knowledge of Tamil. Students learn the Tamil script and sound system. The course also develops listening and speaking skills through culturally-based materials. Course materials are enhanced by audio-visual and computer based activities.

Exclusion: LGGA74H3, LGGA75H3, NEW213Y, high school Tamil, more than minimal knowledge of Tamil. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 35
Breadth Requirements: Arts, Literature & Language
Note: This is a 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute.

LGGA78Y3 - Intensive Introductory Bengali

This is an elementary course for students with no knowledge of Bengali. Students will learn the Bengali script and sound system in order to start reading and writing in Bengali. The course also develops listening and speaking skills through culturally-based materials. Course materials are enhanced by audio-visual and computer based activities.

Exclusion: Any knowledge of Bengali. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Breadth Requirements: Arts, Literature & Language
Note: This is a 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute.

LGGA80H3 - Introductory Japanese I

A beginning course for those with minimal or no knowledge of Japanese. The course builds proficiency in both language and culture. Language practice includes oral skills for simple daily conversation; students will be introduced to the Japanese writing systems and learn to read and write simple passages.

Exclusion: EAS120Y or LGGA82Y3. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGA81H3 - Introductory Japanese II

Continuation of Introductory Japanese I.

Prerequisite: LGGA80H3
Exclusion: EAS120Y or LGGA82Y3. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

LGGA82Y3 - Intensive Introductory Japanese

This course is an intensive elementary course for those with minimal or no knowledge of Japanese. It combines the materials taught in both LGGA80H3 and LGGA81H3, and builds on proficiency in both language and culture. Language practice includes oral skills for simple daily conversation. Students will also be introduced to the Japanese writing systems and learn to read and write simple passages.

Exclusion: LGGA80H, LGGA81H, EAS120Y. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 35
Breadth Requirements: Arts, Literature & Language
Note: This is a 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute.

LGGA90Y3 - Intensive Introductory Spanish

This course is an intensive elementary course in written and spoken Spanish, including comprehension, speaking, reading, and writing. It is designed for students who have no previous knowledge of Spanish. The course will develop listening and speaking skills through culturally-based materials, which will be enhanced by audio-visual and computer-based activities.

Exclusion: Grade 12 Spanish, LGGA30H, LGGA31H, SPA100Y, native or near-native proficiency in Spanish. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 35
Breadth Requirements: Arts, Literature & Language
Note: This is a 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute at UTSC.

LGGA91Y3 - Intensive Introductory Modern Standard Arabic

An introduction to the basic grammar and vocabulary of standard Arabic - the language common to the Arab world. Classroom activities will promote speaking, listening, reading, and writing. Special attention will be paid to reading and writing in the Arabic script.

Exclusion: LGGA40H, LGGA41H, ARA212Y, (NMC210Y), NML210Y, Arabic instruction in high school, prior knowledge of spoken Arabic. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 35
Breadth Requirements: Arts, Literature & Language
Note: This is a 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute.

LGGA95Y3 - Intensive Introduction to a Featured Language

This is an intensive elementary course for students with minimal to no knowledge of the featured language. Students will learn the script and sound system so they may begin to read and write in this language. The course will develop listening and speaking skills through culturally-based materials, which will be enhanced by audio-visual and computer-based activities. Students may not repeat this course for credit, including when the current featured language is different from previous featured languages.

Exclusion: Exclusions will vary, dependent on the language offered; students are cautioned that duplicating their studies, whether inadvertently or otherwise, contravenes UTSC academic regulations.
Enrolment Limits: 35
Breadth Requirements: Arts, Literature & Language
Note: This is a 1.0 credit course that will be offered only in the Summer semesters as part of the Summer Language Institute; it may not be offered every summer. When the course is offered, the featured language and exclusions will be indicated on the Course Timetable.

LGGB60H3 - Intermediate Chinese I

This course will develop listening, speaking, reading, and writing skills in Standard Chinese. Writing tasks will help students to progress from characters to compositions and will include translation from Chinese to English and vice versa. The course is not open to students who have more than the rudiments of Chinese.

Prerequisite: LGGA61H3 or (LGGA02H3)
Exclusion: All EAS and CHI 200- and higher level Chinese language courses; all B- and higher level LGG Chinese language courses; native speakers of any variety of Chinese. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGB61H3 - Intermediate Chinese II

A continuation of LGGB60H3.

Prerequisite: LGGB60H3
Exclusion: All EAS and CHI 200- and higher level language Chinese courses; all B- and higher level LGG Chinese language courses except LGGB60H3, LGGA64H3, and (LGGB64H3). All native speakers of any variety of Chinese. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGB62H3 - Intermediate Chinese for Heritage Students I

This course will further improve the literacy skills of heritage students by studying more linguistically sophisticated and topically extensive texts. Those who have not studied pinyin, the Mandarin pronunciation tool, but know about 600-800 complex or simplified Chinese characters should take this course instead of courses LGGA64H3 and LGGA65H3.

Prerequisite: LGGA65H3 or (LGGA63H3) or equivalent
Exclusion: All EAS and CHI 200- and higher level language Chinese courses; all B- and higher level LGG language Chinese courses. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisite.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGB63H3 - Intermediate Chinese for Heritage Students II

A continuation of LGGB62H3.

Prerequisite: LGGB62H3
Exclusion: All EAS and CHI 200- and higher level language Chinese courses; all B- and higher level LGG Chinese language courses except LGGB62H3.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

LGGB70H3 - Hindi I for Students with Prior Background

Develops language and literacy through the study of Hindi cinema, music and dance along with an introduction to theatrical and storytelling traditions. The course enhances acquisition of cultural competence in Hindi with composition and conversation, complemented by culture-based material, film and other media.

Exclusion: Not for students educated in India. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language

LGGB71H3 - Hindi II for Students with Prior Background

Continuation of LGGB70H3.

Prerequisite: LGGB70H3
Exclusion: Not for students educated in India. The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course including those students who meet the prerequisite.
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

LGGB74H3 - Intermediate Tamil

Tamil language taught through culture for students with heritage language skills or prior formal study. The cultures of South India, Sri Lanka and diaspora populations will be studied to build literacy skills in the Tamil script as well as further development of speaking and listening skills.

Prerequisite: LGGA75H3
Exclusion: Not for students educated in Tamil Naadu or Sri Lanka.
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language

LGGC60H3 - Advanced Chinese I

This course develops all language skills in speaking, listening, reading, writing, and translation, with special attention to idiomatic expressions. Through a variety of texts and interactive materials, students will be introduced to aspects of Chinese life and culture.

Prerequisite: LGGB61H3 or (LGGB04H3) or equivalent
Exclusion: LGGC61H3 or higher at UTSC, and all third and fourth year Chinese language courses at FAS/UTSG and UTM
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

LGGC61H3 - Advanced Chinese II

A continuation of LGGC60H3.

Prerequisite: LGGC60H3 or equivalent
Exclusion: LGGC62H3 or higher at UTSC and all third and fourth year Chinese language courses at FAS/UTSG and UTM.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

LGGC62H3 - Cultures in the East and West

This course focuses on similarities and differences between Chinese and Western cultures through a variety of cultural and literary materials. Students will further develop their language skills and cultural awareness through reading, writing, and translation.

Note: This course **does not** meet any program requirements for the Minor program in English and Chinese Translation

Exclusion: (LGGB66H3), (LGGB67H3), LGGC64H3, LGGC65H3, LGGC66H3, (LGGC67H3), LGGD66H3
Breadth Requirements: Arts, Literature & Language
Note: Students may take this course before or after LGGC63H3.

LGGC63H3 - Canada, China, and Beyond

This course focuses on aspects of Canadian and Chinese societies, and related regions overseas. Through a variety of text and non-text materials, in Chinese with English translation and in English with Chinese translation, students will further improve their language skills and have a better understanding of Canada, China, and beyond.

Exclusion: (LGGB66H3), (LGGB67H3), LGGC64H3, LGGC65H3, LGGC66H3, LGGD66H3/(LGGC67H3)
Breadth Requirements: History, Philosophy & Cultural Studies
Note: 1. This course is not required for the Minor program in English and Chinese Translation.
2. Students may take LGGC63H3 before or after LGGC62H3.

LGGC64H3 - Reading Chinese and English: China from the Inside Out

Intended for students who read Chinese and English well. Complex-simplified character conversion and vice versa, as well as English-Chinese and Chinese-English bilingual texts, are emphasized through reading, discussion, and translation in a variety of topics from, and outside of, Greater China, presentations, translation comparison, translation, and essay writing.

Exclusion: (LGGB66H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language
Note: 1. This course is bilingual and priority will be given to students enrolled in the Minor in English and Chinese Translation.
2. This course may be taken before or after LGGC65H3 or LGGC66H3
3. Students who have taken this course should not subsequently take LGGC60H3, LGGC61H3, LGGC62H3, or LGGC63H3 for credit.

LGGC65H3 - Reading Chinese and English: Global Perspectives

Designed for students who read Chinese and English well. Complex-simplified Chinese character conversion and vice versa, as well as English-Chinese and Chinese-English bilingual texts are emphasized through reading, discussion, and translation in a variety of topics from global perspectives, presentations, translation and translation comparison, and essay writing.

Exclusion: (LGGB67H3). The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course.
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies
Note: 1. This course is bilingual and priority will be given to students enrolled in the Minor in English and Chinese Translation.
2. This course may be taken before or after LGGC64H3 or LGGC66H3
3. Students who have taken this course may not subsequently take LGGC60H3, LGGC61H3, LGGC62H3, or LGGC63H3 for credit.

LGGC66H3 - Classical Chinese and English Translations

This course examines Chinese classics and their English translations, such as The Book of Documents, The Analects of Confucius, The Mencius, The Dao De Jing, and other philosophical maxims, proverbial sayings, rhyming couplets, idioms and poems that still have an impact on Chinese language and culture today.

Prerequisite: A working knowledge of Modern Chinese and English
Exclusion: (EAS206Y), EAS218H1, (EAS306Y), EAS358Y1, EAS455H1, EAS458H1, CHI311H5, CHI408H5, CHI409H5
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language
Note: 1. Priority will be given to students enrolled in the Minor in English and Chinese Translation.
2. This course may be taken before or after LGGC64H3 or LGGC65H3
3. Students who have taken this course may not subsequently take LGGC60H3, LGGC61H3, LGGC62H3, or LGGC63H3 for credit.

LGGC70H3 - Advanced Hindi: From Hindustan to Modern India

Advanced language learning through an introduction to the historical development of the Hindi language. Students develop language skills through the study of educational structure, and literary and cultural institutions in colonial and postcolonial India. The course studies a variety of texts and media and integrates composition and conversation.

Prerequisite: [LGGB70H3 and LGGB71H3]
Exclusion: Not for students educated in India.
Enrolment Limits: 25
Breadth Requirements: Arts, Literature & Language

LGGD66H3 - Literary Chinese and English Translations

This course continues to examine Chinese literary masterpieces of the pre-modern era and their English translations. They include the prose and poetry of many dynasties as well as examples in Literary Chinese of other genres that are still very much alive in Chinese language and society today. An in-depth review of the English translations will be strongly emphasized.

Prerequisite: LGGC66H3
Exclusion: (LGGC67H3), (EAS306Y), EAS358Y1, EAS455H1, EAS458H1, CHI311H5, CHI408H5, CHI409H5
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies
Note: 1. Priority will be given to students enrolled in the Minor in English and Chinese Translation.
2. Students who have taken this course should not subsequently take LGGC60H3, LGGC61H3, LGGC62H3, LGGC63H3, LGGC64H3, LGGC65H3, LGGC66H3 for credit.

Linguistics

Faculty List

- B. Armstrong, H.B.Sc., M.A. (Toronto), M.Sc., Ph.D. (Carnegie Mellon), Assistant Professor
- R.I. Binnick, B.A. (CUNY), M.A., Ph.D. (Chicago), Professor Emeritus
- R. Helms-Park, M.A., Ph.D. (Toronto), Associate Professor
- D.M. James, B.A. (UBC), M.A.(Cornell), Ph.D. (Michigan), Professor Emeritus
- Y. Kang, B.A. (Seoul National), Ph.D. (MIT), Professor
- K. McCrindle, M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- S. Moghaddam, M.A. (Tehran), Ph.D. (Toronto), Assistant Professor, Teaching Stream
- P. Monahan, B.A., M.A. (Florida), Ph.D. (Maryland), Assistant Professor
- J. Ndayiragije, M.A. (Montreal-UQAM), Ph.D. (Montreal-UQAM), Associate Professor
- R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Professor Emeritus
- H.X. Wu, M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream

Director: J. Ndayiragije Email: cfldirector@utsc.utoronto.ca
Associate Director: S. Moghaddam Email: safieh.moghaddam@utoronto.ca
For curriculum inquiries please contact the department's Program Coordinator S. Ramrattan Email: sean.ramrattan@utoronto.ca

Linguistics is the scientific study of human language. It encompasses theories of linguistic structure in all domains: speech sounds (phonetics and phonology), words (morphology), sentences (syntax), meaning (semantics), and texts or conversations (discourse). Other subfields of linguistics include psycholinguistics (language acquisition, language processing, learning how to read, and associated disorders, as well as the neural architecture underlying all of these): sociolinguistics (language variation according to region, gender, class, etc., as well as the social functions of language); historical linguistics (how languages change across time, and why); and applied linguistics (e.g. second language learning, translation, clinical linguistics).

The Major Program in Linguistics is designed to help students prepare for entry into professional programs in areas with a significant language component, such as speech/language pathology, education, and language teaching. Students with a particular interest in psycholinguistics can enrol in the Specialist Program in Psycholinguistics which provides excellent preparation for entry into postgraduate programs in speech/language pathology, psycholinguistics and education. The Specialist Program in Linguistics is designed for students who are interested in a more intensive study of linguistics or entry into a graduate program in linguistics.

Guidelines for first-year course selection
Students intending to complete the Specialist Program in Psycholinguistics should include the following in their first-year course selection: LINA01H3, LINA02H3, PSYA01H3, PSYA02H3. Students intending to complete the Specialist or Major Program in Linguistics should include LINA01H3 and LINA02H3 and should consider including a language course. Students intending to complete the Minor Program in Linguistics should include LINA01H3 and LINA02H3.

Students considering graduate studies in Speech-Language Pathology should consider taking 1.0 credit in Physiology during their undergraduate studies or consult the admissions requirements for any graduate program in Speech-Language Pathology they may be interested in to build

recommended courses into their undergraduate studies. Students should also be aware that completing these requirements will require undertaking all necessary prerequisites. Please contact the Department of Language Studies Program Coordinator at sean.ramrattan@utoronto.ca for further guidance.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Linguistics Programs

SPECIALIST PROGRAM IN LINGUISTICS (ARTS)

For curriculum inquiries, contact the department's Undergraduate Assistant: cfl-ua@utsc.utoronto.ca

Program Requirements
Students must complete 12.0 credits, including 4.0 credits at the C- and D-level of which 1.0 credit must be at the D-level as follows:

1. All of the following:
LINA01H3 Introduction to Linguistics
LINA02H3 Applications of Linguistics
LINB04H3 Phonology I
LINB06H3 Syntax I
LINB09H3 Phonetics: The Study of Speech Sounds
LINB10H3 Morphology
LINC02H3 Phonology II
LINC11H3 Syntax II
LINC12H3 Semantics: The Study of Meaning

2. 4.5 credits from the following, including at least 1.5 credits from Group A and at least 1.5 credits from Group B:
Group A
LINB18H3 English Grammar
LINB20H3 Sociolinguistics
LINB60H3 Comparative Study of English and Chinese
LINB62H3 Structure of American Sign Language
LINC13H3 Language Diversity and Universals
LINC28H3 Language and Gender
LINC47H3 Pidgin and Creole Languages
LINC61H3 Structure of a Language
LIND09H3 Phonetic Analysis
LIND29H3 Linguistic Research Methodologies

Group B
LINB19H3 Computers in Linguistics
LINB29H3 Quantitative Methods in Linguistics
PLIC24H3 First Language Acquisition

PLIC25H3 Second Language Acquisition
PLIC55H3 Psycholinguistics
PLIC75H3 Language and the Brain
PLID34H3 The Psycholinguistics of Reading
PLID44H3 Acquisition of the Mental Lexicon
PLID50H3 Speech Perception
PLID74H3 Language and Aging

3. 1.0 credit of language study in one or more languages, which may include LINB60H3 or LINB62H3 or LINC61H3; ECT, FRE or LGG courses or language courses at another campus.

4. A further 2.0 credits in any LIN, PLI, JAL or JLP courses.

SPECIALIST (CO-OPERATIVE) PROGRAM IN LINGUISTICS (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Linguistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Linguistics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including LINA01H3 and LINA02H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Linguistics.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Linguistics and have completed at least 9.0 credits, including LINB06H3 and LINB09H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op

specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN PSYCHOLINGUISTICS (ARTS)

For curriculum inquiries, contact the department's Undergraduate Assistant: cfl-ua@utsc.utoronto.ca

Program Requirements
Students must complete 12.5 credits, including 4.0 credits at the C- and D-levels of which 1.0 credit must be at the D-level as follows:

1. 5.0 credits as follows:
LINA01H3 Introduction to Linguistics
LINA02H3 Applications of Linguistics
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology
LINB04H3 Phonology I
LINB06H3 Syntax I
LINB09H3 Phonetics: The Study of Speech Sounds
LINB29H3 Quantitative Methods in Linguistics
PLIC24H3 First Language Acquisition
PLIC55H3 Psycholinguistics

2. 1.5 credits from the following:
LINB10H3 Morphology
LINB20H3 Sociolinguistics
LINC02H3 Phonology II
LINC11H3 Syntax II
LINC12H3 Semantics: The Study of Meaning

3. 2.5 credits from the following:
LINB62H3 Structure of American Sign Language
LIND09H3 Phonetic Analysis
PLIC25H3 Second Language Acquisition
PLID34H3 Psycholinguistics of Reading
PLID44H3 Acquisition of the Mental Lexicon
PLID50H3 Speech Perception
PLID74H3 Language and Aging

4. 1.5 credits from the following:
BIOA11H3 Introduction to the Biology of Humans
BIOB35H3 Essentials of Human Physiology
LINB19H3 Computers in Linguistics
PLIC54H3 Speech Physiology and Speech Disorders in Children and Adults
PLIC75H3 Language and the Brain
PLID56H3 Special Topics in Language Disorders in Children
PSYB20H3 Introduction to Developmental Psychology
[PSYB51H3 Introduction to Perception *or* PSYB57H3 Introduction to Cognitive Psychology]
(PSYB65H3) Human Brain and Behaviour
PSYC21H3 Adulthood and Aging

5. 2.0 further credits in LIN and/or PLI

Note: students interested in pursuing Speech Language Pathology as an option for graduate studies should complete BIOA11H3 and BIOB35H3 (of component 4 of the program requirements) in order to satisfy a portion of the physiology requirement necessary for admissions.

SPECIALIST (CO-OPERATIVE) PROGRAM IN PSYCHOLINGUISTICS (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Psycholinguistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Psycholinguistics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including LINA01H3 and LINA02H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Psycholinguistics.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Psycholinguistics and have completed at least 7.0 credits, including LINB06H3 and LINB09H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer

semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN LINGUISTICS (ARTS)

For curriculum inquiries, contact the department's Undergraduate Assistant: cfl-ua@utsc.utoronto.ca

Program Requirements
Students must complete 8.0 credits, as follows:

1. 2.5 credits as follows:
LINA01H3 Introduction to Linguistics
LINA02H3 Applications of Linguistics
LINB04H3 Phonology I
LINB06H3 Syntax I
LINB09H3 Phonetics: The Study of Speech Sounds

2. 0.5 credit from the following:
LINB10H3 Morphology
LINB20H3 Sociolinguistics
LINC12H3 Semantics: The Study of Meaning

3. 4.0 further credits in LIN and/or PLI, of which at least 2.0 credits must be at the C- or D-level.

4. 1.0 credit of language study in one or more languages, which may include ECT, FRE, or LGG courses; language courses at another campus; LINB60H3 or LINB62H3 or LINC61H3.

MAJOR (CO-OPERATIVE) PROGRAM IN LINGUISTICS (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Psycholinguistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Psycholinguistics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including LINA01H3 and LINA02H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Linguistics.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Linguistics and have completed at least 9.0 credits, including LINB06H3 and LINB09H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer

semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN LINGUISTICS (ARTS)

For curriculum inquiries, contact the department's Undergraduate Assistant: cfl-ua@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits.

1. 1.0 credit as follows:
LINA01H3 Introduction to Linguistics
LINA02H3 Applications of Linguistics

2. 1.0 credit from the following:
LINB04H3 Phonology I
LINB06H3 Syntax I
LINB09H3 Phonetics: The Study of Speech Sounds
LINB10H3 Morphology

3. 2.0 further credits in LIN and/or PLI of which at least 1.0 credit must be at the C- or D-level.

Linguistics Courses

LINA01H3 - Introduction to Linguistics

An introduction to the various methods and theories of analyzing speech sounds, words, sentences and meanings, both in particular languages and language in general.

Exclusion: (LIN100Y), LIN101H, LIN102H
Breadth Requirements: Arts, Literature & Language

LINA02H3 - Applications of Linguistics

Application of the concepts and methods acquired in LINA01H3 to the study of, and research into, language history and language change; the acquisition of languages; language disorders; the psychology of language; language and in the brain; and the sociology of language.

Prerequisite: LINA01H3
Exclusion: (LIN100Y), LIN101H, LIN102H
Breadth Requirements: Arts, Literature & Language

LINB04H3 - Phonology I

Practice in analysis of sound patterns in a broad variety of languages.

Prerequisite: LINB09H3
Exclusion: LIN229H
Breadth Requirements: Social & Behavioural Sciences

LINB06H3 - Syntax I

Practice in analysis of sentence structure in a broad variety of languages.

Prerequisite: LINA01H3
Exclusion: LIN232H
Breadth Requirements: History, Philosophy & Cultural Studies

LINB09H3 - Phonetics: The Study of Speech Sounds

An examination of physiological and acoustic bases of speech.

Prerequisite: LINA01H3
Exclusion: LIN228H
Breadth Requirements: Natural Sciences

LINB10H3 - Morphology

Core issues in morphological theory, including properties of the lexicon and combinatorial principles, governing word formation as they apply to French and English words.

Prerequisite: LINA01H3
Corequisite: LINB04H3 and LINB06H3
Exclusion: LIN231H, LIN333H, (LINB05H3), (LINC05H3) FRE387H, (FREC45H3)
Breadth Requirements: Social & Behavioural Sciences

LINB18H3 - English Grammar

Description and analysis of the structure of English, including the sentence and word structure systems, with emphasis on those distinctive and characteristic features most of interest to teachers and students of the language.

Exclusion: LIN204H
Breadth Requirements: Arts, Literature & Language

LINB19H3 - Computers in Linguistics

The course will provide an introduction to the use of computer theory and methods to advance the understanding of computational aspects of linguistics. It will provide basic training in computer programming techniques employed in linguistics such as corpus mining, modifying speech stimuli, experimental testing, and data analysis.

Prerequisite: LINA02H3
Exclusion: Any computer science course except [CSCA20H3, PSYC03H3]
Breadth Requirements: Quantitative Reasoning
Note: Priority will be given to students in Specialist/Specialist Co-op programs in Linguistics or Psycholinguistics, or Major/Major Co-op programs in Linguistics. Students in the Minor program in Linguistics, followed by students in other programs, will be admitted as space permits.

LINB20H3 - Sociolinguistics

The study of the relationship between language and society. Topics include: how language reflects and constructs aspects of social identity such as age, gender, socioeconomic class and ethnicity; ways in which social context affects speakers' use of language; and social factors which cause the spread or death of languages.

Prerequisite: LINA02H3
Exclusion: (LINB21H3), (LINB22H3), LIN251H, LIN256H, FREC48H3
Breadth Requirements: Social & Behavioural Sciences

LINB29H3 - Quantitative Methods in Linguistics

An introduction to experimental design and statistical analysis for linguists. Topics include both univariate and multivariate approaches to data analysis for acoustic phonetics, speech perception, psycholinguistics, language acquisition, language disorders, and sociolinguistics.

Prerequisite: LINA02H3
Exclusion: LIN305H, (PLIC65H3), PSYB07H3, STAB23H3
Recommended Preparation: LINB19H3
Breadth Requirements: Quantitative Reasoning

LINB60H3 - Comparative Study of English and Chinese

This course is an investigation into the lexicon, morphology, syntax, semantics, discourse and writing styles in Chinese and English. Students will use the tools of linguistic analysis to examine the structural and related key properties of the two languages. Emphasis is on the comparison of English and Chinese sentences encountered during translation practice.

Prerequisite: LINB06H3
Exclusion: LGGA60H3, LGGA61H3, (LINC60H3)
Breadth Requirements: Arts, Literature & Language
Note: Students are expected to be proficient in Chinese and English.

LINB62H3 - Structure of American Sign Language

An introduction to the structure of American Sign Language (ASL): Comparison to spoken languages and other signed languages, together with practice in using ASL for basic communication.

Prerequisite: LINA01H3 and LINA02H3
Exclusion: (LINA10H3)
Enrolment Limits: 35
Breadth Requirements: Social & Behavioural Sciences

LINB98H3 - Supervised Introductory Research in Linguistics

This course provides an introduction to, and experience in, ongoing theoretical and empirical research in any field of linguistics. Supervision of the work is arranged by mutual agreement between student and instructor.

Prerequisite: 4.0 credits including [LINA01H3 or LINA02H3], and a CGPA of 3.3
Exclusion: PSYB90H3, ROP299Y
Recommended Preparation: 0.5 credit at the B-level in LIN or PLI courses
Enrolment Limits: Enrolment is limited based on the research opportunities available with each faculty member and the interests of the students.
Breadth Requirements: Social & Behavioural Sciences
Note: Students must complete and submit a permission form available from the Registrar's Office, along with an outline of work to be performed, signed by the intended supervisor. Priority will be given to students enrolled in the Specialist/Specialist Co-op programs in Linguistics or Psycholinguistics, and the Major/Major Co-op programs in Linguistics.

LINC02H3 - Phonology II

Basic issues in phonological theory. This course assumes familiarity with phonetic principles, as discussed in LINB09H3, and with phonological problem-solving methods, as discussed in LINB04H3.

Prerequisite: LINB04H3 and LINB09H3
Exclusion: LIN322H
Breadth Requirements: Social & Behavioural Sciences

LINC10H3 - Linguistic Analysis and Argumentation

In this course, students will develop skills that are needed in academic writing by reading and analyzing articles regarding classic and current issues in Linguistics. They will also learn skills including summarizing, paraphrasing, making logical arguments, and critically evaluating linguistic texts. They will also learn how to make references in their wiring using the APA style.

Prerequisite: LINA02H3 and LINB04H3 and LINB06H3 and LINB10H3
Exclusion: LIN410H5, LIN481H1
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in any Linguistics programs.

LINC11H3 - Syntax II

Core issues in syntactic theory, with emphasis on universal principles and syntactic variation between French and English.
Same as FREC46H3

Prerequisite: LINB06H3 or FREB45H3
Exclusion: LIN232H, LIN331H, FRE378H, FREC46H3
Breadth Requirements: History, Philosophy & Cultural Studies

LINC12H3 - Semantics: The Study of Meaning

An introduction to the role of meaning in the structure, function, and use of language. Approaches to the notion of meaning as applied to English and French data will be examined. Same as FREC12H3.

Prerequisite: LINA01H3 or [FREB44H3 and FREB45H3]
Exclusion: FREC12H3, FRE386H, LIN241H, LIN247H, LIN341H, (FREC49H3), (FRED49H3)
Breadth Requirements: History, Philosophy & Cultural Studies

LINC13H3 - Language Diversity and Universals

An introduction to linguistic typology with special emphasis on cross-linguistic variation and uniformity in phonology, morphology, and syntax.

Prerequisite: LINB04H3 and LINB06H3 and LINB10H3
Exclusion: LIN306H, (LINB13H3)
Breadth Requirements: Arts, Literature & Language

LINC28H3 - Language and Gender

An introduction to the research on differences between women and men in how they use language and how they behave in conversational interaction, together with an examination of the role of language in reflecting and perpetuating cultural attitudes towards gender.
Same as WSTC28H3

Prerequisite: LINA01H3 and one full credit at the B-level in ANT, LIN, SOC or WST
Exclusion: JAL355H, WSTC28H3
Breadth Requirements: Social & Behavioural Sciences

LINC47H3 - Pidgin and Creole Languages

A study of pidgin and Creole languages worldwide. The course will introduce students to the often complex grammars of these languages and examine French, English, Spanish, and Dutch-based Creoles, as well as regional varieties. It will include some socio-historical discussion.
Same as FREC47H3.

Prerequisite: [LINA01H3 and LINA02H3] or [FREB44H3 and FREB45H3]
Exclusion: FREC47H3, LIN366H
Breadth Requirements: Arts, Literature & Language

LINC61H3 - Structure of a Language

An introduction to the phonetics, phonology, word-formation rules, syntax, and script of a featured language other than English or French. Students will use the tools of linguistic analysis learned in prior courses to examine the structural properties of this language. No prior knowledge of the language is necessary.

Prerequisite: LINB04H3 and LINB06H3
Exclusion: LIN409H
Breadth Requirements: Arts, Literature & Language

LIND01H3 - Independent Study in Linguistics

Independent study and research in an area of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Undergraduate Assistant for Linguistics for further information.

Prerequisite: At least 1.0 credit at the C-level in LIN courses; and a CGPA of 3.3; and permission of the supervising instructor.
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

LIND02H3 - Independent Study in Linguistics

Independent study and research in an area of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Undergraduate Assistant for Linguistics for further information.

Prerequisite: At least 1.0 credit at the C-level in LIN courses; and a CGPA of 3.3; and permission of the supervising instructor.
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

LIND03H3 - Independent Study in Linguistics

Independent study and research in an area of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Program Supervisor for Linguistics.

Prerequisite: At least 1.0 credit at the C-level in LIN courses; and a CGPA of 3.3; and permission of the supervising instructor.
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

LIND07Y3 - Independent Study in Linguistics

A reading and research independent study course on a topic of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Undergraduate Assistant for Linguistics for further information.

Prerequisite: At least 1.0 credit at the C-level in LIN courses; and a CGPA of 3.3; and permission of the supervising instructor.
Exclusion: LIN495Y
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

LIND09H3 - Phonetic Analysis

Practical application of phonetic theory with special emphasis on instrumental and experimental techniques.

Prerequisite: LINB09H3 and LINB29H3
Exclusion: LIN423H, (LINC09H3)
Breadth Requirements: Natural Sciences

LIND29H3 - Linguistic Research Methodologies

This course focuses on research methodologies (interviews, corpus collection, surveys, ethnography, etc.). Students conduct individual research studies in real-life contexts.

Prerequisite: LINB04H3 and LINB06H3 and LINB10H3
Breadth Requirements: Arts, Literature & Language
Note: Topics will vary each time the course is offered. Please check with the department's Undergraduate Assistant or on the Web Timetable on the Office of the Registrar website for details regarding the proposed subject matter.

LIND46H3 - Field Methods in Linguistics

Practice in language analysis based on elicited data from second language learners and foreign speakers. Emphasis is put on procedures and techniques of data collection, as well as theoretical implications arising from data analysis.

Prerequisite: [FREB44H3 and FREC46H3] or LINB10H3
Exclusion: (FRED46H3), JAL401H
Recommended Preparation: LINC02H3 and LINC11H3
Breadth Requirements: Arts, Literature & Language

PLIC24H3 - First Language Acquisition

Descriptions of children's pronunciation, vocabulary and grammar at various stages of learning their first language. Theories of the linguistic knowledge and cognitive processes that underlie and develop along with language learning.

Prerequisite: LINB06H3 and LINB09H3
Exclusion: JLP315H
Breadth Requirements: Natural Sciences

PLIC25H3 - Second Language Acquisition

The stages adults and children go through when learning a second language. The course examines linguistic, cognitive, neurological, social, and personality variables that influence second language acquisition.

Prerequisite: [LINB06H3 and LINB09H3] or [FREB44H3 and FREB45H3]
Exclusion: (LINB25H3), (PLIB25H3)
Breadth Requirements: Natural Sciences

PLIC54H3 - Speech Physiology and Speech Disorders in Children and Adults

An introduction to the physics of sound and the physiology of speech perception and production for the purpose of assessing and treating speech disorders in children and adults. Topics will include acoustic, perceptual, kinematic, and aerodynamic methods of assessing speech disorders as well as current computer applications that facilitate assessment.

Prerequisite: LINB09H3
Breadth Requirements: Natural Sciences

PLIC55H3 - Psycholinguistics

Experimental evidence for theories of how humans produce and understand language, and of how language is represented in the mind. Topics include speech perception, word retrieval, use of grammar in comprehension and production, discourse comprehension, and the role of memory systems in language processing.

Prerequisite: LINB06H3 or LINB09H3
Corequisite: LINB29H3
Exclusion: JLP374H
Breadth Requirements: Natural Sciences

PLIC75H3 - Language and the Brain

An introduction to neurolinguistics, emphasizing aphasias and healthy individuals. We will introduce recent results understanding how the brain supports language comprehension and production. Students will be equipped with necessary tools to critically evaluate the primary literature. No prior knowledge of brain imaging is necessary.

Prerequisite: PLIC55H3
Breadth Requirements: Social & Behavioural Sciences

PLID01H3 - Independent Study in Psycholinguistics

Independent study and research in an area of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Undergraduate Assistant for Psycholinguistics for further information.

Prerequisite: At least 1.0 credit at the C-level in PLI courses; and a CGPA of 3.3; and permission of the supervising instructor.
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

PLID02H3 - Independent Study in Psycholinguistics

Independent study and research in an area of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Undergraduate Assistant for Psycholinguistics for further information.

Prerequisite: At least 1.0 credit at the C-level in PLI courses; and a CGPA of 3.3; and permission of the supervising instructor.
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

PLID03H3 - Independent Study in Psycholinguistics

Independent study and research in an area of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Undergraduate Assistant for Psycholinguistics for further information.

Prerequisite: At least 1.0 credit at the C-level in PLI courses; and a CGPA of 3.3; and permission of the supervising instructor.
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

PLID07Y3 - Independent Study in Psycholinguistics

A reading and research independent study course on a topic of interest to the student. Students must obtain consent from a supervising instructor before registering. Interested students should contact the Undergraduate Assistant for Psycholinguistics for further information.

Prerequisite: At least 1.0 credit at the C-level in PLI courses; and a CGPA of 3.3; and permission of the supervising instructor.
Exclusion: LIN495Y
Note: Students must complete and submit a Supervised Study Form available at the Office of the Registrar.

PLID34H3 - The Psycholinguistics of Reading

An examination of linguistic and psycholinguistic issues pertinent to reading, as well as the role of a language's writing system and orthography in the learning process.

Prerequisite: [LINA01H3 or [FREB44H3 and FREB45H3]] and [PLIC24H3 or (PLIB25H3)]
Exclusion: (LINC34H3), (PLIC34H3)
Breadth Requirements: Natural Sciences

PLID44H3 - Acquisition of the Mental Lexicon

An examination of L1 (first language) and L2 (second language) lexical (vocabulary) acquisition. Topics include: the interaction between linguistic and cognitive development; the role of linguistic/non-linguistic input; the developing L2 lexicon and its links with the L1 lexicon; the interface between lexical and syntactic acquisition within psycholinguistic and linguistic frameworks.

Prerequisite: PLIC24H3
Breadth Requirements: Natural Sciences

PLID50H3 - Speech Perception

An examination of the acoustics and perception of human speech. We will explore how humans cope with the variation found in the auditory signal, how infants acquire their native language sound categories, the mechanisms underlying speech perception and how the brain encodes and represents speech sounds. An emphasis will be placed on hands-on experience with experimental data analysis.

Prerequisite: LINB29H3 and PLIC55H3
Exclusion: (PLIC15H3)
Breadth Requirements: Social & Behavioural Sciences

PLID56H3 - Special Topics in Language Disorders in Children

An in-depth investigation of a particular type of language or communication disorder, for example, impairment due to hearing loss, Down syndrome, or autism. Topics will include: linguistic and non-linguistic differences between children with the disorder and typically-developing children; diagnostic tools and treatments for the disorder; and its genetics and neurobiology.

Prerequisite: PLIC24H3 or (PLID55H3)
Breadth Requirements: Natural Sciences

PLID74H3 - Language and Aging

A seminar-style course on language and communication in healthy and language-impaired older adults. The course covers normal age-related neurological, cognitive, and perceptual changes impacting language, as well as language impairments resulting from dementia, strokes, etc. Also discussed are the positive aspects of aging, bilingualism, ecologically valid experimentation, and clinical interventions.

Prerequisite: PLIC24H3 and PLIC55H3
Breadth Requirements: Natural Sciences

Management

Faculty List

- P. Aggarwal, B.A., M.B.A. (India), M.B.A., Ph.D. (Chicago), Professor
- S.W. Ahmed, B.Com., M.A. (Sind), M.B.A. (Concordia), Associate Professor, Teaching Stream
- I. Averbakh, M.Sc., Ph.D. (Moscow Institute of Physics & Technology), Professor
- S. Borins, B.A. (Harvard), M.P.P. (Kennedy School of Gov't.), Ph.D. (Harvard), Professor
- C. Bovaird, B.A. (Queen's), M.Sc. (Stirling), M.B.A. (Western), Associate Professor, Teaching Stream
- C. Chan, B.A. (Huron), B.A. (Western), M.Sc., Ph.D. (Pennsylvania), Assistant Professor
- D. Chau, B.Com. (Toronto), M.B.A. (McMaster), Ph.D. (HKUST), CPA, CMA., Associate Professor, Teaching Stream
- L. H. Chen, M.S.Ed. (U Penn), M.B.A. (Toronto), Ph.D. (Toronto), FCPA, FCGA., Associate Professor, Teaching Stream
- A.A. Cire, B.Sc., M.Sc.(University of Campinas), M.Sc., Ph.D. (Carnegie Mellon University), Assistant Professor
- B. Connelly, B.A. (Emory), Ph.D. (Minnesota), Associate Professor
- S. L. Daga, B.A. (Waterloo), M. Ed. (Toronto), CPA, CA (CICA) CPA (CPA Canada), Associate Professor, Teaching Stream
- T. Dewan, B.Sc., M.B.A. (Panjab), Ph.D. (Texas), Associate Professor, Teaching Stream
- S. D. Hansen, B.A. (Laurentian), M.A. (Wilfrid Laurier), Ph.D. (Waterloo), Associate Professor
- L. Harvey, B.B.A. (Toronto), MAcc (Brock). CPA, CA, Associate Professor, Teaching Stream
- J. Heathcote, B.A., M.A., Ph.D. (Western), Associate Professor, Teaching Stream
- M. Khapko, B.A., M.A., Ph.D. (Stockholm School of Economics), Assistant Professor
- D. Kong, B.B.A. (Hawaii), M.B.A. (York), CPA, CMA., Assistant Professor, Teaching Stream
- H. Laurence, B.A. (Amherst), M.A., Ph.D. (McGill), LLB (Osgoode), Associate Professor, Teaching Stream
- N.Li, B.A. (Zhejiang), M.A. (Peking), M.B.A., Ph.D. (Chicago), Assistant Professor
- S. Maglio III, B.A., Stanford University (USA), Ph.D. (New York), Associate Professor
- C. Martineau, B.Com. (Concordia), M.Sc., (HEC Montreal), Ph.D., (UBC), Assistant Professor
- J. McCarthy, B.A., M.A., Ph.D. (Western), Professor
- K. McElheran, B.A. Albion College (USA), Ph.D. (Northwestern University), Assistant Professor
- V. Quan, B.A.Sc., M.A.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- G. Quan Fun, B.A. (Toronto), M.B.A. (Laurentian), CPA, CA, CMA, CGA., Professor, Teaching Stream
- P. Radhakrishnan, B.A. (Windsor), M.A., Ph.D. (Illinois), Associate Professor, Teaching Stream
- A. Saks, B.A. (Western), M.A.Sc. (Waterloo), Ph.D. (Toronto), Professor
- A. Shah, B.A. (Dartmouth College), Ph.D. (Duke University), Assistant Professor
- R. Shalev, LLB. (Hebrew University), E.M.BA. (Northwestern University & Tel-Aviv University Economics), M.Phil., Ph.D. (Columbia Business School), Associate Professor
- A. Stark, B.A. (U.B.C.), M.Sc. (London), M.A., Ph.D. (Harvard), Professor
- J. Tong, B.Sc. (Fudan University), M.Sc. (Columbia University), Ph.D. (University of Minnesota)
- J. Trougakos, B.S., M.B.A. (Oklahoma State), Ph.D. (Purdue), Associate Professor
- J. Wei, B.Sc. (Harbin Inst. (China)), M.B.A. (York), Ph.D. (Toronto), Professor
- D. Zweig, B.A., M.A.Sc., Ph.D. (Waterloo), Associate Professor

Chair*:* A. Franco

The design of the curriculum in Management is guided by our mission statement, which follows: "The mission of the Department of Management at the University of Toronto Scarborough is to provide our students with the best pre-professional undergraduate management education in Canada. With special emphasis on our Co-op model of education, we aim to provide a coherent set of learning experiences that simultaneously teaches management skills and develops the capacity to think analytically about managerial, economic and societal problems and opportunities. Our faculty engages in nationally and internationally recognized research, which advances the frontiers of knowledge, serves the interests of our community, and brings new insights to our students. We will improve our students' current and future experiences by building and maintaining close links with private and public sector organizations, by helping students to bridge the gap between education and employment, and by providing a continuing and lively connection among current and former students of the Department."

The University of Toronto Scarborough offers the Bachelor of Business Administration (B.B.A.) degree to students who complete one of the Specialist/Specialist (Co-op) programs in Management. The Department of Management also offers a Certificate Program in Business. For more information, see the 6A.4 Certificate section of the *Calendar.*

Management Programs
We admit 500 students each year to the Specialist and Specialist (Co-op) programs in Management.
1. Most students are admitted directly from high school.
2. Also, a small number of students may be admitted at the end of the first year. The first round of admissions takes place at the end of the Winter session of their first year. The second round of admissions takes place at the end of the following Summer session. There are a limited number of places in the B.B.A. available to students beyond these two application periods. Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits are not eligible for admission to the programs. Since the number of students accepted in this category is very limited, students who are denied admission after the first year (in the periods at the end of the Winter session and the end of the Summer session in the first year) are strongly advised to contact the Academic Advising & Career Centre, to explore alternative program options.

Students must request only ONE Management program. Students who request a Management Co-op Subject POSt are automatically considered for Management Non-Co-op programs.

Students enrolled in a B.B.A. program offered by the Department of Management are not permitted to enrol in either the Major Program in Economics for Management Studies or the Minor Program in Economics for Management Studies.

Management Courses
There are enrolment limits on most Management courses including those offered in the Summer session.

Prerequisites
Students are responsible for ensuring that they have the prerequisites for all Management courses. Students who register for courses for which they do not have the appropriate prerequisites are denied access to those courses. A Standing Deferred (SDF) in a course does not meet the prerequisite for the subsequent course.

Overall course load limit for B.B.A. students
Students may take a maximum of 3.0 credits per semester. On occasion, B.B.A. students who have

completed at least 12.0 credits and who have a CGPA of at least 3.5 may be permitted into an additional 0.5 credit course. Requests to add an additional course must be made in writing to the Management Academic Director at mgmtss@utsc.utoronto.ca. This must be done after the waitlist period has ended and before the last day to add courses for the session (see the Academic Dates available on the Office of the Registrar website). Students must provide an academic rationale for the request and include their name, student number, the course code, and the lecture section requested.

Notes:
1. Approval of a request to add a course outside Management and Economics does not guarantee a place in the course. Requests from students who do not meet the above criteria will not be considered.
2. UTSC Management courses are not open to students from other campuses. Similarly, St. George Rotman Commerce courses and UTM Management courses are not open to UTSC students.

Double Degrees: B.B.A./B.Sc.
The Department of Management, in partnership with the Department of Computer and Mathematical Sciences, offers the following Double Degree programs:

- Double Degree: B.B.A., Specialist Program in Management and Finance/Honours B.Sc., Specialist Program in Statistics, Quantitative Finance Stream
- Double Degree: B.B.A., Specialist (Co-op) Program in Management and Finance/Honours B.Sc., Specialist (Co-op) Program in Statistics, Quantitative Finance Stream

The Double Degree programs create an accelerated pathway for students who would otherwise have to complete two separate Specialist programs. They explicitly focus on finance and quantitative methods, providing students with a thorough education in both the business and the quantitative aspects of the financial industry. The Double Degree programs take advantage of existing synergies to allow students to complete both undergraduate programs and degrees within five years without compromising their learning experience. Students will complete a total of 25.0 credits and, for those enrolled in the Double Degree (Specialist Co-op programs), students must also complete three mandatory Co-op work terms. For more information, including Admission and Program requirements, see the Double Degree Programs section of the *Calendar*.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Management Programs

COMBINED DEGREE PROGRAMS, BACHELOR OF BUSINESS ADMINISTRATION / MASTER OF ACCOUNTING AND FINANCE

The Combined Degree Programs for UTSC Bachelor of Business Administration (BBA) with the Master of Accounting and Finance (MAccFin) offered by the Graduate Department of Management allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 2 of their undergraduate studies, and be considered, for admission to the MAccFin program. They are designed for students with no prior work experience

who are interested in pursuing careers in account management, wealth management, consultancy, and entrepreneurship.

Contact Information:
Email: Maccfin@utsc.utoronto.ca

The Combined Degree Programs options are:

- Management and Accounting (Specialist), Bachelor of Business Administration/ Master of Accounting and Finance
- Management and Accounting (Specialist Co-op), Bachelor of Business Administration/ Master of Accounting and Finance

Application Process:

- Applicants must apply to the Bachelor of Business Administration (BBA) program, the MAccFin program, and the CDP.
- Qualified student in Year 2 of their BBA degree program apply to the MAccFin program and their chosen CDP through the SGS Online Admission Application system:
    - Students may apply after they have completed up to 10.0 credits; however, students who have completed more than 10.0 credits may not be considered for admission to the Program.
- Applicants must:
    - Complete a standardized application form with customized fields through the SGS Online Application System;
    - Provide official transcripts;
    - Provide at least two reference letters; and
    - Provide a resume.
- Applicants will be scored on each admission requirement and then ranked based on their overall score. Top ranked applicants will be invited for an interview.

Minimum Admission Requirements:
Admission to the program is extremely competitive, and all aspects of the application are considered. Meeting minimum grade requirements does not guarantee admission. To be considered for **conditional admission to the MAccFin program and the selected CDP**, applicants must meet the following admission requirements:

- Be admitted to the BBA degree and one of the Management and Accounting Specialist programs at UTSC.
- Meet the minimum admission requirements of the School of Graduate Studies and the MAccFin program.
- Be enrolled full-time and in good standing in the BBA program:
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Complete all of the requirements of the Management and Accounting Specialist programs, with the following modifications:
    - MGEC08H3 replaces "1.0 credit in C-level Economics courses" (see component 3 of the program requirements);
    - students are exempted from MGEB12H3 and MGAD70H3;
    - Students must complete MGFD10H3 (0.5 credit in Finance courses);

- in the Summer terms of Year 3 of their undergraduate studies, students must complete 1.0 FCE in graduate courses as described below. The 1.0 FCE in graduate courses will be graded as graduate courses, as per the *University Assessment and Grading Practices Policy*, 2012 (section B.4.1.2). The 1.0 FCE in graduate courses will count towards both the BBA degree and the MAccFin program and degree:
  - MAF 2001H
  - MAF 2002H
- Students must complete all of the following advanced accounting courses, which are necessary for CPA designation: MGAD20H3, MGAD40H3, MGAD45H3, MGAD50H3, MGAD65H3.

Program Requirements and Path to Completion:

- Year 4: BBA degree requirements
  - students must complete all BBA program requirements, with the modifications described above, and degree requirements;
  - students are expected to carrry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year; where necessary, exceptions will be made for students in Co-op programs.
- Session 1: MAccFin program and degree requirements, with the following modifications:
  - students who have successfully completed MAF 2001H as part of their BBA requirements, do not need to repeat it;
  - students who have successfully completed MAF 2002H as part of their BBA requirements, do not need to repeat it.
- Session 2-4: remaining MAccFin program and degree requirements.

DOUBLE DEGREE: BBA, SPECIALIST PROGRAM IN MANAGEMENT AND FINANCE / HONOURS BSc, SPECIALIST PROGRAM IN STATISTICS, QUANTITATIVE FINANCE STREAM

Academic Directors:
S. Ahmed Email: mgmtss@utsc.utoronto.ca (BBA)
S. Damouras Email: sdamouras@utsc.utoronto.ca (BSc)

This Double Degree program combines the Specialist Program in Management and Finance and the Specialist Program in Statistics, Quantitative Finance stream. Students completing the Double Degree program will qualify to graduate with two-degree designations – the Bachelor of Business Administration (BBA) and the Honours Bachelor of Science (BSc), assuming all other degree criteria are met.

Enrolment Requirements

Enrolment in this Double Degree program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English, Grade 12 Advanced Functions, and Grade 12 Calculus & Vectors. Applicants must also submit a Supplementary Application Form.

Course Guidelines for Students Admitted to the Double Degree Program Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3,

MGEA06H3, MATA22H3, MATA30H3, MATA36H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students already pursuing a BBA program and degree may apply to enter the Double Degree program. The application can be made before the end of the Winter semester and/or before the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request. Students considering switching to the Double Degree program should consult with the program supervisors as soon as possible.

The minimum Cumulative Grade Point Average (CGPA) for admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed at least 4.5 credits (none of which can be designated as CR/NCR), including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3, MATA22H3, MATA30H3, and MATA36H3. Students who have taken the sequence [MATA32H3 and MATA33H3] instead of [MATA30H3 and MATA36H3] can still apply to the Double Degree program if they are taking or plan to take MATA36H3 at the time of application and could receive admission conditional on their grade in MATA36H3 being above a threshold to be specified each year. Note that MATA36H3 will be treated as an Extra (EXT) course in this case.

Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be admitted to the Double Degree program. For those who apply with more than 4.5 credits, their CGPA at the time of application will be calculated with more weight assigned to the required courses listed under the 4.5 credits.

CGPA Requirement to Remain in the Double Degree (Specialist Programs)
In order to remain in the Double Degree, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.1 (but not below 2.0) will have the opportunity to move to either the non Co-op BBA Specialist Program in Management and Finance, or the non Co-op BSc Specialist Program in Statistics, Quantitative Finance stream. If they choose to stay in the Double Degree program and their CGPA falls below 2.0, they will be removed from the Double Degree program. Students removed from the program for this reason may request re-instatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Double Degree program requires the completion of 25.0 credits. 22.0 credits are core program requirements as listed below, and 3.0 further credits are required to complete degree requirements.

1. Communications requirement (0.5 credit)
MGTA35H3 Management Communications

2. Management requirements (5.5 credits)
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGHC02H3 Management Skills
MGMA01H3 Principles of Marketing
MGMB01H3 Marketing Management

MGOC10H3 Analysis for Decision-Making
MGOC20H3 Operations Management: A Mathematical Approach
MGTA05H3 Foundations of Business Management or [(MGTA01H3) and (MGTA02H3)]

3. Science requirements (9.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
STAB52H3 An Introduction to Probability
STAB57H3 An Introduction to Statistics
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis
STAD37H3 Multivariate Analysis
STAD57H3 Time Series Analysis

4. Economics requirements (2.0 credits)
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach

5. Finance requirements (3.0 credits)
MGFB10H3 Principles of Finance
MGFC10H3 Intermediate Finance
[MGFC30H3 Introduction to Derivatives Markets or STAB41H3 Financial Derivatives]
MGFD10H3 Investments
STAC70H3 Statistics and Finance I
STAD70H3 Statistics and Finance II

6. At least four courses (2.0 credits) from:
MGEC71H3 Money and Banking
MGFC20H3 Personal Financial Management
MGFC50H3 International Financial Management
MGFC60H3 Financial Statement Analysis & Security Valuation
MGFD15H3 Special Topics in Finance: Private Equity
MGFD30H3 Risk Management
MGFD40H3 Investor Psychology and Behavioural Finance
MGFD50H3 Mergers and Acquisitions: Theory and Practice
MGFD60H3 Financial Modeling and Trading Strategies
MGFD70H3 Advanced Financial Management

NOTE: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of the Calendar.

DOUBLE DEGREE: BBA, SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND FINANCE / HONOURS BSc, SPECIALIST (CO-OPERATIVE) PROGRAM IN STATISTICS, QUANTITATIVE FINANCE STREAM

Academic Directors:
S. Ahmed Email: mgmtss@utsc.utoronto.ca (BBA)
S. Damouras Email: sdamouras@utsc.utoronto.ca (BSc)

Program Director: C. Arsenault E-mail: mgmtcoop@utsc.utoronto.ca

The Double Degree program combines the Specialist (Co-operative) Program in Management and Finance and the Specialist (Co-operative) Program in Statistics, Quantitative Finance stream. Students completing the Double Degree program will qualify to graduate with two degree designations – the Bachelor of Business Administration (BAA) and the Honours Bachelor of Science (BSc), assuming all other degree criteria are met.

The Double Degree program is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as finance, insurance, data analytics, accounting, consulting, business intelligence, marketing, policy, strategic planning and entrepreneurship. The Double Degree program will equip students with a comprehensive understanding of financial markets, and develop the business and quantitative skills required to function in them.

The Double Degree program operates on a trimester schedule, featuring three terms (Fall, Winter and Summer) in each Calendar year. Students work or study in all three terms for five years, or until graduation requirements are met. It requires 11 four-month terms of study and 3 four-month work terms.

Enrolment Requirements

Enrolment in the Double Degree program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English, Grade 12 Advanced Functions, and Grade 12 Calculus & Vectors. Applicants must also submit a Supplementary Application Form.

Course Guidelines for Students Admitted to Double Degree Program Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA22H3, MATA30H3, MATA36H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students already pursuing a BBA program and degree may apply to enter this Double Degree program. The application can be made before the end of the Winter semester and/or before the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request. Students considering switching to the Double Degree program should consult with the program supervisors as soon as possible.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed at least 4.5 credits (none of which can be designated as CR/NCR), including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3 or MGTA36H3, MATA22H3, MATA30H3, and MATA36H3. Students who have taken the sequence [MATA32H3 and MATA33H3] instead of [MATA30H3 and MATA36H3] can still apply to the Double Degree Program if they are taking or plan to take MATA36H3 at the time of application and could receive admission conditional on their grade in MATA36H3 being above a threshold to be specified each year. Note that MATA36H3 will be treated as an Extra (EXT) course in this case.

Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be able to apply to the Double Degree Program. For those who apply with more than 4.5 credits, their CGPA at the time of application will be calculated with more weight assigned to the required courses listed under the 4.5 credits.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Double Degree Co-op Program
Students must maintain a CGPA of 2.5 or higher. Students whose CGPA falls below 2.5 will be placed on probation. Students on probation will be reinstated to the Double Degree program if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.5. Students who cannot get out of probation in two consecutive sessions, or whose CGPA falls below 2.3, will be removed from the Double Degree Co-op Program. Students removed from the Double Degree (Specialist Co-op Programs) can pursue the Double Degree (Specialist Programs), or one of its non Co-op constituent programs (i.e., the BBA Specialist Program in Management and Finance, or the BSc Specialist Program in Statistics, Quantitative Finance stream).

Program Requirements
The Double Degree program requires the completion of 25.0 credits. 22.0 credits are core program requirements as listed below, and 3.0 further credits are required to complete degree requirements.

1. Communications requirement (0.5 credit)
MGTA36H3 Management Communications for Co-op

2. Management requirements (5.5 credits)
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
[MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGHC02H3 Management Skills
MGMA01H3 Principles of Marketing
MGMB01H3 Marketing Management
MGOC10H3 Analysis for Decision-Making
MGOC20H3 Operations Management: A Mathematical Approach
MGTA05H3 Foundations of Business Management or [(MGTA01H3) and (MGTA02H3)]

3. Science requirements (9.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
STAB52H3 An Introduction to Probability
STAB57H3 An Introduction to Statistics
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis
STAD37H3 Multivariate Analysis
STAD57H3 Time Series Analysis

4. Economics requirements (2.0 credits)
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach

5. Finance requirements (3.0 credits)
MGFB10H3 Principles of Finance
MGFC10H3 Intermediate Finance
[MGFC30H3 Introduction to Derivatives Markets or STAB41H3 Financial Derivatives]
MGFD10H3 Investments
STAC70H3 Statistics and Finance I
STAD70H3 Statistics and Finance II

6. At least four courses (2.0 credits) from:
MGEC71H3 Money and Banking
MGFC20H3 Personal Financial Management
MGFC50H3 International Financial Management
MGFC60H3 Financial Statement Analysis & Security Valuation
MGFD15H3 Special Topics in Finance: Private Equity
MGFD30H3 Risk Management
MGFD40H3 Investor Psychology and Behavioural Finance
MGFD50H3 Mergers and Acquisitions: Theory and Practice
MGFD60H3 Financial Modeling and Trading Strategies
MGFD70H3 Advanced Financial Management

NOTE: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of the Calendar.

Co-op Work Term Requirements

All Double Degree program Co-op students must take MGTA36H3 prior to commencement of their first work term. Students are advised to consult regularly with the Academic Supervisors, or the Program Director, if they have questions regarding course selection and scheduling. It is however the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer will be expected to complete a Co-op Work Term Preparation Course (WTPC) beginning in the third week of June, and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3 or MGTA36H3, MATA22H3, and [MATA32H3, and MATA33H3] or [MATA30H3 and MATA36H3].

b) The Management Co-op Work Term Preparation Course (WTPC): COPD07Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 of this *Calendar*.

SPECIALIST PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: Iris Au Email: ecoss@utsc.utoronto.ca

This program will provide a specialization for those wishing for a substantial component of Economics in a Management degree leading to a B.B.A. The Program is designed to allow students to learn practical skills of data analysis and to combine them with the interpretive skills given by knowledge of economic theory.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students requesting admission after first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Specialist Program in Economics for Management Studies requires the completion of 17.0 to 17.5 credits as part of a twenty-credit B.B.A. degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. 8.5 credits in Economics for Management Studies:
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II
MGEC02H3 Topics in Price Theory
MGEC06H3 Topics in Macroeconomics Theory
MGEC11H3 Introduction to Regression Analysis
MGED02H3 Advanced Microeconomic Theory
MGED06H3 Advanced Macroeconomic Theory
MGED11H3 Theory and Practice of Regression Analysis
MGED50H3 Workshop in Economic Research,
and
2.0 credits in Economics for Management Studies courses including at least 1.0 credit at the C-level [excluding MGEC91H3, MGEC92H3, and MGEC93H3].

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3].

3. (7.0 to 7.5 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management

Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGFC10H3 Intermediate Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGHC02H3 Management Skills
MGMB01H3 Marketing Management
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management

4. At least 0.5 credit of courses emphasizing strategic management, chosen from:
MGSB22H3 Entrepreneurship
MGSC01H3 Corporate Strategy
MGSC03H3 Public Management
MGSC05H3 The Changing World of Business-Government Relations
MGSC12H3 Narrative and Management
MGSC14H3 Management Ethics
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSC30H3 The Legal Environment of Business I
MGSD24H3 New Venture Creation and Planning

Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN ECONOMICS FOR MANAGEMENT STUDIES (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: Iris Au E-mail: ecoss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Economics for Management Studies is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This program will provide a specialization for those wishing for a substantial component of Economics in a Management degree leading to a B.B.A. It is designed to allow students to learn practical skills of data analysis and to combine them with the interpretive skills given by the knowledge of economic theory.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and

Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High school students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Economics for Management Studies.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career Exploration (AYCE) course beginning in the third week of June and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/ A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN MANAGEMENT (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca

This program is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Economics.

Enrolment Requirements

Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students requesting admission after first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the

Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
This program requires the completion of 13.5 to 14.0 credits as part of a twenty-credit B.B.A. degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. (7.0 to 7.5 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGMB01H3 Marketing Management
MGFC10H3 Intermediate Finance
MGHC02H3 Management Skills
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3]

3. At least 0.5 credit of courses emphasizing strategic management, chosen from:
MGSC01H3 Corporate Strategy
MGSC03H3 Public Management
MGSC05H3 The Changing World of Business-Government Relations

MGSC12H3 Narrative and Management
MGSC14H3 Management Ethics
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSB22H3 Entrepreneurship
MGSD24H3 New Venture Creation and Planning
MGSC30H3 The Legal Environment of Business I

4. (4.0 credits):
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II
and
1.0 credit at the C-level in Economics for Management Studies courses [excluding MGEC91H3, MGEC92H3, and MGEC93H3]

5. 1.0 credit of D-level in Management or Economic courses.

Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Management is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This program is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Economics.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Management.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career

Exploration (AYCE) course beginning in the third week of June and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1.For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/ A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3.For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN MANAGEMENT AND ACCOUNTING (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed Email: mgmtss@utsc.utoronto.ca

This Program is designed students interested in acquiring a concentrated core of accounting and related knowledge that is required to become a professional accountant. It provides a solid foundation to prepare students to become Chartered Professional Accountants after graduation. In addition, the Specialist Program provides students with the personal and professional attributes necessary to build a successful career in senior management.

The Program encompasses topics such as introductory to advanced financial and managerial accounting, assurance, taxation, economics, and finance. There is also a range of more advanced electives which cover topics and competencies that incorporate critical thinking and ethical decision making.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students requesting admission after the first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Program requires the completion of 16.5 to 17.0 credits as part of a twenty-credit B.B.A. degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. (7.0 to 7.5 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGMB01H3 Marketing Management
MGFC10H3 Intermediate Finance
MGHC02H3 Management Skills
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3]

3. (4.0 credits):
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II

and
1.0 credit at the C-level in Economics for Management Studies courses [excluding MGEC91H3, MGEC92H3, and MGEC93H3]

4. (4.0 credits):
MGAC01H3 Intermediate Financial Accounting I
MGAC02H3 Intermediate Financial Accounting II
MGAC03H3 Intermediate Management Accounting
MGSC30H3 The Legal Environment of Business I
MGAC50H3 Canadian Income Taxation I
MGAC70H3 Management Information Systems
MGAC10H3 Auditing
MGAD70H3 Advanced Accounting Case Analysis: A Capstone Course

5. At least one D-level course (0.5 credit) from:
MGAD20H3 Advanced Auditing
MGAD40H3 Management Control Systems
MGAD45H3 Corporate Governance and Strategy: CPA Perspective
MGAD50H3 Advanced Financial Accounting
MGAD65H3 Canadian Income Taxation II

Notes:

1. In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

2. The Chartered Professional Accountancy (CPA) requirements:
Students interested in the CPA designation must also complete: MGAD40H3/(MGTD54H3) Management Control Systems, MGAD50H3/(MGTD50H3) Advanced Financial Accounting, MGAD65H3/(MGAC60H3) Canadian Income Taxation II, MGAD20H3/(MGTD61H3) Advanced Auditing and MGAD45H3/(MGSC40H3) Corporate Governance and Strategy: CPA Perspective.

Students are strongly advised to refer to the CPA Ontario website. This website will have the designation's specified minimum grade and the updated program requirements. It is imperative that students check the following website regularly for current information.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND ACCOUNTING (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Management and Accounting is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.
This Program is designed for students interested in acquiring a concentrated core of accounting and related knowledge that is required to become a professional accountant. It provides a solid foundation to prepare students to become Chartered Professional Accountants after graduation. In addition, the

Program provides students with the personal and professional attributes necessary to build a successful career in senior management.

The Program encompasses topics such as introductory to advanced financial and managerial accounting, assurance, taxation, economics, and finance. There is also a range of more advanced electives that cover topics and competencies that incorporate critical thinking and ethical decision making.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all

BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Management and Accounting.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career Exploration (AYCE) course beginning in the third week of June and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/ A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN MANAGEMENT AND FINANCE (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed Email: mgmtss@utsc.utoronto.ca

This Program builds on the core of the Specialist in Management Program and offers a deeper and wider coverage of Finance topics. The Program will equip students with a comprehensive understanding of financial issues and concepts, and with a firm mastery of methodologies and problem solving skills required in modern-day finance.

Enrolment Requirements

Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students requesting admission after first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Program requires the completion of 15.5 to 16.0 credits as part of a twenty-credit B.B.A. degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. (7.0 to 7.5 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management

MGMB01H3 Marketing Management
MGFC10H3 Intermediate Finance
MGHC02H3 Management Skills
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H/A37H3]

3. At least 0.5 credit of courses emphasizing strategic management, chosen from:
MGSC01H3 Corporate Strategy
MGSC03H3 Public Management
MGSC05H3 The Changing World of Business-Government Relations
MGSC12H3 Narrative and Management
MGSC14H3 Management Ethics
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSB22H3 Entrepreneurship
MGSD24H3 New Venture Creation and Planning
MGSC30H3 The Legal Environment of Business I

4. (4.0 credits):
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II
and
1.0 credit at the C-level in Economics for Management Studies courses [excluding MGEC91H3, MGEC92H3, and MGEC93H3]

5. (1.0 credit):
MGFC30H3 Introduction to Derivative Markets
MGFD10H3 Investments

6. At least 2.0 full credits from:
MGEC71H3 Money and Banking
MGFC20H3 Personal Financial Management
MGFC50H3 International Financial Management
MGFC60H3 Financial Statement Analysis & Security Valuation
MGFD15H3 Special Topics in Finance: Private Equity
MGFD30H3 Risk Management
MGFD40H3 Investor Psychology & Behavioural Finance
MGFD50H3 Mergers & Acquisitions: Theory & Practice
MGFD60H3 Financial Modelling & Trading Strategies
MGFD70H3 Advanced Financial Management

Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND FINANCE (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Management and Finance is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This program builds on the core of the Specialist and Specialist Co-op Programs in Management, and offers a deeper and wider coverage of Finance topics. The Program will equip students with a comprehensive understanding of financial issues and concepts, and with a firm mastery of methodologies and problem-solving skills required in modern-day finance.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as

CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Management and Finance.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career Exploration (AYCE) course beginning in the third week of June and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/ A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN MANAGEMENT AND HUMAN RESOURCES (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed Email: mgmtss@utsc.utoronto.ca

This Program is designed to give students a broad exposure to all functional areas of Management as well as specialization in the area of Human Resource Management (HRM). HRM is an area that encompasses topics such as recruitment and selection, performance management, compensation, and industrial relations. By taking a B.B.A. with a specialist in HRM, you will be qualified to work in any area of Human Resource Management, to take a graduate degree in HRM (potentially with advance standing), and you will be well prepared for the CHRP certification exam required by many organizations for upper-level HR positions. In order to qualify for CHRP certification, you must maintain an average of at least 70% across the 9 courses required by CHRP and at least 65% in each of those 9 courses.

By completing this Specialist Program in Management and Human Resources, you will cover the nine required CHRP courses.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students requesting admission after first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Program requires the completion of 15.5 to 16.0 credits as part of a twenty-credit B.B.A.degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. (7.0 to 7.5 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGMB01H3 Marketing Management
MGFC10H3 Intermediate Finance
MGHC02H3 Management Skills
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H/A37H3]

3. At least 0.5 credit of courses emphasizing strategic management, chosen from:
MGSC01H3 Corporate Strategy
MGSC03H3 Public Management
MGSC05H3 The Changing World of Business-Government Relations
MGSC12H3 Narrative and Management
MGSC14H3 Management Ethics
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSB22H3 Entrepreneurship
MGSD24H3 New Venture Creation and Planning
MGSC30H3 The Legal Environment of Business I

4. (4.0 credits):
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II
and
1.0 credit at the C-level in Economics for Management Studies courses [excluding MGEC91H3, MGEC92H3, and MGEC93H3]

5. (3.0 credits):
MGHC53H3 Introduction to Industrial Relations
MGHD24H3 Occupational Health and Safety Management
MGHD25H3 Human Resources Recruitment & Selection

MGHD26H3 Training and Development
MGHD27H3 Human Resources Planning and Strategy
MGHD28H3 Compensation

Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND HUMAN RESOURCES (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Management and Human Resources is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This program is designed to give students a broad exposure to all functional areas of Management as well as specialization in the area of Human Resource Management (HRM). HRM is an area that encompasses topics such as recruitment and selection, performance management, compensation, and industrial relations. By taking a B.B.A. with a specialist in HRM, you will be qualified to work in any area of Human Resource Management, to take a graduate degree in HRM (potentially with advanced standing), and you will be well prepared for the CHRP certification exam required by many organizations for upper-level HR positions. In order to qualify for CHRP certification, you must maintain an average of at least 70% across the 9 courses required by CHRP and at least 65% in each of those 9 courses.

By completing this Program, you will cover the nine required CHRP courses.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of

the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Management and Human Resources.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career Exploration (AYCE) course beginning in the third week of June and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN MANAGEMENT AND INFORMATION TECHNOLOGY (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca

This Program is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Computer Science.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, CSCA08H3, CSCA48H3, and [[MATA32H3 & MATA33H3] or [MATA30H3 & MATA37H3]], MGMA01H3 and MGTA35H3.

2. Students requesting admission after first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Program requires the completion of 15.5 to 16.0 credits as part of a twenty-credit B.B.A. degree.

Notes:
1. Students who have taken STAB52H3 and STAB57H3 and then transfer to any other BBA program must also take MGEB12H3 to fulfill the program requirements.

2. A single course may only be used once to fulfill one of the following requirements:

1. (7.0 to 7.5 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGMB01H3 Marketing Management
MGFC10H3 Intermediate Finance
MGHC02H3 Management Skills
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management

2. (1.0 credit):
[MATA32H3 and MATA33H3], strongly recommended or
[MATA30H3/A31H3 and MATA35H3/A36H/A37H3]

3. (3.0 credits):
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Software
CSCB20H3 Introduction to Databases and Web Applications
CSCC01H3 Introduction to Software Engineering

4. (3.5 credits):
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
[[MGEB11H3 Quantitative Methods in Economics I and MGEB12H3 Quantitative Methods in Economics II] or [STAB52H3 Statistics I and STAB57H3 Statistics II]]
and

0.5 credit at the C-level in Economics course selected from the following list:
MGEC40H3 Economics of Organization and Management
MGEC41H3 Industrial Organization
MGEC51H3 Labour Economics I
MGEC58H3 Economics of Human Resource Management
MGEC61H3 International Economics: Finance
MGEC71H3 Money and Banking

5. (0.5 credit):
MGSD15H3 Managing in the Information Economy

6. 0.5 credit at the D-level in Management, Economics or CSC courses.

Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND INFORMATION TECHNOLOGY (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Management and Information Technology is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This program is designed to give students a broad exposure to all functional areas of Management as well as a solid grounding in Computer Science.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, CSCA08H3, CSCA48H3, and [[MATA32H3 and MATA33H3] or [MATA30H3 and MATA37H3]], MGMA01H3 and MGTA36H3.

2. Students requesting admission after first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Management and Information Technology.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete the Advancing Your Career Exploration (AYCE) course beginning in the third week of June and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration course (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND INTERNATIONAL BUSINESS (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: Hugh Laurence Email: mibss@utsc.utoronto.ca
Assistant Director: P. Brown Email: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Management and International Business (MIB) is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This Specialist (Co-operative) Program in Management and International Business is designed to give students a broad exposure to all functional areas of Management while providing a unique understanding of the business world in a global context. Academically, the program requires a language development component and a number of specially designed courses emphasizing international business. Through the high-level curricular programming as well as the practical experiences abroad, students will experience an emphasis on cross-cultural communications and leadership, while simultaneously maintaining a quantitative and analytical focus. Students will also have the opportunity to maintain a more general academic approach or use their electives to focus on a specific discipline within the Management Program.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. At least one of the work terms and one of the study terms must be outside of Canada. Students normally begin with three to five study terms (Fall, Winter and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

Most students will be accepted into the program directly from secondary school. Transfer students and current UTSC students may also apply for admission, but generally, only those students who are

in the early stages of their academic careers will be considered. Admission is based on the applicant's academic performance as well as a supplementary application, and an interview process. Interviews are held in February, March and April for students who pass the initial screening. Successful students will demonstrate strength in academics, extra-curricular and volunteer activities, as well as an interest in, and focus on, developing global competencies. For further information please see section 6B.5 (Co-operative Programs) in this Calendar and the MIB section of the Management website.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGIA01H3, MGIB02H3, and MGTA36H3.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs from other UTSC Programs
Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Program requires the completion of 14.5 to 15.0 credits as part of a twenty-credit B.B.A. degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. 8.5 to 9.0 credits in Management as follows:
MGIA01H3 Principles of International Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
MGTA36H3 Management Communications for Co-op
MGAB01H3 Introductory Financial Accounting I
MGIB01H3 Global Marketing
MGAB02H3 Introductory Financial Accounting II
MGIB02H3 International Organizational Behaviour
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGIB12H3 International Human Resources
MGIC01H3 International Corporate Strategy
MGIC02H3 International Leadership Skills
MGOC10H3 Analytics for Decision Making
MGFC10H3 Intermediate Finance
MGOC20H3 Operations Management
MGID40H3 Introduction to International Business Law
MGID79H3 International Capstone Case Analysis

2. 1.0 credit in Calculus from:
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3]

3. 3.0 credits in Economics for Management Studies as follows:
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II

4. 2.0 credits in Foreign Languages:
If those courses are taken at UTSC, they would be in either Language (LGG) or French (FRE) courses. For courses taken at UTSC, student language skills will be assessed by the Centre for French and Linguistics before being formally placed in the course. The intent of the requirement is to have gained some proficiency in a foreign language, students should ideally take 2.0 credits in one language or at least 1.5 credits in the same language. Students may, with the permission of the MIB Academic Director, take 1.0 credit in one language and 1.0 credit in another.
If courses are taken elsewhere, they should be courses in language proficiency, or if the student already has some proficiency in the language in question, the course should be in the literature of that language and delivered in that language.

Routes to Specialization
The following routes to specialization are optional; students interested in concentrating in a specific area of study may choose from one of the following:

Accounting: Students interested in obtaining their accreditation in Accounting will require an additional semester to fulfill all of the requirements of a Specialist in Accounting. Students should select courses for the CPA by referencing the Specialist Program in Management and Accounting program in the online Calendar.

Economics: Students interested in Economics should take MGEC61H3 and MGEC62H3 and [an additional 1.0 credit in MGE courses at the C- or D-level, with the exception of MGEC91H3, MGEC92H3 and MGEC93H3].

Finance: Students interested in Finance should take MGFC50H3 in the Fall semester of Year 4 of their study, and an additional 2.0 credits in MGF courses. Taking one more course in Finance allows interested students to acquire a better understanding of the fundamental principles of the area.

Human Resources/Organizational Behaviour: Students interested in Human Resources and Organizational Behaviour should take 2.0 credits in MGH courses.

Marketing: Students interested in Marketing should take 2.0 credits in MGM courses, including 0.5 credit at the D-level.

Strategy & Entrepreneurship: Students interested in Management Strategy should take either MGSC03H3 or MGSC05H3 and an additional 1.0 credit in MGS courses. Students interested in Entrepreneurship should take 2.0 credits in MGS courses that are focused on Entrepreneurship.
Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in the Degree Requirements section of this *Calendar*.

Complementary Elective Courses (optional)
The following are some courses from other departments that can be used to complement the Specialist Program in Management and International Business. Students may want to consider these courses as potential electives. Please note that some of these courses require prerequisites which are not included in this program:

- GASB30H3
- ANTA02H3
- ANTB20H3
- GGRA02H3
- IDSB01H3
- IDSC12H3
- POLB80H3
- POLB81H3

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career Exploration (AYCE) course beginning in the third week of June, and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and

MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB13H3 and COPB14H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

International Work and Study Term Requirements
Students are required to complete at least one work term outside of Canada. The location of the international placements will vary according to student interest, availability of positions, practicability and safety of an area, as well as established international relationships.

Students are also required to complete one study term outside of Canada, typically in their third year with an approved partner University, and may be required to complete some of the program requirements during this time. Although scholarships may be available, students are expected to budget for the additional costs of studying abroad.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN MANAGEMENT AND MARKETING (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca

This Program gives students the perspective of the overall organization and beyond. In addition to the company focus, Marketing also ensures that students take an external orientation by having an in-depth understanding of the competition and the consumer. While developing a good understanding of all the issues involved in developing marketing strategy, the student will learn to implement the tools of marketing tactics.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students requesting admission after first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Program requires the completion of 15.5 to 16.0 credits as part of a twenty-credit B.B.A. degree.

Note: A single course may only be used once to fulfill one of the following requirements:

1. (7.0 to 7.5 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGFB10H3 Principles of Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGMB01H3 Marketing Management
MGFC10H3 Intermediate Finance
MGHC02H3 Management Skills
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3]

3. At least 0.5 credit of courses emphasizing strategic management, chosen from:
MGSC01H3 Corporate Strategy
MGSC03H3 Public Management
MGSC05H3 The Changing World of Business-Government Relations
MGSC12H3 Narrative and Management
MGSC14H3 Management Ethics
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSB22H3 Entrepreneurship
MGSD24H3 New Venture Creation and Planning
MGSC30H3 The Legal Environment of Business I

4. (4.0 credits):
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II
and
1.0 credit at the C-level in Economics for Management Studies courses [excluding MGEC91H3, MGEC92H3, and MGEC93H3].

5. 6 of the following courses (3.0 credits):
MGMC01H3 Market Research
MGMC02H3 Consumer Behaviour
MGMC11H3 Product Management and Branding
MGMC12H3 Advertising: From Theory to Practice
MGMC13H3 Pricing Strategy
MGMC14H3 Sales and Distribution Management
MGMD01H3 Applied Marketing Models
MGMD02H3 Judgement and Decision Making
MGMD10H3 Seminar in Consumer Psychology I
MGMD11H3 Seminar in Consumer Psychology II
MGMD20H3 Special Topics in Marketing I
MGMD21H3 Special Topics in Marketing II

Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND MARKETING (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Management and Marketing is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This program gives students the perspective of the overall organization and beyond. In addition to the company focus, Marketing also ensures that students take an external orientation by having an in-depth understanding of the competition and the consumer. While developing a good understanding of all the issues involved in developing a marketing strategy, the student will learn to implement the tools of marketing tactics.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and

Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Management and Marketing.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career Exploration (AYCE) beginning in the third week of June and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN STRATEGIC MANAGEMENT (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed Email: mgmtss@utsc.utoronto.ca

This program has two streams:

The **Management Strategy** stream is designed to give students a broad exposure to all functional areas of Management, as well as a solid grounding in Strategic Management, while providing a variety of elective courses to appeal to students interested in any one of the three sectors. It covers the direction and coordination of the private sector, public sector, or non-profit sector organizations.

The **Entrepreneurship** stream is designed to provide students with the tools to work in a variety of self-employment or entrepreneur career paths, which include working in family businesses, start-ups, or as consultants. The program will allow for significant training of entrepreneurial skills and non-entrepreneurial skills. Both streams have a non-co-op and a co-op component. Co-op students should see the section regarding work term requirements for specific details on courses required before each work term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students enrolling directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Programs Directly from High School Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students requesting admission after first year must request ONLY ONE Management Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits just in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

In order to remain in the Program, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.0 will be removed from the Program. Students removed from the program, for this reason, may request reinstatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
To complete the program, a student must meet the course requirements described below. The program requirements comprise a core of 12.5 to 13.0 credits common to both streams, and additional requirements which depend on the stream for a total of 15.0 to 15.5 credits for the Management Strategy stream and 16.0 to 16.5 credits for the Entrepreneurship stream.

Note: A single course may only be used once to fulfill one of the following program requirements.

Core (12.5 to 13.0 credits):

1. (7.5 to 8.0 credits, depending on the combination of courses completed):
MGMA01H3 Principles of Marketing
MGTA05H3 Foundations of Business Management or [MGTA01H3 and MGTA02H3]
[MGTA35H3 Management Communications for non Co-op or MGTA36H3 Management Communications for Co-op]
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting

MGFB10H3 Principles of Finance
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGMB01H3 Marketing Management
MGFC10H3 Intermediate Finance
MGHC02H3 Management Skills
MGOC10H3 Analytics for Decision Making
MGOC20H3 Operations Management
and
0.5 credit at the D-level in either Management or Economics for Management Studies courses

2. (1.0 credit):
[MATA32H3 and MATA33H3] strongly recommended, or
[MATA30H3/A31H3 and MATA35H3/A36H3/A37H3]

3. (4.0 credits):
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach
MGEB11H3 Quantitative Methods in Economics I
MGEB12H3 Quantitative Methods in Economics II
and
1.0 credit at the C-level in Economics for Management Studies courses [excluding MGEC91H3, MGEC92H3, and MGEC93H3]

Management Strategy Stream (2.5 credits):

4. At least 0.5 credit of courses emphasizing strategic management, chosen from:
MGSB22H3 Entrepreneurship
MGSC12H3 Narrative and Management
MGSC14H3 Management Ethics
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSC30H3 The Legal Environment of Business I
MGSD24H3 New Venture Creation and Planning

5. 1.0 credit from:
MGSC01H3 Corporate Strategy
[MGSC03H3 Public Management or MGSC05H3 The Changing World of Business-Government Relations]

6. 0.5 credit from:
MGEB32H3 Economics Aspects of Public Policy
MGEC31H3 Economics of the Public Sector: Taxation
MGEC32H3 Economics of the Public Sector: Expenditures
MGED43H3 Organization Strategies
MGMC30H3 Event and Sponsorship Management
MGSB22H3 Entrepreneurship
MGSC01H3 Corporate Strategy
MGSC03H3 Public Management

MGSC05H3 The Changing World of Business-Government Relations
MGSC12H3 Narrative and Management
MGSC14H3 Management Ethics
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSC30H3 The Legal Environment of Business I
MGSD32H3 The Legal Environment of Business II
MGSD24H3 New Venture Creation and Planning
MGTC55H3 Planning & Budgeting for Public Institutions
MGTC56H3 Educational Finance & Economics
MGAD40H3 Management Control Systems
(MGSD10H3) Knowledge Management
MGSD15H3 Managing in the Information Economy
MGSD30H3 Intellectual Property Law
PPGC66H3 Public Policy Making

7. (0.5 credit):
MGSD01H3 Senior Seminar in Strategic Management

Entrepreneurship Stream (3.5 credits):

4. (3.5 credits):
MGFC20H3 Personal Financial Management
MGHC52H3 Business Negotiation
MGSB22H3 Entrepreneurship
MGSC20H3 Consulting and Contracting: New Ways of Work
MGSC30H3 The Legal Environment of Business I
MGSC35H3 Innovation
MGSD24H3 New Venture Creation and Planning

Note: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of this *Calendar*.

SPECIALIST (CO-OPERATIVE) PROGRAM IN STRATEGIC MANAGEMENT (BACHELOR OF BUSINESS ADMINISTRATION)

Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Assistant Director: P. Brown E-mail: mgmtcoop@utsc.utoronto.ca

The Specialist (Co-operative) Program in Strategic Management is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy, strategic planning and entrepreneurship.

This program has two streams:

The **Management Strategy Stream** is designed to give students a broad exposure to all functional areas of Management, as well as a solid grounding in Strategic Management while providing a variety of elective courses to appeal to students interested in any one of the three sectors. It covers the direction and coordination of the private sector, public sector, or non-profit sector organizations.

The **Entrepreneurship Stream** is designed to provide students with the tools to work in a variety of self-employment or entrepreneur career paths, which include working in family businesses, start-ups, or as consultants. The program will allow for significant training in entrepreneurial skills and non-entrepreneurial skills.

The Program operates on a trimester schedule, featuring three semesters (Fall, Winter and Summer) in each Calendar year. Students work or study in all three semesters for four years, or until graduation requirements are met. The Program requires eight four-month semesters of study and three four-month work terms. Students normally begin with three to five study terms (Fall, Winter and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Enrolment Requirements
Enrolment in this Program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English and Grade 12 Calculus.

Course Guidelines for Students Admitted to B.B.A. Co-op Programs Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA32H3, MATA33H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students requesting admission after the first year must request ONLY ONE Management Co-op Subject POSt on ACORN. Students may apply at the end of the Winter semester and/or at the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period and is based on University of Toronto courses only. Normally, the minimum CGPA requirement for Co-op Programs will be higher than for non Co-op Programs. Decisions are made when all grades have been received.

Students must have completed the following courses (or their equivalent): MGTA01H3, MGTA02H3, MGEA02H3, MGEA06H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement. None of the courses listed above (or their equivalent) can be designated as CR/NCR. Of the total credits that students have completed when they apply, at least 4.0 credits must be in University of Toronto courses that have been graded (i.e., not designated as CR/NCR). Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be considered for admission to the Program.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar's website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Program
Students whose CGPA falls below 2.5 will be placed on probation; Students whose CGPA falls below 2.3 will be removed from Co-op, and students whose CGPA falls below 2.0 will be removed from all BBA programs. A student may request reinstatement to the non Co-op Specialist Program only if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Most internal admissions to Management Co-op will be done at the end of the Winter semester. Based on availability, a small number of students who apply at the end of the Summer semester may be admitted.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Strategic Management.

Co-op Work Term Requirements
All Co-op students must take MGTA36H3 prior to the commencement of their first work term. Students are advised to consult regularly with the Academic Director, or the Program Advisor if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer to any Management Co-op program will be expected to complete a Co-op Advancing Your Career Exploration (AYCE) course beginning in the third week of June, and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3 and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) The Management Co-op Advancing Your Career Exploration (AYCE): [COPB11H3 and COPB12H3] or COPB10Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees and status in Co-op programs, and certification of completion of Co-op programs, see section 6B.5 or the Management Co-op section in the UTSC *Calendar*.

CERTIFICATE IN BUSINESS

The Certificate in Business is a part-time program designed to provide students with the skills they need to function as managers in today's rapidly changing workplace. It also gives students who

already have degrees in other fields of study an opportunity to focus on business studies. Courses in the Certificate can be used towards various professional designations.

Contact:
Audrey Quirion, Undergraduate Coordinator
Office: IC 240
Tel: 416-287-7271
Email: quirion@utsc.utoronto.ca

Application Process and Admission Requirements:

Please see the Department of Management website for details.

Certificate Requirements:

Students must complete the following:

1. Pass 6.0 credits in Economics for Management Studies courses and Management courses, including:
[[MGEA01H3 and MGEA05H3] or [MGEA02H3 and MGEA06H3]]
MGTA01H3
MGTA02H3

2. Earn a cumulative grade point average of at least 2.00* (if a student's CGPA falls below 2.0. s/he will be removed from the program).
*Students will graduate with honours if their cumulative grade point average is 3.20 or better.

Note: students in their graduating session who intend to take part in the next Convocation must notify the Office of the Registrar of their intention through ACORN. Students who are unable to request graduation through ACORN should contact the Office of the Registrar.

Management Courses

MGAB01H3 - Introductory Financial Accounting I

Together with MGAB02H3, this course provides a rigorous introduction to accounting techniques and to the principles and concepts underlying these techniques.
The preparation of financial statements is addressed from the point of view of both preparers and users of financial information.

Exclusion: VPAB13H3, MGT120H5, RSM219H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAB02H3 - Introductory Financial Accounting II

This course is a continuation of MGAB01H3. Students are encouraged to take it immediately after completing MGAB01H3. Technical topics include the reporting and interpretation of debt and equity issues, owners' equity, cash flow statements and analysis. Through cases, choices of treatment and disclosure are discussed, and the development of professional judgment is encouraged.

Prerequisite: MGAB01H3
Exclusion: VPAB13H3, MGT220H5, RSM220H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAB03H3 - Introductory Management Accounting

An introduction to management and cost accounting with an emphasis on the use of accounting information in managerial decision-making. Topics include patterns of cost behaviour, transfer pricing, budgeting and control systems.

Prerequisite: [[MGEA02H3 and MGEA06H3] or [MGEA01H3 and MGEA05H3]] and MGAB01H3
Exclusion: VPAB13H3, MGT223H5, MGT323H5, RSM222H1, RSM322H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAC01H3 - Intermediate Financial Accounting I

Together with MGAC02H3, this course examines financial reporting in Canada. Through case analysis and the technical material covered, students will build on their knowledge covered in MGAB01H3, MGAB02H3 and, to a lesser extent, MGAB03H3.

Prerequisite: MGAB03H3 and MGAB02H3 and [MGTA35H3 or MGTA36H3]
Exclusion: MGT224H5, MGT322H5, RSM221H1, RSM320H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGAC02H3 - Intermediate Financial Accounting II

This course is a continuation of MGAC01H3. Students will further develop their case writing, technical skills and professional judgment through the study of several complex topics. Topics include leases, bonds, pensions, future taxes and earnings per share.

Prerequisite: MGAC01H3
Exclusion: MGT224H5, MGT322H5, RSM221H1, RSM320H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGAC03H3 - Intermediate Management Accounting

An examination of various cost accumulation and performance evaluation systems and decision-making tools. Topics include job and process costing, flexible budgeting, and variance analysis and cost allocations.

Prerequisite: MGAB03H3
Exclusion: MGT323H5, RSM322H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAC10H3 - Auditing

An introduction to the principles and practice of auditing. The course is designed to provide students with a foundation in the theoretical and practical approaches to auditing by emphasizing auditing theory and concepts, with some discussion of audit procedures and the legal and professional responsibilities of the auditor.

Prerequisite: MGAC01H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAC50H3 - Canadian Income Taxation I

First of two courses in Canadian income taxation. It provides the student with detailed instruction in income taxation as it applies to individuals and small unincorporated businesses. Current tax laws are applied to practical problems and cases. Covers employment income, business and property income, and computation of tax for individuals.

Prerequisite: Completion of at least 10.0 credits including MGAB01H3 and MGAB02H3 and MGAB03H3.
Exclusion: MGT423H5, RSM324H1
Recommended Preparation: MGAC01H3 is highly recommended.
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAC70H3 - Management Information Systems

This course is intended to help students understand the information systems that are a critical component of modern organizations. The course covers the technology, design, and application of data processing and information systems, with emphasis on managerial judgment and decision-making.

Prerequisite: MGAB03H3 and MGHB02H3
Exclusion: MGT371H5, RSM327H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGAD20H3 - Advanced Auditing

An extension of the study of areas covered in the introductory audit course and will include the application of risk and materiality to more advanced topic areas such as pension and comprehensive auditing. Other topics include special reports, future oriented financial information and prospectuses. This will include a review of current developments and literature.

Prerequisite: MGAC10H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAD40H3 - Management Control Systems

An examination of how organizations support the implementation of strategy through the design of planning processes, performance evaluation, reward systems and HR policies, as well as corporate culture. Class discussion will be based on case studies that illustrate a variety of system designs in manufacturing, service, financial, marketing and professional organizations, including international contexts.

Prerequisite: MGAB03H3 and MGHB02H3
Exclusion: MGT428H5, RSM422H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGAD45H3 - Corporate Governance and Strategy - CPA Perspective

This course examines issues in Corporate Governance in today's business environment. Through case studies of corporate "ethical scandals", students will consider workplace ethical risks, opportunities and legal issues. Students will also examine professional accounting in the public interest as well as accounting and planning for sustainability.

Prerequisite: MGAC01H3 and MGSC30H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGAD50H3 - Advanced Financial Accounting

An in-depth study of advanced financial accounting topics: long-term inter-corporate investment; consolidation (including advanced measurements and reporting issues); foreign currency translation and consolidation of foreign subsidiaries and non-profit and public sector accounting. This course is critical to the education of students preparing for a career in accounting.

Prerequisite: MGAC01H3 and MGAC02H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGAD60H3 - Controversial Issues in Accounting

Through case analysis and literature review, this seminar addresses a variety of controversial reporting issues, impression management, the politics of standard setting and the institutional context. Topics may include: international harmonization, special purpose entities, whistle-blowing, the environment and social responsibility and professional education and career issues.

Prerequisite: MGAC01H3 and MGAC02H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAD65H3 - Canadian Income Taxation II

This course is designed to give the student an understanding of the more complex issues of federal income taxation, by applying current tax law to practical problems and cases. Topics include: computation of corporate taxes, corporate distributions, corporate re-organizations, partnerships, trusts, and individual and corporate tax planning.

Prerequisite: MGAC50H3
Exclusion: MGT429H5, RSM424H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGAD70H3 - Advanced Accounting Case Analysis: A Capstone Course

A capstone case course integrating critical thinking, problem solving, professional judgement and ethics. Business simulations will strategically include the specific technical competency areas and the enabling skills of the CPA Competency Map. This course should be taken as part of the last 5.0 credits of the Specialist/Specialist Co-op in Management and Accounting.

Prerequisite: MGAC01H3 and MGAC02H3 and MGAC10H3
Corequisite: MGAC50H3 and MGAD20H3 and MGAD65H3
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

MGAD80H3 - Accounting Issues in International Business

An overview of international accounting and financial reporting practices with a focus on accounting issues related to international business activities and foreign operations. Understanding the framework used in establishing international accounting standards, preparation and translation of financial statements, transfer pricing and taxation, internal and external auditing issues and discussion of the role of accounting and performance measurement for multinational corporations.

Prerequisite: MGAB02H3 and MGAB03H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGFB10H3 - Principles of Finance

An introduction to basic concepts and analytical tools in financial management. Building on the fundamental concept of time value of money, the course will examine stock and bond valuations and capital budgeting under certainty. Also covered are risk-return trade-off, financial planning and forecasting, and long-term financing decisions.

Prerequisite: MGEB11H3 and MGAB01H3 and [MGTA35H3 or MGTA36H3]
Exclusion: MGT338H5, RSM332H1, MGM230H5, RSM230H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGFC10H3 - Intermediate Finance

This course covers mainstream finance topics. Besides a deeper examination of certain topics already covered in MGFB10H3, the course will investigate additional subjects such as working capital management, capital budgeting under uncertainty, cost of capital, capital structure, dividend policy, leasing, mergers and acquisitions, and international financial management.

Prerequisite: MGFB10H3
Exclusion: MGT339H5, RSM333H1, MGM332H5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGFC20H3 - Personal Financial Management

This course covers goal setting, personal financial statements, debt and credit management, risk management, investing in financial markets, real estate appraisal and mortgage financing, tax saving strategies, retirement and estate planning. The course will benefit students in managing their personal finances, and in their future careers with financial institutions.

Prerequisite: MGFB10H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGFC30H3 - Introduction to Derivatives Markets

This course introduces students to the fundamentals of derivatives markets covering futures, swaps, options and other financial derivative securities. Detailed descriptions of, and basic valuation techniques for popular derivative securities are provided. As each type of derivative security is introduced, its applications in investments and general risk management will be discussed.

Corequisite: MGFC10H3
Exclusion: MGT438H5, RSM435H1
Enrolment Limits: 50
Breadth Requirements: Social & Behavioural Sciences

MGFC50H3 - International Financial Management

This course provides students with a framework for making financial decisions in an international context. It discusses foreign exchange markets, international portfolio investment and international corporate finance. Next to covering the relevant theories, students also get the opportunity to apply their knowledge to real world issues by practicing case studies.

Prerequisite: MGFC10H3
Exclusion: MGT439H5, RSM437H1
Enrolment Limits: 50
Breadth Requirements: Social & Behavioural Sciences

MGFC60H3 - Financial Statement Analysis and Security Valuation

This course introduces the tools and skills required to perform a comprehensive financial statement analysis from a user perspective. Students will learn how to integrate the concepts and principles in accounting and finance to analyze the financial statements and to utilize that information in earnings-based security valuation.

Prerequisite: MGFC10H3
Exclusion: RSM429H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGFD10H3 - Investments

This course deals with fundamental elements of investments. Basic concepts and techniques are introduced for various topics such as risk and return characteristics, optimal portfolio construction, security analysis, investments in stocks, bonds and derivative securities, and portfolio performance measurements.

Corequisite: MGFC10H3
Exclusion: MGT330H5, RSM330H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGFD15H3 - Special Topics in Finance: Private Equity

This course explores the private equity asset class and the private equity acquisition process. It covers both the academic and practical components of private equity investing, including: deal sourcing, financial modelling and valuations, transaction structuring, financing, diligence, negotiations, post transaction corporate strategy and governance.

Prerequisite: MGAB02H3 and MGFC10H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGFD25H3 - Financial Technologies and Applications (FinTech)

Financial Technologies (FinTech) are changing our everyday lives and challenging many financial institutions to evolve and adapt. The course explores disruptive financial technologies and innovations such as mobile banking, cryptocurrencies, Robo-advisory and the financial applications of artificial intelligence (AI) etc. The course covers the various areas within the financial industry that are most disrupted, thus leading to discussions on the challenges and opportunities for both the financial institutions and the regulators. Classes are conducted in the experiential learning lab where students explore academic, research and practical components of FinTech.

Prerequisite: MGFC10H3
Corequisite: MGFD10H3
Exclusion: RSM316H1, MGT415H5
Recommended Preparation: CSCA20H3
Enrolment Limits: 40
Breadth Requirements: Quantitative Reasoning

MGFD30H3 - Risk Management

This course develops analytical skills in financial risk management. It introduces techniques used for evaluating, quantifying and managing financial risks. Among the topics covered are market risk, credit risk, operational risk, liquidity risk, bank regulations and credit derivatives.

Prerequisite: MGFC10H3
Exclusion: ECO461H1, RSM432H1
Enrolment Limits: 50
Breadth Requirements: Social & Behavioural Sciences

MGFD40H3 - Investor Psychology and Behavioural Finance

This course is designed to help students understand how different psychological biases can affect investor behaviours and lead to systematic mispricing in the financial market. With simulated trading games, students will learn and practice various trading strategies to take advantage of these market anomalies.

Prerequisite: MGFC10H3 and MGEB12H3
Exclusion: MGT430H5
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGFD50H3 - Mergers and Acquisitions: Theory and Practice

This course provides a general introduction to the important aspects of M&A, including valuation, restructuring, divestiture, takeover defences, deal structuring and negotiations, and legal issues.

Prerequisite: MGFC10H3
Exclusion: MGT434H5
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGFD60H3 - Financial Modeling and Trading Strategies

This course integrates finance theories and practice by using financial modeling and simulated trading. Students will learn how to apply the theories they learned and to use Excel and VBA to model complex financial decisions. They will learn how the various security markets work under different simulated information settings.

Corequisite: MGFC30H3 and MGFD10H3
Exclusion: MGT441H5, RSM434H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGFD70H3 - Advanced Financial Management

This course reinforces and expands upon the topics covered in MGFB10H3/(MGTB09H3), (MGTC03H3) and MGFC10H3/(MGTC09H3). It examines more advanced and complex decision making situations a financial manager faces in such areas as capital budgeting, capital structure, financing, working capital management, dividend policy, leasing, mergers and acquisitions, and risk management.

Prerequisite: MGFC10H3
Exclusion: MGT431H5, MGT433H5, RSM433H1
Enrolment Limits: 50
Breadth Requirements: Social & Behavioural Sciences

MGHB02H3 - Managing People and Groups in Organizations

An introduction to micro- and macro-organizational behaviour theories from both conceptual and applied perspectives. Students will develop an understanding of the behaviour of individuals and groups in different organizational settings. Topics covered include: individual differences, motivation and job design, leadership, organizational design and culture, group dynamics and inter-group relations.

Prerequisite: [[MGTA01H3 and MGTA02H3] or MGTA05H3]] and [MGTA35H3 or MGTA36H3]
Exclusion: MGIB02H3, MGT262H5, RSM260H1, PSY332H
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGHB12H3 - Human Resource Management

An introduction to current human resource practices in Canada, emphasizing the role of Human Resource Management in enhancing performance, productivity and profitability of the organization. Topics include recruitment, selection, training, career planning and development, diversity and human rights issues in the work place.

Prerequisite: MGHB02H3 or MGIB02H3
Exclusion: MGIB12H3, MGT460H5, RSM460H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGHC02H3 - Management Skills

This course will help students develop the critical skills required by today's managers. Topics covered include self-awareness, managing stress and conflict, using power and influence, negotiation, goal setting, and problem-solving. These skills are important for leadership and will enable students to behave more effectively in their working and personal lives.

Prerequisite: [MGHB02H3 or MGIB02H3] and MGHB12H3
Exclusion: MGIC02H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGHC23H3 - Diversity in the Workplace

Examines the nature and effects of diversity in the workplace. Drawing on theories and research from psychology, the course will examine topics like stereotyping, harassment, discrimination, organizational climate for diversity, conflict resolution within diverse teams, and marketing to a diverse clientele.

Prerequisite: MGHB02H3 or MGIB02H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGHC52H3 - Business Negotiation

An introduction to the theory and practice of negotiation in business. This course develops approaches and tactics to use in different forums of negotiation, and an introduction to traditional and emerging procedures for resolving disputes. To gain practical experience, students will participate in exercises which simulate negotiations.

Prerequisite: MGHB02H3 or MGIB02H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGHC53H3 - Introduction to Industrial Relations

An overview of the industrial system and process. The course will introduce students to: industrial relations theory, the roles of unions and management, law, strikes, grievance arbitration, occupational health and safety, and the history of the industrial relations system. Students will participate in collective bargaining simulations.

Prerequisite: Completion of at least 10.0 credits including [[MGEA01H3 and MGEA05H3] or [MGEA02H3 and MGEA06H3]] and [[MGTA01H3 and MGTA02H3] or MGTA05H3]]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGHD14H3 - Leadership

This advanced leadership seminar builds on MGHC02H3/(MGTC90H3) Management Skills, focusing on leadership theories and practices. Through case studies, skill-building exercises, and world-class research, students will learn critical leadership theories and concepts while gaining an understanding of how effective leaders initiate and sustain change at the individual and corporate levels, allowing each student to harness their full leadership potential.

Prerequisite: [MGHB02H3 or MGIB02H3] or MGHC02H3 or MGIC02H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGHD24H3 - Occupational Health and Safety Management

Occupational health and safety is a management function, however, many managers are not prepared for this role when they arrive in their first jobs. This course will consider the physical, psychological, social, and legal environments relevant to health and safety in the workplace.

Prerequisite: MGHB12H3 or MGIB12H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGHD25H3 - Human Resources Recruitment and Selection

An in-depth look at recruitment and selection practices in organizations. Students will learn about organizational recruitment strategies, the legal issues surrounding recruitment and selection, how to screen job applicants, and the role of employee testing and employee interviews in making selection decisions.

Prerequisite: MGHB12H3 or MGIB12H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGHD26H3 - Training and Development

This course is designed to teach students about the training and development process. Topics include how training and development fits within the larger organizational context as well as learning, needs analysis, the design and delivery of training programs, on and off-the-job training methods, the transfer of training, and training evaluation.

Prerequisite: MGHB12H3 or MGIB12H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGHD27H3 - Human Resources Planning and Strategy

This course is designed to provide students with an understanding of strategic human resources management and the human resource planning process. Students will learn how to forecast, design, and develop human resource plans and requirements using both qualitative and quantitative techniques.

Prerequisite: MGHB12H3 or MGIB12H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGHD28H3 - Compensation

This course is designed to provide students with an understanding of compensation programs and systems. Students will learn how to design and manage compensation and benefit programs; individual and group reward and incentive plans; and how to evaluate jobs and assess employee performance.

Prerequisite: MGHB12H3 or MGIB12H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGIA01H3 - Principles of International Marketing

An introduction to basic marketing concepts and tools that provide students with a conceptual framework for analyzing marketing problems facing global managers. Topics are examined from an international marketing perspective and include: buyer behaviour, market segmentation and basic elements of the marketing mix.

Prerequisite: Enrolment in the MIB program
Exclusion: MGMA01H3, MGT252H5, RSM250H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGIB01H3 - Global Marketing

This course examines the challenge of entering and operating in foreign markets. Topics such as international marketing objectives, foreign market selection, adaptation of products, and communication and cultural issues, are examined through case discussions and class presentations. The term project is a detailed plan for marketing a specific product to a foreign country.

Prerequisite: MGMA01H3 or MGIA01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGIB02H3 - International Organizational Behaviour

Examines how and why people from different cultures differ in their workplace behaviours, attitudes, and in how they behave in teams. Uses discussion and case studies to enable students to understand how employees who relocate or travel to a different cultural context, can manage and work in that context.

Prerequisite: MGTA01H3 and MGTA02H3
Corequisite: MGTA05H3
Exclusion: MGHB02H3, RSM260H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGIB12H3 - International Human Resources

This course examines how human resource practices are different across cultures and how they are affected when they "go global." It examines how existing organizational structures and human resource systems need to adapt to globalization, in order to succeed domestically and internationally.

Prerequisite: MGIB02H3
Exclusion: MGHB12H3, RSM406H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGIC01H3 - International Corporate Strategy

International Corporate Strategy examines the analyses and choices that corporations make in an increasingly globalized world. Topics will include: recent trends in globalization, the notion of competitive advantage, the choice to compete through exports or foreign direct investment, and the risks facing multinational enterprises.

Prerequisite: Minimum of 10.0 credits including MGAB02H3 and MGIA01H3 and MGFB10H3 and MGIB02H3
Exclusion: MGSC01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGIC02H3 - International Leadership Skills

Leaders who work internationally must learn how to customize their leadership competencies to the different cultures in which they practice. By using role plays, simulations, cases, and class discussions, students will develop the culturally appropriate leadership skills of articulating a vision, planning and implementing goals, negotiation, and providing effective feedback.

Prerequisite: [[MGTA01H3 and MGTA02H3] or MGTA05H3] and MGIB02H3
Exclusion: MGHC02H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGIC14H3 - International Business Ethics

In a world that's increasingly globalized internationally and multicultural domestically, an ability to deal with the ethical issues arising in international business is essential to a managerial career. Sample topics: Reconciling the different cultural norms of one's home and host countries, and dealing with issues such as child labour and human rights violations.

Prerequisite: [MGTA01H3 and MGTA02H3] or MGTA05H3
Exclusion: MGSC14H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

MGID40H3 - Introduction to International Business Law

This course offers an introduction to key topics in the law governing international trade and business transactions, including the law and conventions governing foreign investment, and the legal structure of doing business internationally, the international sale and transportation of goods, international finance, intellectual property and international dispute settlement.

Prerequisite: Completion of 10.0 credits
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGID79H3 - International Capstone Case Analysis

This course focuses on critical thinking and problem solving skills through analyzing, researching and writing comprehensive business cases, and is offered in the final semester of the MIB specialist program. It is designed to provide students the opportunity to apply the knowledge acquired from each major area of management studies to international real-world situations.

Prerequisite: MGAB03H3 and MGIA01H3 and MGIB12H3 and MGIB02H3 and MGFC10H3 and MGIC01H3
Exclusion: MGSD01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMA01H3 - Principles of Marketing

An introduction to basic concepts and tools of marketing designed to provide students with a conceptual framework for the analysis of marketing problems. The topics include an examination of buyer behaviour, market segmentation; the basic elements of the marketing mix. Enrolment is limited to students registered in Programs requiring this course.

Prerequisite: Enrolment in any Bachelor of Business Administration (BBA) program.
Exclusion: MGIA01H3, RSM250H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGMB01H3 - Marketing Management

This course builds on the introductory course in marketing and takes a pragmatic approach to develop the analytical skills required of marketing managers. The course is designed to help improve skills in analyzing marketing situations, identifying market opportunities, developing marketing strategies, making concise recommendations, and defending these recommendations. It will also use case study methodology to enable students to apply the concepts learned in the introductory course to actual issues facing marketing managers.

Prerequisite: [MGMA01H3 or MGIA01H3] and [MGTA35H3 or MGTA36H3]
Exclusion: MGIB01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMC01H3 - Market Research

A decision oriented course, which introduces students to the market research process. It covers different aspects of marketing research, both quantitative and qualitative, and as such teaches some essential fundamentals for the students to master in case they want to specialize in marketing. And includes alternative research approaches (exploratory, descriptive, causal), data collection, sampling, analysis and evaluation procedures are discussed. Theoretical and technical considerations in design and execution of market research are stressed. Instruction involves lectures and projects including computer analysis.

Prerequisite: MGMA01H3 or MGIA01H3
Exclusion: MGT453H5, RSM452H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMC02H3 - Consumer Behaviour

This course provides an overview of the role of products in the lives of consumers. Drawing on theories from psychology, sociology and economics, the course provides (1) a conceptual understanding of consumer behaviour (e.g. why people buy), and (2) an experience in the application of these concepts to marketing decisions.

Prerequisite: MGMA01H3/(MGTB04H3) or MGIA01H3/(MGTB07H3)
Exclusion: (MGTD13H3)
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGMC11H3 - Product Management and Branding

Managing products and brands is one of the most important functions of a successful marketer. Product lines and extensions and other issues of product portfolio will be covered in this course. This course also examines issues about brand equity, its measurement and contemporary challenges faced by marketers about branding product management.

Prerequisite: MGMA01H3 or MGIA01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMC12H3 - Advertising: From Theory to Practice

An introduction to the basic communication tools used in planning, implementing and evaluating promotional strategies .The course reviews basic findings of the behavioural sciences dealing with perception, personality, psychological appeals, and their application to advertising as persuasive communication. Students will gain experience preparing a promotional plan for a small business. The course will rely on lectures, discussions, audio-visual programs and guest speakers from the local advertising industry.

Prerequisite: MGMA01H3 or MGIA01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMC13H3 - Pricing Strategy

Pricing right is fundamental to a firm's profitability. This course draws on microeconomics to develop practical approaches for optimal pricing decision-making. Students develop a systematic framework to think about, analyze and develop strategies for pricing right. Key issues covered include pricing new product, value pricing, behavioural issues, and price segmentation.

Prerequisite: [MGMA01H3 or MGIA01H3 and MGEB02H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMC14H3 - Sales and Distribution Management

Sales and distribution are critical components of a successful marketing strategy. The course discusses key issues regarding sales force management and distribution structure and intermediaries. The course focuses on how to manage sales force rather than how to sell, and with the design and management of an effective distribution network.

Prerequisite: MGMA01H3 or MGIA01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMC20H3 - Marketing in the Information Age

This course covers the advantages/disadvantages, benefits and limitations of E-commerce. Topics include: E-commerce business models; Search Engine Optimization (SEO); Viral marketing; Online branding; Online communities and Social Networking; Mobile and Wireless E-commerce technologies and trends; E-Payment Systems; E-commerce security issues; Identity theft; Hacking; Scams; Social Engineering; Biometrics; Domain name considerations and hosting issues. Students will also gain valuable insight from our guest speakers.

Prerequisite: MGMA01H3 or MGIA01H3
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGMC30H3 - Event and Sponsorship Management

Event and Sponsorship Management involves the selection, planning and execution of specific events as well as the management of sponsorship rights. This will involve the integration of management skills, including finance, accounting, marketing and organizational behaviour, required to produce a successful event.

Prerequisite: Completion of at least 10.0 credits in any B.B.A. program
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGMD01H3 - Applied Marketing Models

Marketing is a complex discipline incorporating not only an “art” but also a “science”. This course reviews the “science” side of marketing by studying multiple models used by companies. Students will learn how to assess marketing problems and use appropriate models to collect, analyze and interpret marketing data.

Prerequisite: [MGMA01H3 or MGIA01H3] and MGEB11H3 and MGEB12H3
Exclusion: MGT455H5
Enrolment Limits: 30
Breadth Requirements: Quantitative Reasoning

MGMD02H3 - Judgement and Decision Making

This course combines the elements of behavioural research as applied to consumers' decision making models and how this can be used to predict decisions within the marketing and consumer oriented environment. It also delves into psychology, economics, statistics, and other disciplines.

Prerequisite: MGMA01H3 or MGIA01H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGMD10H3 - Seminar in Consumer Psychology I

This seminar style course has advanced discussions that will go in-depth into a variety of topics in consumer psychology. Students will read papers from academic journals each week, lead the discussions, and share their ideas. Students are expected to submit a research paper at the end of the term. This course is appropriate for senior marketing students who are keen on getting insights into consumer psychology and/or those who want to get exposure to academic research in consumer psychology.

Prerequisite: [MGMA01H3 or MGIA01H3] and MGMB01H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

MGMD11H3 - Seminar in Consumer Psychology II

This seminar style course has advanced discussions that will go in-depth into a variety of topics in consumer psychology. Students will read papers from academic journals each week, lead the discussions, and share their ideas. Students are expected to submit a research paper at the end of the term. This course is appropriate for senior marketing students who are keen on getting insights into consumer psychology and/or those who want to get exposure to academic research in consumer psychology.

Prerequisite: [MGMA01H3 or MGIA01H3] and MGMB01H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

MGMD20H3 - Special Topics in Marketing I

This course focuses on current faculty research in areas like consumer behaviour and choice, pricing, promotions etc. and their importance to marketing and research methodology. Topics covered will include specific theoretical or functional areas in marketing. The particular content in any given year will depend on the faculty member.

Prerequisite: [MGMA01H3 or MGIA01H3] and [MGMB01H3 or MGIB01H3]
Recommended Preparation: Some interest in or additional knowledge of different aspects of Marketing
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

MGMD21H3 - Special Topics in Marketing II

This course focuses on current faculty research in areas like consumer behaviour and choice, pricing, promotions, etc. and their importance to marketing and research methodology. Topics covered will include specific theoretical or functional areas in marketing. The particular content in any given year will depend on the faculty member.

Prerequisite: [MGMA01H3 or MGIA01H3] and [MGMB01H3 or MGIB01H3]
Recommended Preparation: Some interest in or additional knowledge of different aspects of Marketing
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

MGOC10H3 - Analytics for Decision Making

The course develops understanding and practical skills of applying quantitative analysis for making better management decisions. Studied analytics methodologies include linear programming; multi-criteria optimization; network and waiting-line models; decision analysis. Methodologies are practiced in a broad range of typical business problems drawn from different areas of management, using spreadsheet modelling tools.

Prerequisite: [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] and MGEB02H3 and MGEB11H3 and MGEB12H3 and [MGTA36H3 or MGTA35H3]
Enrolment Limits: 60
Breadth Requirements: Quantitative Reasoning

MGOC20H3 - Operations Management

An introduction to a broad scope of major strategic and tactical issues in Operations Management. Topics include project management, inventory management, supply chain management, forecasting, revenue management, quality management, lean and just-in-time operations, and production scheduling.

Prerequisite: MGOC10H3
Exclusion: MGT374H5, RSM370H1
Enrolment Limits: 60
Breadth Requirements: Quantitative Reasoning

MGOD30H3 - Business Data Analytics

The course lays the foundation for big data analysis and predictive analytics via state-of-the-art methodologies and computational tools, and incorporates hands-on case studies. By the end of the course, students will be able to develop data architecture plans to improve decision making in business processes.

Prerequisite: MGOC10H3
Enrolment Limits: 20
Breadth Requirements: Quantitative Reasoning

MGOD40H3 - Simulation and Analysis of Business Processes

Students will learn how to construct and implement simulation models for business processes using a discrete-event approach. They will gain skills in the statistical analysis of input data, validation and verification of the models. Using these models, they can evaluate the alternative design and make system improvements. Students will also learn how to perform a Monte Carlo simulation. Spreadsheet and simulation software are integral components to this course and will enhance proficiency in Excel.

Prerequisite: MGOC10H3
Corequisite: MGOC20H3
Exclusion: MIE360H1
Enrolment Limits: 35
Breadth Requirements: Quantitative Reasoning

MGSB22H3 - Entrepreneurship

This course focuses on the skills required and issues such as personal, financial, sales, operational, and personnel, which entrepreneurs face as they launch and then manage their early-stage ventures. Particular focus is placed on developing the analytical skills necessary to assess opportunities, and applying the appropriate strategies and resources in support of an effective business launch.

Prerequisite: MGAB01H3 and [MGHB02H3 or MGIB02H3]
Exclusion: MGT493H5, RSM493H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGSC01H3 - Corporate Strategy

Begins with an examination of the concept of business mission. Students are then challenged to evaluate the external and industry environments in which businesses compete, to identify sources of competitive advantage and value creation, and to understand and evaluate the strategies of active Canadian companies.

Prerequisite: MGHB02H3 and [MGEB02H3 or MGEB06H3]
Exclusion: MGIC01H3, VPAC13H3, MGT492H5, RSM392H1
Enrolment Limits: 40
Breadth Requirements: Social & Behavioural Sciences

MGSC03H3 - Public Management

An introduction to key public sector management processes: strategic management at the political level, planning, budgeting, human resource management, and the management of information and information technology. Makes use of cases, and simulations to develop management skills in a public sector setting.

Prerequisite: MGHB02H3 or POLB50Y3
Enrolment Limits: 35
Breadth Requirements: Social & Behavioural Sciences

MGSC05H3 - The Changing World of Business - Government Relations

How regulation, privatization and globalization are affecting today's managers.
Most major management issues and business opportunities involve government (domestic or foreign) at some level - whether as lawmaker, customer, partner, investor, tax-collector, grant-giver, licensor, dealmaker, friend or enemy. This course provides students with an understanding of the issues and introduces some of the skills necessary to successfully manage a business's relationship with government.

Prerequisite: [MGTA01H3 and MGTA02H3] or MGTA05H3 or POLB50Y3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGSC07H3 - Introduction to Case Analysis Techniques

This course focuses on the theory and techniques of analyzing and writing business cases. The main focus is to assist students in developing their conceptual and analytical skills by applying the theory learned from each major area of management studies to practical situations. Critical thinking and problem solving skills are developed through extensive use of case analysis.

Prerequisite: MGAB03H3 and MGFB10H3 and MGHB02H3
Corequisite: MGMA01H3 and MGAB02H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGSC12H3 - Narrative and Management

Through the analysis of fiction and non-fiction narratives, particularly film, dealing with managers in both private and public sector organizations, the course explores the ethical dilemmas, organizational politics and career choices that managers can expect to face.

Prerequisite: MGHB02H3 or ENGD94H3 or [2.0 credits at the C-level in POL courses]
Enrolment Limits: 35
Breadth Requirements: Arts, Literature & Language

MGSC14H3 - Management Ethics

Increasingly, the marketplace has come to reward -- and government regulators have come to demand -- a sophisticated managerial approach to the ethical problems that arise in business. Topics include ethical issues in international business, finance, accounting, advertising, intellectual property, environmental policy, product and worker safety, new technologies, affirmative action, and whistle-blowing.

Prerequisite: [[MGTA01H3 and MGTA02H3] or MGTA05H3] and [MGTA36H3 or MGTA35H3]
Exclusion: MGIC14H3, PHLB06H3
Enrolment Limits: 60
Breadth Requirements: History, Philosophy & Cultural Studies

MGSC20H3 - Consulting and Contracting: New Ways of Work

Tomorrow's graduates will enjoy less career stability than previous generations. Technology and demography are changing the nature of work. Instead of having secure progressive careers, you will work on contract or as consultants. You will need to think, and act like entrepreneurs. This course examines why and how.

Prerequisite: MGAB03H3 and MGHB02H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGSC26H3 - Venture Capital

Venture capital and other sources of private equity play a critical role in the founding and development of new enterprises. In this course, we will review all aspects of starting and operating a venture capital firm. At the end of the course, students will better understand how the venture capital industry works; what types of businesses venture capitalists invest in and why; how contract structures protect investors; how venture capitalists create value for their investors and for the companies in which they invest; and how the North American venture capital model ports to other contexts.

Prerequisite: MGTA05H3 and MGFB10H3 and MGEC40H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Entrepreneurship stream of the Specialist program in Strategic Management. Additional students will be admitted as space permits.

MGSC30H3 - The Legal Environment of Business I

An introduction to the Canadian legal system and its effects on business entities. The course includes an examination of the Canadian court structure and a discussion of the various forms of business ownership, tort law, contract law, and property law.

Prerequisite: Completion of at least 10.0 credits including MGAB01H3 and MGAB02H3 and [MGTA36H3 or MGTA35H3]
Exclusion: MGT393H5, RSM225H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGSC35H3 - Innovation

This course introduces students to the nature and elements of innovation and explores the application of innovation to various stages of business evolution and to different business sectors. The course has a significant practical component, as student groups will be asked to provide an innovation plan for a real company.

Prerequisite: MGSB22H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Entrepreneurship Stream of the Specialist/Specialist Co-op programs in Strategic Management.

MGSC44H3 - International Business Management

This Course deals with: political risk & contingency planning; human threats; weather extremes; NGOs (WTO, IMF and World Bank); government influences - dumping, tariffs, subsidies; cultures around the world; foreign exchange issues; export financing for international business; international collaborative arrangements; and pro-active/re-active reasons for companies going international. There will also be guest speakers.

Prerequisite: MGHB02H3
Exclusion: MGT491H1, RSM490H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGSC46H3 - Managerial Perspectives in a Global Economy

This course discusses Managerial perspectives on the influences of Globalization, Sovereignty and Sustainable Development. Extensive discussions of int'l business ethics and social-cultural considerations. Foreign Direct Investment, Outsourcing, Global Manufacturing and Supply Chain Management. Guest speakers.

Prerequisite: MGEB02H3 and MGEB06H3
Exclusion: MGEC93H3, ECO230Y1, ECO364H5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGSD01H3 - Senior Seminar in Strategic Management

This course allows 4th year specialists in strategic management to apply their specific skills to several larger, in-depth studies of strategic management issues in open-ended real-world cases. How strategic decisions are made at the higher levels of management with an opportunity to integrate previous training through analyses and presentations.

Prerequisite: Completion of at least 11.0 credits with 1.0 credit from MGSC01H3, MGSC03H3 or MGSC05H3.
Exclusion: MGID79H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

MGSD05H3 - Corporate Strategy: Competitive Advantage

Topics include competitive advantage, organizing for competitive advantage, and failures in achieving competitive advantage. Through case analysis and class discussion, the course will explore competitive positioning, sustainability, globalization and international expansion, vertical integration, ownership versus outsourcing, economies of scale and scope, and the reasons for failure.

Prerequisite: MGSC01H3 or MGIC01H3
Enrolment Limits: 40. Admission is restricted to students enrolled in a BBA subject POSt.
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Management Strategy stream of the Specialist/Specialist Co-op in Strategic Management.

MGSD15H3 - Managing in the Information Economy

Topics include identifying, managing and exploiting information assets, the opportunities and limits of dealing with Big Data, the impact of digitalization of information, managing under complexity, globalization, and the rise of the network economy. Students will explore a topic in greater depth through the writing of a research paper.

Prerequisite: MGSC01H3 or MGIC01H3 or enrolment in the Specialist/Specialist (Co-op) program in Management and Information Technology (BBA).
Enrolment Limits: 30. Admission is restricted to students enrolled in a BBA subject POSt.
Breadth Requirements: History, Philosophy & Cultural Studies

MGSD24H3 - New Venture Creation and Planning

Aimed at students interested in launching their own entrepreneurial venture. The core of the course is the development of a complete business plan which details the student's plans for the venture's initial marketing, finance and growth. This course provides a framework for the evaluation of the commercial potential of business ideas.

Prerequisite: MGMA01H3 and MGAB01H3 and MGAB02H3
Breadth Requirements: Social & Behavioural Sciences

MGSD30H3 - Intellectual Property Law

This course considers patents, trademarks, copyright and confidential information. Canada's international treaty obligations as well as domestic law will be covered. Policy considerations, such as the patentability of life forms, copyright in an Internet age of easy copying and patents and international development will be included.

Prerequisite: MGSC30H3
Recommended Preparation: 9.5 credits in addition to the prerequisite.
Breadth Requirements: Social & Behavioural Sciences

MGSD32H3 - The Legal Environment of Business II

This course further examines the issues raised in Legal Environment of Business I. It focuses on relevant areas of law that impact business organizations such as consumer protection legislation and agency and employment law, and it includes a discussion of laws affecting secured transactions and commercial transactions.

Prerequisite: MGSC30H3
Exclusion: MGT394H5, RSM325H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGSD40H3 - Principles of Corporate Social Responsibility

This course will examine the role of business in society including stakeholder rights and responsibilities, current important environmental and social issues (e.g., climate change, ethical supply chains, etc.) and management practices for sustainable development. It is designed for students who are interested in learning how to integrate their business skills with a desire to better society.

Prerequisite: Completion of 10.0 credits, including MGTA05H3 or [MGTA01H3 and MGTA02H3]
Enrolment Limits: 30
Breadth Requirements: History, Philosophy & Cultural Studies

MGTA01H3 - Introduction to Business

This course serves as an introduction to the organizations called businesses. The course looks at how businesses are planned, organized and created, and the important role that businesses play within the Canadian economic system.

Exclusion: MGTA05H3, MGM101H1, RSM100Y1
Breadth Requirements: Social & Behavioural Sciences

MGTA02H3 - Managing the Business Organization

This course serves as an introduction to the functional areas of business, including accounting, finance, production and marketing. It builds on the material covered in MGTA01H3.

Prerequisite: MGTA01H3
Exclusion: MGTA05H3, MGM101H5, MGM102H5, RSM100Y1
Breadth Requirements: Social & Behavioural Sciences

MGTA05H3 - Foundations of Business Management

This course is the basic foundation to the core areas of the program. It covers the process of management, the role of the manager in an increasingly networked economy of global reach, some aspects of leadership in business strategy and business administration, the place of the business in its larger economic context, and the economic perspective of business.

Prerequisite: Enrolment in a Bachelor of Business Administration (B.B.A.) program.
Exclusion: MGTA01H3, MGTA02H3, , MGM101H5, RSM100Y1, COM110H
Breadth Requirements: Social & Behavioural Sciences

MGTA35H3 - Management Communications for non Co-op

In this course students will learn skills and techniques to communicate effectively in an organization. Creativity, innovation and personal style will be emphasized. Students will build confidence in their ability to communicate effectively in every setting. This course is a mandatory requirement for non-co-op students.

Exclusion: MGTA36H3
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

MGTA36H3 - Management Communications for Co-op

In this course students will learn skills and techniques to communicate effectively in an organization. Creativity, innovation and personal style will be emphasized. Students will build confidence in their ability to communicate effectively in every setting. Those completing this course will experience a high degree of personal satisfaction.

Exclusion: MGTA35H3
Enrolment Limits: 40
Breadth Requirements: Arts, Literature & Language

MGTB60H3 - Introduction to the Business of Sport

This course provides an introductory overview to the business of sport as it has become one of the largest industries in the world. Drawing from relevant theories applied to sports management, the course will incorporate practical case studies, along with critical thinking assignments and guest speakers from the industry.

Prerequisite: MGTA05H3 or [MGTA01H3 and MGTA02H3]
Exclusion: (HLTB05H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

MGTC56H3 - Educational Finance and Economics

This course is about the financing of schools, colleges, and universities; how resources are raised, how they are allocated and how they are economically justified.
The course is also about connections between investments in education and economic growth, between systems and allocation, between forms of budgets and between funding and performance.

Prerequisite: MGAB03H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

MGTC55H3 - Planning and Budgeting for Public Institutions

The theory and practice of planning and allocating resources in public institutions. After presenting theories of planning and resource allocation in public institutions, the course will illustrate them by means of case studies of challenges faced by universities and colleges. Instruction will be a combination of lecture, discussion, and case studies.

Prerequisite: MGAB03H3
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

MGTD15H3 - Commercial Dispute Resolution

This course examines the theory and practice of models of dispute resolution for the settlement of commercial conflict. Through readings, classroom lectures and independent research, students will consider alternate dispute resolution models of advanced negotiation, mediation and arbitration as alternatives to traditional court-based litigation.

Prerequisite: Completion of at least 8.0 credits
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

MGTD80H3 - Supervised Reading In Management

These courses are intended for upper level students whose interests are not covered in one of the other Management courses normally offered. The courses will only be offered when a faculty member is available for supervision and to students whose Management performance has been well above average. Students interested in these courses should consult with the Supervisor of Studies for Management well in advance.
Students must obtain consent from the supervising instructor and the Department of Management before registering in these courses.

MGTD81H3 - Supervised Reading In Management

These courses are intended for upper level students whose interests are not covered in one of the other Management courses normally offered. The courses will only be offered when a faculty member is available for supervision and to students whose Management performance has been well above average. Students interested in these courses should consult with the Supervisor of Studies for Management well in advance.
Students must obtain consent from the supervising instructor and the Department of Management before registering in these courses.

MGTD82Y3 - Supervised Reading In Management

These courses are intended for upper level students whose interests are not covered in one of the other Management courses normally offered. The courses will only be offered when a faculty member is available for supervision and to students whose Management performance has been well above average. Students interested in these courses should consult with the Supervisor of Studies for Management well in advance.
Students must obtain consent from the supervising instructor and the Department of Management before registering in these courses.

Management Co-op

Assistant Directory: P. Brown (416-287-7421) Email: mgmtcoop@utsc.utoronto.ca
Management Co-op Academic Director: S. Ahmed E-mail: mgmtss@utsc.utoronto.ca
Management and International Business Academic Director: H. Laurence E-mail: mibss@utsc.utoronto.ca
Double Degree in Quantitative Finance and Statistics Co-op Supervisor of Studies: S. Damouras E-mail: sdamouras@utsc.utoronto.ca

The Management Co-op Programs are enriched programs that combine academic studies with paid work experience in public and private enterprises. Depending on their needs and abilities students work in areas such as accounting, public administration, auditing, communications, economic development, finance, human resources/personnel, information systems, marketing, policy and strategic planning. For information about the benefits of Co-op, the work term preparation course and fees, please visit the Management Co-op website.

Full Year/Trimester Programming
The Management Co-op programs operate on a trimester schedule, featuring three terms (fall, winter and summer) in each *Calendar* year. Students work or study in all three terms for four years or until graduation requirements are met. With the exception of the Double Degree (Co-op) programs that require 9 four-month terms of study, each Management (Co-op) program requires eight four-month terms of study and three work terms. Students normally begin with three to five study terms (Fall. Winter, and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

Program Requirements
Co-op students follow the course requirements of one of the Specialist programs offered by the Department of Management. In addition, all Co-op students must take MGTA36H3 prior to their first work term. In the first two years of study, most students will follow a common core curriculum of studies (please refer to the detailed requirements in the Management Co-op programs). Students are advised to consult regularly with the Academic Director if they have questions regarding course selection and scheduling. It is, however, the students' individual responsibility to ensure they have completed the correct courses to make them eligible for each work term and they have correctly completed program and degree requirements for graduation.

Work Terms
To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:
1. For the first work term:
a) 7.0 credits, including: [MGTA05H3 or [MGTA01H3 and MGTA02H3]], MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGMA01H3, MGTA36H3, MATA32H3, and MATA33H3. [MATA32H3 and MATA33H3] are strongly recommended, however [MATA29H3/A30H3/A31H3 and MATA35H3/A36H3/A37H3] may also be used to satisfy the calculus requirement.
b) Regular Co-op students will take Advancing Your Career Exploration Part I & II COPB11H3 and COPB12H3.
MIB students will take Advancing Your Career Exploration MIB Part I & II COPB13H3 and COPB14H3. However, COPB10Y3/(COPD07Y3) is available to all Co-op students during the summer.
2. For the second work term: 9.0 credits.
3. For the third work term: 11.0 credits.

Status in Co-op Programs:
Status in a Management Co-op program will be determined at the end of each session (Fall, Winter, and Summer) for students who have attempted at least 4.0 credits since beginning their studies at UTSC, or in other Arts and Sciences Divisions at the University. Students with a cumulative grade point average (CGPA) of 2.5 or higher are considered to be in good standing.

- Students whose CGPA falls below 2.5 will be placed on probation.
- Students may clear probation by achieving a CGPA of 2.5 or better in the next study session. Where the CGPA is below 2.5, but the sessional grade point average (SGPA) is at least 2.5, students may be granted a second probationary semester.
- Students must clear their probation within a maximum of two study sessions in order to remain in a Co-op program.
- Students on probation in the Co-op program may not apply for a work-term until they have successfully cleared their probation. However, if a student's CGPA falls below 2.5 after having secured a job placement through the recruitment process, the student will be permitted to complete the work-term but must clear probation before being permitted to participate in the next recruitment process.
- Students whose CGPA falls below 2.3 will be removed from the Co-op program; students whose CGPA falls below 2.0 will be removed from all B.B.A. programs. A student may request reinstatement to a Specialist Non-Co-op program only, if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session, and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Status in Double Degree Co-op Programs:
Status in the Double Degree: B.B.A, Specialist (Co-op) Program in Management and Finance/Hon.B.Sc., Specialist (Co-op) Program in Statistics, Quantitative Finance Stream will be determined at the end of each session (Fall, Winter, and Summer) for students who have attempted at least 4.0 credits since beginning their studies at UTSC, or in other Arts and Sciences Divisions at the University. Students with a cumulative grade point average (CGPA) of 2.5 or higher are considered to be in good standing.

- To remain in the Double Degree (Co-op) program students must maintain a CGPA of 2.5 or higher after having attempted at least 4.0 credits.
- Students whose CGPA falls below 2.5 will be placed on probation.
- Students may clear probation by successfully completing at least 2.0 credits (none of which can be designated as CR/NCR) and achieving a CGPA of 2.5 or better in the next study session.
- Students who cannot clear probation in two consecutive sessions, or whose CGPA falls below 2.3, will be removed from the Double Degree (Co-op) program; these students can pursue a Double Degree Non-Co-op program, or one of the constituent Specialist Non-Co-op programs (i.e., the B.B.A. Specialist Program in Management and Finance, or the B.Sc. Specialist Program in Statistics, Quantitative Finance stream).

Management Co-op Courses

COPB10Y3 - Advancing Your Career Exploration

This preparatory course helps students navigate the challenges ahead in the world of Co-op and business. This course is highly interactive and practical, and is completed before students start seeking their Co-op work term opportunity. Management experienced Coordinators and expert guests instruct students on how to succeed in their work terms.

This course is a compulsory requirement for all Management Co-op programs. Students must pass this course before proceeding to seek for a work term opportunity, therefore, this course may be repeated.

Prerequisite: Restricted to students in the Management Co-op programs.
Exclusion: [COPB11H3 and COPB12H3]; [COPB13H3 and COPB14H3]; (COPD07Y3); (COPD08Y3)
Note: 1. If you are enrolled in this course, you would not be required to complete: [COPB11H3 and COPB12H3] or [COPB13H3 and COPB14H3].
2. UTSC internal applicants are accepted into the Management Co-op in early May.

COPB11H3 - Advancing Your Career Exploration Part I

This preparatory course helps students navigate the challenges ahead in the world of Co-op and business. This course is highly interactive and practical, and is completed before students start seeking their Co-op work term opportunity. Management experienced Coordinators, and expert guests instruct students on how to succeed in their work terms.

This course is a compulsory requirement for all Management Co-op programs. Students must pass this course before proceeding to seek for a work term opportunity, therefore, this course may be repeated.

Prerequisite: Restricted to students in the Management Co-op programs.
Exclusion: COPB10Y3/(COPD07Y3); (COPD08Y3)
Note: Students in their first year Management Co-op Programs will be core-loaded into this course.

COPB12H3 - Advancing Your Career Exploration Part II

This preparatory course helps students navigate the challenges ahead in the world of Co-op and business. This course is highly interactive and practical, and is completed before students start seeking their Co-op work term opportunity. Management experienced Coordinators and expert guests continue to instruct students on how to succeed in their work terms.

This course is a compulsory requirement for all Management Co-op programs. Students must pass this course before proceeding to seek a work term opportunity, therefore, this course may be repeated.

Prerequisite: Restricted to students in the Management Co-op programs.
Exclusion: COPB10Y3/(COPD07Y3); (COPD08Y3)
Note: Students in their first year Management Co-op Programs will be core-loaded into this course.

COPB13H3 - Advancing Your Career Exploration Management International Business Part I

This preparatory course helps Management International Business (MIB) students navigate the challenges ahead in the world of Co-op and business. This course is highly interactive, and practical, and is completed before students start seeking for their Co-op work term opportunity. Management experienced Coordinators and expert guests instruct students on how to succeed in their work terms.

This course is a compulsory requirement for the Management MIB Co-op program. Students need to pass this course before proceeding to seek a Co-op work term opportunity, therefore, this course may be repeated.

Prerequisite: Restricted to students in the Management International Business Co-op program.
Exclusion: COPB10Y3/(COPD07Y3); (COPD08Y3)
Note: Students in their first year Management International Business Co-op program will be core-loaded into this course.

COPB14H3 - Advancing Your Career Exploration Management International Business Part II

This preparatory course helps Management International Business (MIB) students navigate the challenges ahead in the world of Co-op and business. This course is highly interactive and practical, and is completed before students start seeking their Co-op work term opportunity. Management experienced Coordinators and expert guests continue to instruct students on how to succeed in their work terms.

This course is a compulsory requirement for the Management MIB Co-op program. Students need to pass this course before proceeding to seek a Co-op work term opportunity, therefore, this course may be repeated.

Prerequisite: Restricted to students in the Management International Business Co-op program.
Exclusion: COPB10Y3/(COPD07Y3); (COPD08Y3)
Note: Students in their first year Management International Business Co-op program will be core-loaded into this course.

COPC07H3 - Management Co-op Work Term

This course provides Management Co-op students work term opportunity to improve their employability skills and workplace productivity by concentrating on key areas to foster their development.

Prerequisite: COPB10Y3/(COPD07Y3) or (COPD08Y3) or [COPB11H3 and COPB12H3] or [COPB13H3 and COPB14H3]; restricted to students in the Management Co-op and/or Management International Business Co-op programs.

Mathematics

Faculty List

- S. Aretakis, B.Sc. (Patras), M.Sc., Ph.D. (Cambridge), Assistant Professor
- N. Breuss, B.Sc., M.Sc. (Kharkov), Ph.D. (Moscow), Associate Professor, Teaching Stream
- S. Chrysostomou, B.Sc., M.Sc. (Toronto), Associate Professor, Teaching Stream
- J. Friedlander, B.Sc. (Toronto), M.A. (Waterloo), Ph.D. (Penn. State), F.R.S.C., University Professor
- M. Goldstein, B.A., M.Sc., Ph.D. (Tashkent), Professor
- R. Grinnell, B.Sc. (Toronto), M.A. (York), Ph.D. (Queen's), Associate Professor, Teaching Stream
- R. Haslhofer, B.Sc., M.Sc., Ph.D. (ETH Zurich), Assistant Professor
- L.C. Jeffrey, A.B. (Princeton), M.A. (Cambridge), D. Phil. (Oxford), F.R.S.C., Professor
- X. Jiang, B.Sc., M.Sc., Ph.D. (Glasgow), Associate Professor, Teaching Stream
- C. Karimian Pour, B.Sc. (Tehran), M.Sc., Ph.D. (Ottawa), CLTA Assistant Professor, Teaching Stream
- E. Mendelsohn, B.Sc., M.Sc. (Manitoba), Ph.D. (McGill), Professor Emeritus
- E. Moore, Hon. B.A., B.Ed., M.A. (Memorial), Ph.D. (Toronto), Associate Professor, Teaching Stream Emeritus
- J. Scherk, B.Sc., M.Sc. (Toronto), D.Phil. (Oxford), Associate Professor Emeritus
- P. Selick, B.Sc., M.Sc., Ph.D. (Princeton), Professor Emeritus
- Z. Shahbazi, B.Sc. (Sharif), M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- R.W. Sharpe, B.Sc., M.Sc. (Toronto), Ph.D. (Yale), Professor Emeritus
- K.Smith, Hon. B.Sc., M.Sc., Ph.D. (Toronto), Assistant Professor, Teaching Stream
- G. Tiozzo, B.Sc., M.Sc., (dePisa), Ph.D. (Scuola Normale Superiore), Assistant Professor
- B. Virag, B.A. (Harvard), M.A., Ph.D.(Berkeley), Professor
- W. Yu, B.A., B.Sc. (Indiana), M.Res., M.Phil. (Imperial College London), Ph.D. (MIT), Assistant Professor

Associate Chair: B. Virág (416-287-7261) Email: balint@math.toronto.edu

Our Mathematics began in the ancient Mesopotamian civilizations. The Babylonians already knew much of the mathematics taught traditionally in our schools. Their algebra and geometry were phrased in terms of crops and fields and money. Since the Renaissance, much of mathematics has come from problems in physics and astronomy; for example, calculus arose from problems in mechanics. In turn, mathematics has provided the theoretical framework and tools in the Physical Sciences. In the 19th century, some parts of mathematics appeared to develop away from their origins in the physical world. To the great surprise of many scientists and mathematicians, some of the "pure" mathematics has turned out to be essential in many aspects of 20th-century science. Differential geometry provides the language for general relativity and cosmology, and Hilbert space theory and group representations are the tools for quantum mechanics. Similarly, graph theory, combinatorics and number theory play a major role in computer science.

Note on Admission to MAT programs
Beginning in 2018-19 there are admissions criteria for the Specialist/Specialist (Co-op) and Major/Major (Co-op) Program in Mathematics. Details and information on how to apply for admission to these programs can be found in the program descriptions below.

Combined Degree Programs, Honours Bachelor of Science/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Mathematics Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching

- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics	Mathematics

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Major/Major Co-op in Mathematics	
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);

    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN MATHEMATICS (SCIENCE)

Supervisor of Studies: R. Grinnell (416-287-5655) Email: raymond.grinnell@utoronto.ca

Program Objectives
This program provides the student with a sound foundation in the main areas of mathematics, and some exposure to computer programming and statistics. It comprises three streams: Comprehensive, Statistics, and Teaching, each serving a more specific goal.

The **Comprehensive Stream** provides a broad and deep knowledge of mathematics at the undergraduate level. It is the recommended program for students who plan to pursue graduate study in mathematics, but it is also suitable for other career paths.

The **Statistics Stream** provides greater exposure to statistics, and the areas of mathematics most closely associated with it. This stream prepares students for careers in industry, or for graduate study in certain mathematically-oriented subjects, including statistics and financial mathematics.

The **Teaching Stream** is intended for students with a serious interest in mathematics but whose career objectives lie in mathematics education at the elementary or secondary level.

Enrolment Requirements

Enrolment in the Specialist Program in Mathematics (all streams) is limited.

Students may apply to enter the program after completing 4.0 credits, and must have passed all of the A-level MAT and CSC courses required in the program ([CSCA08H3 or CSCA20H3], CSCA67H3/ MATA67H3, MATA22H3, MATA31H3, and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

Program Requirements
The Program requirements consist of a core 15 courses (7.5 credits), common to all streams, and additional requirements that depend on the stream, for a total of 26-27 courses (13.0-13.5 credits).

The structure of the programs allows for easy switching between streams until relatively late. Consequently, these programs should not be viewed as rigidly separated channels feeding students to different career paths, but as a flexible structure that provides guidance to students in their course selection based on their broad (but possibly fluid) interests.

Core (7.5 credits)

1. Writing Requirement (0.5 credit)(*)
0.5 credits from the following: ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3, ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB09H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), ACMA01H3, (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, WSTA01H3.
(*) It is recommended that this requirement be satisfied by the end of the second year.

2. A-level courses (2.5 credits)
[CSCA08H3 Introduction to Computer Science I or CSCA20H3 Introduction to Programming]
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences
[MATA67H3 or CSCA67H3 Discrete Mathematics]

3. B-level courses (3.5 credits)
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB43H3 Introduction to Analysis
MATB44H3 Differential Equations I
STAB52H3 Introduction to Probability (**)
STAB57H3 Introduction to Statistics (**)
(**) This course may be taken after the second year, except for the Statistics stream.

4. C-level courses (1.0 credit)
MATC01H3 Groups and Symmetry
MATC34H3 Complex Variables

A. Comprehensive Stream
This stream requires a total of 27 courses (13.5 credits) In addition to the core requirements 1-4 common to all streams, 12 other distinct courses must be chosen satisfying all of the following requirements:

5. Additional courses in analysis and algebra (1.5 credits):
1.5 credits from the following:
MATC37H3 Introduction to Real Analysis
MATC46H3 Differential Equations II
MATD01H3 Fields and Groups
MATD35H3 Introduction to Discrete Dynamical Systems
MATD46H3 Partial Differential Equations

6. Courses in key areas of mathematics (1.0 credit):
1.0 credit from the following:
MATC15H3 Introduction to Number Theory
MATC27H3 Introduction to Topology

MATC63H3 Differential Geometry
MATD02H3 Classical Plane Geometries and their Transformations
MATD34H3 Complex Variables II

7. Mathematics of computation (1.0 credit):
1.0 credit from the following:
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCC63H3 Computability and Computational Complexity
CSCC73H3 Algorithm Design and Analysis
MATC09H3 Introduction to Mathematical Logic
MATC32H3 Graph Theory and Algorithms for its Applications
MATC44H3 Introduction to Combinatorics
MATD16H3 Coding Theory and Cryptography
MATD44H3 Topics in Combinatorics

8. Electives (2.5 credits):
2.5 credits from CSC/MAT/STA/PHY of which at least 1.5 must be at the C- or D-level MAT courses (excluding MATC90H3).

B. Statistics Stream
This stream requires a total of 26 courses (13.0 credits). In addition to the core requirements 1-4 common to all streams, 11 other distinct courses must be chosen, satisfying all of the following requirements (in choosing courses to satisfy requirements 7-9, students must select at least one D-level course).

5. Algebra and Analysis (1.5 credits):
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
MATD01H3 Fields and Groups

6. Statistics (1.5 credits):
STAC58H3 Statistical Inference
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis

7. Discrete mathematics and geometry (0.5 credit):
0.5 credit from the following:
MATC32H3 Graph Theory and Algorithms for its Applications
MATC44H3 Introduction to Combinatorics
MATD02H3 Classical Plane Geometries and their Transformations
MATD44H3 Topics in Combinatorics
MATD50H3 Mathematical Introduction to Game Theory

8. Upper-level MAT electives (1.0 credit):
1.0 credit from any C- or D-level MAT courses (*)
(*) For students wishing to pursue graduate studies in Mathematics or Statistics it is recommended that MATC37H3 be chosen as one of these two courses.

9. Upper-level STA electives (1.0 credit):
1.0 credit from the following:
(ACTB47H3) Introductory Life Contingencies
Any C- or D-level STA course, excluding STAC32H3, STAC53H3 and STAD29H3

C. Teaching Stream
This stream requires a total of 26 courses (13.0 credits). In addition to the core requirements 1-4 common to all streams, 11 other distinct courses must be chosen, satisfying all of the following requirements:

5. Algebra, analysis, and geometry (1.5 credits):
1.5 credits from the following:
MATC15H3 Introduction to Number Theory
MATD01H3 Fields and Groups
MATD02H3 Classical Plane Geometries and their Transformations
MATD35H3 Introduction to Discrete Dynamical Systems
MATD46H3 Partial Differential Equations

6. Discrete mathematics (0.5 credit):
0.5 credit from the following:
MATC32H3 Graph Theory and Algorithms for its Applications
MATC44H3 Introduction to Combinatorics
MATD44H3 Topics in Combinatorics

7. MAT electives (1.5 credits):
1.5 credits of any C- or D-level MAT courses

8. MAT/STA/CSC electives (2.0 credits):
2.0 credits of any C- or D-level MAT, STA, CSC courses, excluding STAC32H3, STAC53H3 and STAD29H3
It is recommended that students obtain a TA-ship within the Department of Computer and Mathematical Sciences.

SPECIALIST (CO-OPERATIVE) PROGRAM IN MATHEMATICS (SCIENCE)

Supervisor of Studies: R. Grinnell, (416-287-5655) Email: raymond.grinnell@utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-operative) Program in Mathematics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Mathematics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements

Enrolment in the Specialist (Co-operative) Program in Mathematics is limited.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must have passed all of the A-level CSC and MAT courses required in the program ([CSCA08H3 or CSCA20H3], CSCA67H3/MATA67H3, MATA22H3, MATA31H3, and MATA37H3). Students are admitted on the basis of academic

performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

Prospective Co-op Students:
Prospective students (i.e., those not already admitted to a Co-op Degree POSt) may apply to the Co-op Program after completing 4.0 credits, and must have passed all of the A-level CSC and MAT courses required in the program ([CSCA08H3 or CSCA20H3], CSCA67H3/MATA67H3, MATA22H3, MATA31H3, and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Mathematics.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Mathematics and have completed at least 10.0 credits.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN MATHEMATICS (SCIENCE)

Supervisor of Studies: N. Breuss (416-287-7226) Email: n.breuss@utoronto.ca

Program Objectives
This program provides a solid foundation in basic areas of mathematics, especially those with applications in other disciplines. This program is intended to be combined with other programs, typically a major program in another discipline.

Enrolment Requirements

Enrolment in the Major Program in Mathematics is limited.

Students may apply to enter the program after completing 4.0 credits, and must have passed all of the A-level MAT and CSC courses required in the program (CSCA08H3, CSCA67H3/MATA67H3, MATA22H3, MATA31H3 and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

Program Requirements
This stream requires a total of 8.5 credits, chosen so as to satisfy all of the following requirements:

1. Foundational courses - 5.5 credits from the following:
[MATA67H3 or CSCA67H3 Discrete Mathematics]
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences
CSCA08H3 Introduction to Computer Science I
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I

STAB52H3 Introduction to Probability
[MATC01H3 Groups and Symmetry OR MATC15H3 Introduction to Number Theory]

2. Further analysis courses - 1.0 credit from the following:
MATB43H3 Introduction to Analysis
MATC27H3 Introduction to Topology
MATC34H3 Complex Variables

MATC46H3 Differential Equations II

MATD35H3 Introduction to Discrete Dynamical Systems

MATD46H3 Partial Differential Equations
MATD67H3 - Differentiable Manifolds

3. Further algebra, geometry, and discrete mathematics courses - 1.0 credit from the following:
MATC01H3 Groups and Symmetry
MATC09H3 Introduction to Mathematical Logic
MATC15H3 Introduction to Number Theory
MATC32H3 Graph Theory and Algorithms for its Applications
MATC44H3 Introduction to Combinatorics
MATC63H3 Differential Geometry
MATD01H3 Fields and Groups
MATD02H3 Classical Plane Geometries and their Transformations

MATD44H3 Topics in Combinatorics

4. Elective courses - 1.0 credit from the following:
MATB61H3 Linear Programming and Optimization
STAB57H3 Introduction to Statistics

MATD50H3 Mathematical Introduction to Game Theory

Any C- or D-level MAT, STA, or CSC course, excluding STAC32H3, STAC53H3 and STAD29H3

Recommended Writing Course
Students are urged to take a course from the following list of courses by the end of their second year. ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3, ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB09H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), ACMA01H3, (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.

MAJOR (CO-OPERATIVE) PROGRAM IN MATHEMATICS (SCIENCE)

Supervisor of Studies: N. Breuss (416-287-7226), n.breuss@utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Mathematics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The

program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Mathematics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements

Enrolment in the Major (Co-operative) Program in Mathematics is limited.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must have passed all of the A-level CSC and MAT courses required in the program (CSCA08H3, CSCA67H3/MATA67H3, MATA22H3, MATA31H3 and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

Prospective Co-op Students:
Prospective students (i.e., those not already admitted to a Co-op Degree POSt) may apply to the Co-op Program after completing 4.0 credits, and must have passed all of the A-level CSC and MAT courses required in the program (CSCA08H3, CSCA67H3/MATA67H3, MATA22H3, MATA31H3 and MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available on the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar's Office each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Mathematics.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Mathematics and have completed at least 7.0 credits.

In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

Mathematics Courses

MATA02H3 - The Magic of Numbers

A selection from the following topics: the number sense (neuroscience of numbers); numerical notation in different cultures; what is a number; Zeno's paradox; divisibility, the fascination of prime numbers; prime numbers and encryption; perspective in art and geometry; Kepler and platonic solids; golden mean, Fibonacci sequence; elementary probability.

Exclusion: (MATA20H3), MATA23H3, MATA30H3, MATA31H3, MATA32H3, MAT102H, MAT123H, MAT125H, MAT133Y, MAT134Y, MAT135Y, MAT137Y, MAT157Y
Breadth Requirements: Quantitative Reasoning

MATA22H3 - Linear Algebra I for Mathematical Sciences

A conceptual and rigorous approach to introductory linear algebra that focuses on mathematical proofs, the logical development of fundamental structures, and essential computational techniques. This course covers complex numbers, vectors in Euclidean n-space, systems of linear equations, matrices and matrix algebra, Gaussian reduction, structure theorems for solutions of linear systems, dependence and independence, rank equation, linear transformations of Euclidean n-space, determinants, Cramer's rule, eigenvalues and eigenvectors, characteristic polynomial, and diagonalization.

Prerequisite: Grade 12 Calculus and Vectors or [Grade 12 Advanced Functions and Introductory Calculus and Geometry and Discrete Mathematics]
Exclusion: MATA23H3, MAT223H, MAT240H
Breadth Requirements: Quantitative Reasoning
Note: Students are cautioned that MAT223H cannot be used as a substitute for MATA22H3 in any courses for which MATA22H3 appears as a prerequisite.

MATA23H3 - Linear Algebra I

Systems of linear equations, matrices, Gaussian elimination; basis, dimension; dot products; geometry to Rn; linear transformations; determinants, Cramer's rule; eigenvalues and eigenvectors, diagonalization.

Prerequisite: Grade 12 Calculus and Vectors or [Grade 12 Advanced Functions and Introductory Calculus and Geometry and Discrete Mathematics]
Exclusion: MATA22H3, MAT223H
Breadth Requirements: Quantitative Reasoning

MATA29H3 - Calculus I for the Life Sciences

A course in differential calculus for the life sciences. Algebraic and transcendental functions; semi-log and log-log plots; limits of sequences and functions, continuity; extreme value and intermediate value theorems; approximation of discontinuous functions by continuous ones; derivatives; differentials; approximation and local linearity; applications of derivatives; antiderivatives and indefinite integrals.

Prerequisite: Grade 12 Calculus and Vectors
Exclusion: (MATA20H3), (MATA27H3), MATA30H3, MATA31H3, MATA32H3, MAT123H, MAT124H, MAT125H, MAT126H, MAT133Y, MAT135Y, MAT137Y, MAT157Y, JMB170Y
Breadth Requirements: Quantitative Reasoning

MATA30H3 - Calculus I for Physical Sciences

An introduction to the basic techniques of Calculus. Elementary functions: rational, trigonometric, root, exponential and logarithmic functions and their graphs. Basic calculus: limits, continuity, derivatives, derivatives of higher order, analysis of graphs, use of derivatives; integrals and their applications.

Prerequisite: Grade 12 Calculus and Vectors
Exclusion: (MATA20H3), (MATA27H3), MATA29H3, MATA31H3, MATA32H3, MAT123H, MAT124H, MAT125H, MAT126H, MAT133Y, MAT135Y, MAT137Y, MAT157Y, JMB170Y
Breadth Requirements: Quantitative Reasoning

MATA31H3 - Calculus I for Mathematical Sciences

A conceptual introduction to Differential Calculus of algebraic and transcendental functions of one variable; focus on logical reasoning and fundamental notions; first introduction into a rigorous mathematical theory with applications. Course covers: real numbers, set operations, supremum, infimum, limits, continuity, Intermediate Value Theorem, derivative, differentiability, related rates, Fermat's, Extreme Value, Rolle's and Mean Value Theorems, curve sketching, optimization, and antiderivatives.

Prerequisite: Grade 12 Calculus and Vectors
Exclusion: (MATA20H3), (MATA27H3), MATA29H3, MATA30H3, MATA32H3, MAT123H, MAT124H, MAT125H, MAT126H, MAT133Y, MAT135Y, MAT137Y, MAT157Y, JMB170Y
Breadth Requirements: Quantitative Reasoning

MATA32H3 - Calculus for Management I

This is a calculus course with most examples and applications of an economic nature. Topics to be covered: introduction to financial mathematics; continuous functions including exponential and logarithmic functions with applications to finance; differential calculus of one variable; marginal analysis; optimization of single variable functions; techniques of integration.

Prerequisite: Grade 12 Calculus and Vectors
Exclusion: (MATA20H3), (MATA27H3), MATA30H3, MATA31H3, MAT123H, MAT125H, MAT133Y, MAT135Y, MAT136Y, MAT137Y, MAT157Y, JMB170Y
Breadth Requirements: Quantitative Reasoning

MATA33H3 - Calculus for Management II

This course will introduce the students to multivariable calculus and linear algebra. Topics will include: linear programming (geometric); matrix algebra; multi-variable functions; contour maps; partial and total differentiation; optimization of multi-variable functions; optimization of constrained multi-variable functions; Lagrange multipliers.

Prerequisite: MATA32H3
Exclusion: (MATA21H3), (MATA27H3), MATA35H3, MATA36H3, MATA37H3, MAT124H, MAT126H, MAT133Y, MAT134Y, MAT135Y, MAT136Y, MAT137Y, MAT157Y, JMB170Y
Breadth Requirements: Quantitative Reasoning

MATA35H3 - Calculus II for Biological Sciences

A calculus course emphasizing examples and applications in the biological and environmental sciences. Discrete probability; basic statistics: hypothesis testing, distribution analysis. Basic calculus: extrema, growth rates, diffusion rates; techniques of integration; differential equations; population dynamics; vectors and matrices in 2 and 3 dimensions; genetics applications.

Prerequisite: MATA29H3
Exclusion: (MATA21H3), MATA33H3, MATA36H3, MATA37H3, MAT123H, MAT124H, MAT125H, MAT126H, MAT133Y, MAT135Y, MAT137Y, MAT157Y, JMB170Y,(MATA27H3)
Breadth Requirements: Quantitative Reasoning
Note: This course will not satisfy the Mathematics requirements for any Program in Computer and Mathematical Sciences, nor will it normally serve as a prerequisite for further courses in Mathematics. Students who are not sure which Calculus II course they should choose are encouraged to consult with the supervisor(s) of Programs in their area(s) of interest.

MATA36H3 - Calculus II for Physical Sciences

This course is intended to prepare students for the physical sciences. Topics to be covered include: techniques of integration, Newton's method, approximation of functions by Taylor polynomials, numerical methods of integration, complex numbers, sequences, series, Taylor series, differential equations.

Prerequisite: MATA30H3 or MATA31H3
Exclusion: (MATA21H3), MATA33H3, MATA35H3, MATA37H3, MAT123H, MAT124H, MAT125H, MAT126H, MAT133Y, MAT135Y, MAT137Y, MAT157Y, JMB170Y
Breadth Requirements: Quantitative Reasoning

MATA37H3 - Calculus II for Mathematical Sciences

A rigorous introduction to Integral Calculus of one variable and infinite series; strong emphasis on combining theory and applications; further developing of tools for mathematical analysis. Riemann Sum, definite integral, Fundamental Theorem of Calculus, techniques of integration, improper integrals, numerical integration, sequences and series, absolute and conditional convergence of series, convergence tests for series, Taylor polynomials and series, power series and applications.

Prerequisite: MATA31H3 and [MATA67H3 or CSCA67H3]
Exclusion: (MATA21H3), MATA33H3, MATA35H3, MATA36H3, MAT123H, MAT124H, MAT125H, MAT126H, MAT133Y, MAT135Y, MAT137Y, MAT157Y, JMB170Y
Breadth Requirements: Quantitative Reasoning

MATA67H3 - Discrete Mathematics

Introduction to discrete mathematics: Elementary combinatorics; discrete probability including conditional probability and independence; graph theory including trees, planar graphs, searches and traversals, colouring. The course emphasizes topics of relevance to computer science, and exercises problem-solving skills and proof techniques such as well ordering, induction, contradiction, and counterexample.
Same as CSCA67H3

Prerequisite: Grade 12 Calculus and Vectors and one other Grade 12 mathematics course
Exclusion: CSCA67H3, (CSCA65H3), CSC165H, CSC240H, MAT102H
Recommended Preparation: CSCA08H3 or CSCA20H3
Breadth Requirements: Quantitative Reasoning

MATB24H3 - Linear Algebra II

Fields, vector spaces over a field, linear transformations; inner product spaces, coordinatization and change of basis; diagonalizability, orthogonal transformations, invariant subspaces, Cayley-Hamilton theorem; hermitian inner product, normal, self-adjoint and unitary operations. Some applications such as the method of least squares and introduction to coding theory.

Prerequisite: MATA22H3 or MAT240H
Exclusion: MAT224H
Breadth Requirements: Quantitative Reasoning
Note: Students are cautioned that MAT224H cannot be used as a substitute for MATB24H3 in any courses for which MATB24H3 appears as a prerequisite.

MATB41H3 - Techniques of the Calculus of Several Variables I

Partial derivatives, gradient, tangent plane, Jacobian matrix and chain rule, Taylor series; extremal problems, extremal problems with constraints and Lagrange multipliers, multiple integrals, spherical and cylindrical coordinates, law of transformation of variables.

Prerequisite: [MATA22H3 or MATA23H3 or MAT223H] and [[MATA36H3 or MATA37H3] or MAT137Y or MAT157Y]]
Exclusion: MAT232H, MAT235Y, MAT237Y, MAT257Y
Breadth Requirements: Quantitative Reasoning

MATB42H3 - Techniques of the Calculus of Several Variables II

Fourier series. Vector fields in Rn, Divergence and curl, curves, parametric representation of curves, path and line integrals, surfaces, parametric representations of surfaces, surface integrals. Green's, Gauss', and Stokes' theorems will also be covered. An introduction to differential forms, total derivative.

Prerequisite: MATB41H3
Exclusion: MAT235Y, MAT237Y, MAT257Y, MAT368H
Breadth Requirements: Quantitative Reasoning

MATB43H3 - Introduction to Analysis

Generalities of sets and functions, countability. Topology and analysis on the real line: sequences, compactness, completeness, continuity, uniform continuity. Topics from topology and analysis in metric and Euclidean spaces. Sequences and series of functions, uniform convergence.

Prerequisite: [MATA37H3 or MAT137Y] and MATB24H3
Exclusion: MAT246Y
Breadth Requirements: Quantitative Reasoning

MATB44H3 - Differential Equations I

Ordinary differential equations of the first and second order, existence and uniqueness; solutions by series and integrals; linear systems of first order; non-linear equations; difference equations.

Prerequisite: [MATA36H3 or MATA37H3] and [MATA22H3 or MATA23H3]
Corequisite: MATB41H3
Exclusion: MAT244H, MAT267H
Breadth Requirements: Quantitative Reasoning

MATB61H3 - Linear Programming and Optimization

Linear programming, simplex algorithm, duality theory, interior point method; quadratic and convex optimization, stochastic programming; applications to portfolio optimization and operations research.

Prerequisite: [MATA22H3 or MATA23H3] and MATB41H3
Exclusion: APM236H
Breadth Requirements: Quantitative Reasoning

MATC01H3 - Groups and Symmetry

Congruences and fields. Permutations and permutation groups. Linear groups. Abstract groups, homomorphisms, subgroups. Symmetry groups of regular polygons and Platonic solids, wallpaper groups. Group actions, class formula. Cosets, Lagrange's theorem. Normal subgroups, quotient groups. Emphasis on examples and calculations.

Prerequisite: [MATA36H3 or MATA37H3] and [MATB24H3 or MAT224H]
Exclusion: MAT301H, MAT347Y
Breadth Requirements: Quantitative Reasoning

MATC09H3 - Introduction to Mathematical Logic

Predicate calculus. Relationship between truth and provability; Gödel's completeness theorem. First order arithmetic as an example of a first-order system. Gödel's incompleteness theorem; outline of its proof. Introduction to recursive functions.

Prerequisite: MATB24H3 and [MATB43H3 or CSCB36H3]
Exclusion: MAT309H, CSC438H
Breadth Requirements: Quantitative Reasoning

MATC15H3 - Introduction to Number Theory

Elementary topics in number theory; arithmetic functions; polynomials over the residue classes modulo m, characters on the residue classes modulo m; quadratic reciprocity law, representation of numbers as sums of squares.

Prerequisite: MATB24H3 and MATB41H3
Exclusion: MAT315H
Breadth Requirements: Quantitative Reasoning

MATC27H3 - Introduction to Topology

Fundamentals of set theory, topological spaces and continuous functions, connectedness, compactness, countability, separatability, metric spaces and normed spaces, function spaces, completeness, homotopy.

Prerequisite: MATB41H3 and MATB43H3
Exclusion: MAT327H
Breadth Requirements: Quantitative Reasoning

MATC32H3 - Graph Theory and Algorithms for its Applications

Graphs, subgraphs, isomorphism, trees, connectivity, Euler and Hamiltonian properties, matchings, vertex and edge colourings, planarity, network flows and strongly regular graphs; applications to such problems as timetabling, personnel assignment, tank form scheduling, traveling salesmen, tournament scheduling, experimental design and finite geometries.

Prerequisite: [MATB24H3 or CSCB36H3] and at least one other B-level course in Mathematics or Computer Science
Breadth Requirements: Quantitative Reasoning

MATC34H3 - Complex Variables

Theory of functions of one complex variable, analytic and meromorphic functions. Cauchy's theorem, residue calculus, conformal mappings, introduction to analytic continuation and harmonic functions.

Prerequisite: MATB42H3
Exclusion: MAT334H
Breadth Requirements: Quantitative Reasoning

MATC37H3 - Introduction to Real Analysis

Topics in measure theory: the Lebesgue integral, Riemann-Stieltjes integral, Lp spaces, Hilbert and Banach spaces, Fourier series.

Prerequisite: MATB43H3
Exclusion: MAT337H, (MATC38H3)
Recommended Preparation: MATC27H3
Breadth Requirements: Quantitative Reasoning

MATC44H3 - Introduction to Combinatorics

Basic counting principles, generating functions, permutations with restrictions. Fundamentals of graph theory with algorithms; applications (including network flows). Combinatorial structures including block designs and finite geometries.

Prerequisite: MATB24H3
Exclusion: MAT344H
Breadth Requirements: Quantitative Reasoning

MATC46H3 - Differential Equations II

Sturm-Liouville problems, Green's functions, special functions (Bessel, Legendre), partial differential equations of second order, separation of variables, integral equations, Fourier transform, stationary phase method.

Prerequisite: MATB44H3
Corequisite: MATB42H3
Exclusion: APM346H
Breadth Requirements: Quantitative Reasoning

MATC58H3 - An Introduction to Mathematical Biology

Mathematical analysis of problems associated with biology, including models of population growth, cell biology, molecular evolution, infectious diseases, and other biological and medical disciplines. A review of mathematical topics: linear algebra (matrices, eigenvalues and eigenvectors), properties of ordinary differential equations and difference equations.

Prerequisite: MATB44H3
Breadth Requirements: Quantitative Reasoning

MATC63H3 - Differential Geometry

Curves and surfaces in Euclidean 3-space. Serret-Frenet frames and the associated equations, the first and second fundamental forms and their integrability conditions, intrinsic geometry and parallelism, the Gauss-Bonnet theorem.

Prerequisite: MATB42H3 and MATB43H3
Exclusion: MAT363H
Breadth Requirements: Quantitative Reasoning

MATC82H3 - Mathematics for Teachers

The course discusses the Mathematics curriculum (K-12) from the following aspects: the strands of the curriculum and their place in the world of Mathematics, the nature of proofs, the applications of Mathematics, and its connection to other subjects.

Prerequisite: [MATA67H3 or CSCA67H3 or (CSCA65H3)] and [MATA22H3 or MATA23H3] and [MATA37H3 or MATA36H3]
Exclusion: MAT382H
Breadth Requirements: Quantitative Reasoning

MATC90H3 - Beginnings of Mathematics

Mathematical problems which have arisen repeatedly in different cultures, e.g. solution of quadratic equations, Pythagorean theorem; transmission of mathematics between civilizations; high points of ancient mathematics, e.g. study of incommensurability in Greece, Pell's equation in India.

Prerequisite: 10.0 credits, including 2.0 credits in MAT courses [excluding MATA02H3], of which 0.5 credit must be at the B-level
Exclusion: MAT390H
Breadth Requirements: Quantitative Reasoning

MATD01H3 - Fields and Groups

Abstract group theory: Sylow theorems, groups of small order, simple groups, classification of finite abelian groups. Fields and Galois theory: polynomials over a field, field extensions, constructibility; Galois groups of polynomials, in particular cubics; insolvability of quintics by radicals.

Prerequisite: MATC01H3
Exclusion: (MAT302H), MAT347Y, (MATC02H3)
Recommended Preparation: MATC34H3
Breadth Requirements: Quantitative Reasoning

MATD02H3 - Classical Plane Geometries and their Transformations

An introduction to geometry with a selection of topics from the following: symmetry and symmetry groups, finite geometries and applications, non-Euclidean geometry.

Prerequisite: [MATA22H3 or MATA23H3]
Corequisite: MATC01H3
Exclusion: MAT402H, (MAT365H), (MATC25H3)
Breadth Requirements: Quantitative Reasoning

MATD10H3 - Topics in Mathematics

A variety of topics from geometry, analysis, combinatorics, number theory and algebra, to be chosen by the instructor.

Prerequisite: MATC01H3 and [(MATC35H3) or MATC37H3] and [MATC15H3 or MATD02H3]

MATD11H3 - Topics in Mathematics

A variety of topics from geometry, analysis, combinatorics, number theory and algebra, to be chosen by the instructor.

Prerequisite: MATC01H3 and [(MATC35H3) or MATC37H3] and [MATC15H3 or MATD02H3]

MATD12H3 - Topics in Mathematics

A variety of topics from geometry, analysis, combinatorics, number theory and algebra, to be chosen by the instructor.

Prerequisite: MATC01H3 and [(MATC35H3) or MATC37H3] and [MATC15H3 or MATD02H3]

MATD16H3 - Coding Theory and Cryptography

The main problems of coding theory and cryptography are defined. Classic linear and non-linear codes. Error correcting and decoding properties. Cryptanalysis of classical ciphers from substitution to DES and various public key systems [e.g. RSA] and discrete logarithm based systems. Needed mathematical results from number theory, finite fields, and complexity theory are stated.

Prerequisite: MATC15H3 and STAB52H3
Exclusion: (MATC16H3)
Breadth Requirements: Quantitative Reasoning

MATD26H3 - Geometric Analysis and Relativity

An intuitive and conceptual introduction to general relativity with emphasis on a rigorous treatment of relevant topics in geometric analysis. The course aims at presenting rigorous theorems giving insights into fundamental natural phenomena. Contents: Riemannian and Lorentzian geometry (parallelism, geodesics, curvature tensors, minimal surfaces), Hyperbolic differential equations (domain of dependence, global hyperbolicity). Relativity (causality, light cones, inertial observes, trapped surfaces, Penrose incompleteness theorem, black holes, gravitational waves).

Prerequisite: MATC63H3
Exclusion: APM426H1
Breadth Requirements: Quantitative Reasoning

MATD34H3 - Complex Variables II

Applications of complex analysis to geometry, physics and number theory. Fractional linear transformations and the Lorentz group. Solution to the Dirichlet problem by conformal mapping and the Poisson kernel. The Riemann mapping theorem. The prime number theorem.

Prerequisite: MATB43H3 and MATC34H3
Exclusion: MAT354H, (MATC65H3)
Breadth Requirements: Quantitative Reasoning

MATD35H3 - Introduction to Discrete Dynamical Systems

This course provides an introduction and exposure to dynamical systems, with particular emphasis on low-dimensional systems such as interval maps and maps of the plane. Through these simple models, students will become acquainted with the mathematical theory of chaos and will explore strange attractors, fractal geometry and the different notions of entropy. The course will focus mainly on examples rather than proofs; students will be encouraged to explore dynamical systems by programming their simulations in Mathematica.

Prerequisite: [[MATA37H3 or MATA36H3] with a grade of B+ or higher] and MATB41H3 and MATC34H3
Breadth Requirements: Quantitative Reasoning

MATD44H3 - Topics in Combinatorics

This course will focus on combinatorics. Topics will be selected by the instructor and will vary from year to year.

Prerequisite: STAB52H3 and [MATC32H3 or MATC44H3]
Breadth Requirements: Quantitative Reasoning

MATD46H3 - Partial Differential Equations

This course provides an introduction to partial differential equations as they arise in physics, engineering, finance, optimization and geometry. It requires only a basic background in multivariable calculus and ODEs, and is therefore designed to be accessible to most students. It is also meant to introduce beautiful ideas and techniques which are part of most analysts' bag of tools.

Prerequisite: [[MATA37H3 or MATA36H]3 with grade of at least B+] and MATB41H3 and MATB44H3
Breadth Requirements: Quantitative Reasoning

MATD50H3 - Mathematical Introduction to Game Theory

This course introduces students to combinatorial games, two-player (matrix) games, Nash equilibrium, cooperative games, and multi-player games. Possible additional topics include: repeated (stochastic) games, auctions, voting schemes and Arrow's paradox. Numerous examples will be analyzed in depth, to offer insight into the mathematical theory and its relation to real-life situations.

Prerequisite: MATB24H3 and STAB52H3
Exclusion: MAT406H
Breadth Requirements: Quantitative Reasoning

MATD67H3 - Differentiable Manifolds

Manifolds, vector fields, tangent spaces, vector bundles, differential forms, integration on manifolds.

Prerequisite: MATB43H3
Exclusion: MAT367H1
Breadth Requirements: Quantitative Reasoning

MATD92H3 - Mathematics Project

A significant project in any area of mathematics. The project may be undertaken individually or in small groups. This course is offered by arrangement with a mathematics faculty member. This course may be taken in any session and the project must be completed by the last day of classes in the session in which it is taken.

Prerequisite: [1.5 credits at the C-level in MAT courses] and [permission of the Supervisor of Studies] and [a CGPA of at least 3.0 or enrolment in a Mathematics Subject POSt]
Breadth Requirements: Quantitative Reasoning
Note: Enrolment procedures: the project supervisor's note of agreement must be presented to the Supervisor of Studies who will issue permission for registration.

MATD93H3 - Mathematics Project

A significant project in any area of mathematics. The project may be undertaken individually or in small groups. This course is offered by arrangement with a mathematics faculty member. This course may be taken in any session and the project must be completed by the last day of classes in the session in which it is taken.

Prerequisite: [1.5 credits at the C-level in MAT courses] and [permission of the Supervisor of Studies] and [a CGPA of at least 3.0 or enrolment in a Mathematics Subject POSt]
Breadth Requirements: Quantitative Reasoning
Note: Enrolment procedures: the project supervisor's note of agreement must be presented to the Supervisor of Studies who will issue permission for registration.

MATD94H3 - Readings in Mathematics

Independent study under direction of a faculty member.

Prerequisite: [1.5 credits at the C-level in MAT courses] and [permission of the Supervisor of Studies] and [a CGPA of at least 3.0 or enrolment in a Mathematics Subject POSt]
Note: Enrolment procedures: the project supervisor's note of agreement must be presented to the Supervisor of Studies who will issue permission for registration.

MATD95H3 - Readings in Mathematics

Independent study under direction of a faculty member.

Prerequisite: [1.5 credits at the C-level in MAT courses] and permission of the Supervisor of Studies] and [a CPGA of at least 3.0 or enrolment in a Mathematics Subject POSt]
Note: Enrolment procedures: the project supervisor's note of agreement must be presented to the Supervisor of Studies who will issue permission for registration.

Media Studies

Faculty List

- R. Bai, B.A., M.A. (Beijing Foreign Studies), Ph.D. (Illinois), Associate Professor
- T.L. Cowan, B.A. (Simon Fraser), M.A., Ph.D. (Alberta), Assistant Professor
- D. Nieborg, B.A. (Utrecht), M.A. (Utrecht) Ph.D. (Amsterdam), Assistant Professor
- M. Petit, M.A., Ph.D. (Colorado), Assistant Professor, Teaching Stream
- J. Rault, B.A. (Alberta), M.A. (York), Ph.D. (McGill), Assistant Professor
- S. Yu, B.A. (Simon Fraser), M.I.S. (Yonsei), Ph.D. (Simon Fraser), Assistant Professor

ACM Program Manager: M. Hussain Email: manaal.hussain@utoronto.ca

Media are ubiquitous in contemporary society. Every aspect of human experience – the personal, social, economic, political, cultural, moral, and aesthetic – is mediated. We live in a world that is increasingly fragmented yet globally connected; a world saturated with fast-paced intensive online and mobile communication and the accompanying ads that pay for it; a world in which new documentary formats and interactive ways of knowing about the world such as Virtual Reality (VR) are appearing; a world in which YouTube, Snapchat and Social Media have replaced traditional network television for many as sources of news about current events and issues. We live in a world in which individuals and the cultural industries and institutions that produce, control, and disseminate media texts and images operate as consciousness industries that influence how we understand ourselves and the world around us. They compete for our attention 24/7, and the distinction between "everyday reality" and "media reality" is becoming increasingly blurred for many. At the same time, the development of digital technologies and the forms of new media they make possible, are in the process of destabilizing these very same cultural industries and institutions, including traditional understandings of the role of media and journalism in a democratic capitalist society.

Related Programs

Major (Joint) Program in New Media Studies

Students interested in systematic practice-based and industry-specific training in digital media design and communication should consider applying to the Major (Joint) Program in New Media Studies offered in partnership with Centennial College, and listed in the New Media Studies section of the *Calendar*. Interested students should complete the core first-year courses and submit a Supplementary Application form by the end of the Winter session, please refer to the New Media Studies Program website for details.

Specialist (Joint) Program in Journalism

Students interested in systematic practice-based and industry-specific training as a journalist should consider applying to the Specialist (Joint) Program in Journalism, offered in partnership with Centennial College, and listed in the Journalism section of the *Calendar*. Interested students should contact the ACM Program Manager.

Notes:

1. Students cannot combine the Minor Program in Media Studies with the Major Program in Media Studies (any of the two streams).
2. Students are strongly encouraged not to combine the Major Program in Media, Journalism and Digital Cultures – Media Studies Stream with the Major Program in Media, Journalism and Digital

Cultures – Journalism Stream.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Media Studies Programs

MAJOR PROGRAM IN MEDIA, JOURNALISM AND DIGITAL CULTURES (ARTS)

Undergraduate Advisor: Email: mds-undergrad-advisor@utsc.utoronto.ca

In the context of the complexity of the contemporary media environment and journalism's central role in how information is disseminated, the Major in Media, Journalism and Digital Cultures has two streams: Media Studies and Journalism Studies. Through common core courses and courses unique to each stream, students consider the ubiquity of media in contemporary society and examine media's cultural, political, economic, and social implications. Because media is centrally placed as a means through which democratic discussion occurs in the public sphere, the development of media literacy skills is crucial in maintaining an informed citizenry and paramount to students' individual empowerment.

As media scholar W. James Potter has written: "Becoming more media literate gives you a much clearer perspective to see the border between your real world and the world manufactured by the media. When you are media literate, you have clear maps to help you navigate better in the media world so that you can get to those experiences and information you want without becoming distracted by those things that harm you." (Media Literacy, 2012)

The **Media Studies Stream** offers students theoretical and critical thinking tools to examine what it means to live in a highly-mediated, media-focused visual and auditory culture. Students study how media works in today's world at local, regional and global scales; the history of media and technology and its development and use across different cultures; how media industries manufacture, manage, and disseminate information; and how media form and content shape knowledge and meaning from historical, philosophical, cinematic and artistic perspectives, among many others. In studying media, students hone their media literacy skills and learn to critically evaluate the content of media and analyze its underlying ideologies and their implications within the cultural, political, economic, and social realms.

While all forms of journalism are examples of media, not all media are journalistic in nature. The **Journalism Studies Stream** is ideal for students who are interested in studying media with a specific focus on journalism, the news media industry, as well as journalism's form, function and meaning in a global and democratic society. It offers a comprehensive program of study and research with an emphasis on scholarly, conceptual understandings of journalism, including how journalism functions as an agent of change. It provides students a critical understanding of the role of journalism, its relationship to new technologies, and how cultures of information sharing are in the process of social change and what this means from cultural, political, economic, and social points of view. In critically studying journalism, students hone their media literacy skills to comprehend, navigate, and adapt to

today's complicated and ever changing media environment, whether as journalists, policy advocates, or simply as informed citizens.

Guide to Course Selection
The Media Studies and Journalism Studies streams require 4.0 credits as a common core. During their first year, students in both streams should take ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs, MDSA01H3 Introduction to Media Studies, and MDSA02 History of Media. Students in the Journalism Studies stream should also take JOUA01H3 Introduction to Journalism and News Literacy I and JOUA02H3 Introduction to Journalism II.

Program Requirements
Students must complete 8.0 credits including 2.0 credits at the C- or D-level:

Core (4.0 credits)

1. Introductory Courses (2.0 credits):
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
ACMB02H3 Methods of Inquiry and Investigation for ACM Programs
MDSA01H3 Introduction to Media Studies
MDSA02H3 History of Media

2. 0.5 credit from the following:
MDSB05H3 Media and Globalization
MDSB25H3 Political Economy of Media

3. 0.5 credit from the following:
MDSB61H3 Mapping New Media
MDSB62H3 Visual Culture and Communication
MDSB63H3 Sound and Visual Media

4. 1.0 credit from the following:
MDSC01H3 Theories in Media Studies
MDSC02H3 Media, Identities and Politics
MDSC61H3 Alternative Media

Media Studies Stream (4.0 credits)

5. 0.5 credit from the following:
MDSD01H3 Senior Seminar: Topics in Media and Arts
MDSD02H3 Senior Seminar: Topics in Media and Society
MDSD11H3/JOUD11H3 Senior Research Seminar in Media and Journalism Research

6. 3.5 additional credits in MDS courses

Journalism Studies Stream (4.0 credits)

5. 1.0 credit as follows:
JOUA01H3 Introduction to Journalism and News Literacy I
JOUA02H3 Introduction to Journalism II

6. 2.0 credits as follows:
JOUB01H3 Covering Immigration and Transnational Issues

JOUB02H3 Critical Journalism
JOUB24H3 Journalism in the Age of Digital Media
JOUB39H3 Fundamentals of Journalistic Writing

7. 0.5 credit from the following:
JOUC30H3 Critical Approaches to Style, Form and Narrative
JOUC31H3 Journalism, Information Sharing and Technological Change
JOUC62H3 Media, Journalism and Digital Labour
JOUC63H3 Media Ethics

8. JOUD11H3/MDSD11H3 Senior Research Seminar in Media and Journalism

MINOR PROGRAM IN MEDIA STUDIES (ARTS)

Undergraduate Advisor: Email: mds-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits including 1.0 credit at the C- or D-level:

1. 1.0 credit from the following:
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
MDSA01H3 Introduction to Media Studies

2. 0.5 credit from the following:
MDSA02H3 History of Media
MDSB05H3 Media and Globalization

3. 0.5 credit from the following:
MDSB61H3 Mapping New Media
MDSB62H3 Visual Culture and Communication
MDSB63H3 Sound and Visual Media

4. 2.0 additional credit in MDS courses

Media Studies Courses

MDSA01H3 - Introduction to Media Studies

Introduces students to key terms and concepts in media studies and provides an overview of theoretical and critical understandings of media. Students develop their understanding of the political, economic, social and cultural contexts in which mediated images and texts are produced, distributed, and consumed.

Exclusion: (NMEA20H3)
Breadth Requirements: History, Philosophy & Cultural Studies

MDSA02H3 - History of Media

This course surveys the history of media and communication from the development of writing through the printing press, newspaper, telegraph, radio, film, television and internet. Students examine the complex interplay among changing media technologies and cultural, political and social changes, from the rise of a public sphere to the development of highly-mediated forms of self identity.

Prerequisite: MDSA01H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSB01H3 - Human, Animal, Machine

What makes humans humans, animals animals, and machines machines? This course probes the leaky boundaries between these categories through an examination of various media drawn from science fiction, contemporary art, film, TV, and the critical work of media and posthumanist theorists on cyborgs, genetically-modified organisms, and other hybrid creatures.

Corequisite: MDSA01H3
Exclusion: (IEEB01H3)
Breadth Requirements: History, Philosophy & Cultural Studies

MDSB03H3 - Advertising and Consumer Culture

This course introduces students to the study of advertising as social communication and provides a historical perspective on advertising's role in the emergence and perpetuation of "consumer culture". The course examines the strategies employed to promote the circulation of goods as well as the impact of advertising on the creation of new habits and expectations in everyday life.

Prerequisite: MDSA01H3 or SOCB58H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSB05H3 - Media and Globalization

This course examines the role of technological and cultural networks in mediating and facilitating the social, economic, and political processes of globalization. Key themes include imperialism, militarization, global political economy, activism, and emerging media technologies. Particular attention is paid to cultures of media production and reception outside of North America.

Same as GASB05H3

Prerequisite: 4.0 credits and MDSA01H3
Exclusion: GASB05H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSB09H3 - Kids These Days: Youth, Language and Media

Around the world, youth is understood as liminal phase in our lives. This course examines how language and new media technologies mark the lives of youth today. We consider social media, smartphones, images, romance, youth activism and the question of technological determinism. Examples drawn fromm a variety of contexts. Same as ANTB35H3

Prerequisite: ANTA02H3 or MDSA01H3 or [any 4.0 credits in ANT, HLT, IDS, CIT, GGR, POL, SOC or HCS courses]
Exclusion: ANTB35H3
Breadth Requirements: Arts, Literature & Language

MDSB10H3 - Technology, Culture and Society

This course considers technology as an everyday social practice. It challenges deterministic ideas of technology as a cause of social change and examines theories that understand technology and culture as mutually constituted. Perspectives include actor-network theory, critical theory of technology, feminist technology studies, media archaeology, and cyber-, post- and transhumanism.

Prerequisite: MDSA01H3 and MDSA02H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSB15H3 - Social Media, Platform Politics and Digital Cultures

This course focuses on the technological, social, cultural, and political-economic organization of media and communication by critically engaging with social media, digital platforms, and apps. The dominance of platforms operated by Google, Apple, Facebook, and Amazon raises questions about platform politics and how platform owners engineer sociality and digital culture.

Prerequisite: ACMB01H3 and [[MDSA01H3 and MDSA02H3] or [JOUA01H3 and JOUA02H3]]
Breadth Requirements: History, Philosophy & Cultural Studies

MDSB25H3 - Political Economy of Media

This course follows money in media industries. It introduces a variety of economic theories and methods to analyse cultural production and circulation, and the organization of media and communication companies. These approaches are used to better understand the political economy of digital platforms, apps, television, film, and games.

Prerequisite: MDSA01H3 and MDSA02H3
Breadth Requirements: Arts, Literature & Language

MDSB61H3 - Mapping New Media

This course introduces students to the key terms and concepts in new media studies as well as approaches to new media criticism. Students examine the myriad ways that new media contribute to an ongoing reformulation of the dynamics of contemporary society, including changing concepts of community, communication, identity, privacy, property, and the political.

Prerequisite: MDSA01H3 and MDSA02H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSB62H3 - Visual Culture and Communication

Visual Culture studies the construction of the visual in art, media, technology and everyday life. Students learn the tools of visual analysis; investigate how visual depictions such as YouTube and advertising structure and convey ideologies; and study the institutional, economic, political, social, and market factors in the making of contemporary visual culture.

Prerequisite: MDSA01H3 and MDSA02H3
Exclusion: (NMEB20H3)
Breadth Requirements: Arts, Literature & Language

MDSB63H3 - Sound and Visual Media

This course explores the importance of sound and sound technology to visual media practices by considering how visuality in cinema, video, television, gaming, and new media art is organized and supported by aural techniques such as music, voice, architecture, and sound effects.

Prerequisite: MDSA01H3 and MDSA02H3
Breadth Requirements: Arts, Literature & Language

MDSC01H3 - Theories in Media Studies

This is an advanced seminar for third and fourth year students on theories applied to the study of media.

Prerequisite: ACMB01H3 and 2.0 credits at the B-level in MDS courses
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC02H3 - Media, Identities and Politics

This course explores the centrality of mass media such as television, film, the Web, and mobile media in the formation of multiple identities and the role of media as focal points for various cultural and political contestations.

Prerequisite: ACMB01H3 and 2.0 credits at the B-level in MDS courses
Breadth Requirements: Social & Behavioural Sciences

MDSC21H3 - Anthropology of Language and Media

Anthropology studies language and media in ways that show the impact of cultural context. This course introduces this approach and also considers the role of language and media with respect to intersecting themes: ritual, religion, gender, race/ethnicity, power, nationalism, and globalization. Class assignments deal with lectures, readings, and students' examples.
Same as ANTC59H3

Prerequisite: [ANTB19H3 and ANTB20H3] or [MDSA01H3 and MDSB05H3 and ACMB01H3]
Exclusion: (MDSB02H3), (ANTB21H3), ANTC59H3
Breadth Requirements: Arts, Literature & Language

MDSC35H3 - Understanding Scandals

This course focuses on modern-day scandals, ranging from scandals of politicians, corporate CEOs, and celebrities to scandals involving ordinary people. It examines scandals as conditioned by technological, social, cultural, political, and economic forces and as a site where meanings of deviances of all sorts are negotiated and constructed. It also pays close attention to media and journalistic practices at the core of scandals.

Prerequisite: ACMB01H3 and [[MDSA01H3 and MDSA02H3] or [JOUA01H3 and JOUA02H3]]
Exclusion: SOC342H5
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC40H3 - Chinese Media and Politics

This course examines the complex and dynamic interplay of media and politics in contemporary China and the role of the government in this process.
Same as GASC40H3

Prerequisite: 4.0 credits including ACMB01H3
Exclusion: GASC40H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC41H3 - Media and Popular Culture in East Asia

This course introduces students to media industries and commercial popular cultural forms in East Asia. Topics include reality TV, TV dramas, anime and manga, as well as issues such as regional cultural flows, global impact of Asian popular culture, and the localization of global media in East Asia.
Same as GASC41H3

Prerequisite: 4.0 credits including ACMB01H3
Exclusion: GASC41H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC53H3 - Anthropology of Media and Publics

How do media work to circulate texts, images, and stories? Do media create unified publics? How is the communicative process of media culturally-distinct? This course examines how anthropologists have studied communication that occurs through traditional and new media. Ethnographic examples drawn from several contexts.
Same as ANTC53H3

Prerequisite: [ANTB19H3 and ANTB20H3] or [MDSA01H3 and MDSB05H3 and ACMB01H3]
Exclusion: ANTC53H3
Enrolment Limits: 60
Breadth Requirements: Arts, Literature & Language

MDSC60H3 - Diasporic Media

New media technologies enable more production and distribution of culturally, ethnically and linguistically diverse voices than ever before. Who produces these diverse voices and how accessible are these media? This course explores various types of diasporic media from century-old newspapers to young and hip news and magazine blogs, produced by and for members of a multicultural society.

Same as JOUC60H3

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [2.0 credits at the B-level in JOU courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Exclusion: JOUC60H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC61H3 - Alternative Media

This course examines the history, organization and social role of a range of independent, progressive, and oppositional media practices. It emphasizes the ways alternative media practices, including the digital, are the product of and contribute to political movements and perspectives that challenge the status quo of mainstream consumerist ideologies.

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [2.0 credits at the B-level in JOU courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC62H3 - Media, Journalism and Digital Labour

This course explores themes of labour in *news* media and *new* media. Topics include labour conditions for media workers across sectors; the labour impacts of media convergence; and the global distribution of media labour including content generation and management. The course is structured by intersectional analyses, studying how race and racism, class, gender, sex and sexism, sexuality, nationality, global location and citizenship status, Indigeneity and religion shape our experiences of media, journalism and labour.

Same as JOUC62H3

Prerequisite: ACMB01H3 and [[MDSA01H3 and MDSB05H3] or [JOUA01H3 and JOUA02H3]] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Exclusion: JOUC62H3
Breadth Requirements: Arts, Literature & Language

MDSC63H3 - Media Ethics

Introduces students to ethical issues in media. Students learn theoretical aspects of ethics and apply them to media industries and practices in the context of advertising, public relations, journalism, mass media entertainment, and online culture.
Same as JOUC63H3

Prerequisite: ACMB01H3 and [[MDSA01H3 and MDSB05H3] or [JOUA01H3 and JOUA02H3]]
Exclusion: JOUC63H3
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC64H3 - Media and Technology

Media are central to organizing cultural discourse about technology and the future. This course examines how the popularization of both real and imagined technologies in various media forms contribute to cultural attitudes that attend the introduction and social diffusion of new technologies.

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Breadth Requirements: Arts, Literature & Language

MDSC65H3 - Games and Play

This course introduces students to academic perspectives on games and play. Students develop a critical understanding of a variety of topics and discussions related to games, gamification, and play in the physical and virtual world.

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Breadth Requirements: Arts, Literature & Language

MDSC66H3 - Selfies and the Selfie Culture

Selfies are an integral component of contemporary media culture and used to sell everyone from niche celebrities to the Prime Minister. This class examines the many meanings of selfies to trace their importance in contemporary media and digital cultures as well as their place within, and relationship to, historically and theoretically grounded concepts of photography and self portraiture.

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [2.0 credits at the B-level in JOU courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC71H3 - Media and Religion

The advancement of religious concepts and movements has consistently been facilitated - and contested - by contemporaneous media forms, and this course considers the role of media in the creation, development, and transmission of religion(s), as well as the challenges posed to modern religiosities in a digital era.

Prerequisite: ACMB01H3 and 2.0 credits at the B-level in MDS courses
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC80H3 - Understanding Audiences in the Digital Age

Understanding the interests and goals of audiences is a key part of media production. This course introduces communication research methods including ratings, metrics, in-depth interviews, and focus groups. The focus of class discussion and research project is to use these methods to be able to understand the nature of audiences' media use in the digital age.

Same as JOUC80H3

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [2.0 credits at the B-level in JOU courses] or [4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses]]
Exclusion: JOUC80H3
Enrolment Limits: 45
Breadth Requirements: History, Philosophy & Cultural Studies

MDSC85H3 - Movies, Music and Meaning

This course examines the synergistic relationship between the moving image and music and how these synergies result in processes of meaning-making and communication. Drawing on readings in cultural theory, cultural studies, musicology and film studies, the course considers examples from the feature film, the Hollywood musical, and the animated cartoon.
Same as VPMC85H3

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [2.0 credits at the B-level in VPM courses]]
Exclusion: VPMC85H3
Enrolment Limits: 50
Breadth Requirements: Arts, Literature & Language
Note: No specialist knowledge in musicology or film studies required.

MDSD01H3 - Senior Seminar: Topics in Media and Arts

This is a senior seminar that focuses on the connections among media and the arts. Students explore how artists use the potentials offered by various media forms, including digital media, to create new ways of expression. Topics vary.

Prerequisite: [3.0 credits in MDS courses, including 1.0 credit at the C-level]

MDSD02H3 - Senior Seminar: Topics in Media and Society

This is a senior seminar that focuses on media and society. It explores the social and political implications of media, including digital media, and how social forces shape their development. Topics vary.

Prerequisite: [3.0 credits in MDS courses, including 1.0 credit at the C-level]

MDSD11H3 - Senior Research Seminar in Media and Journalism

Focusing on independent research, this course requires students to demonstrate the necessary analysis, research and writing skills required for advanced study. This seminar course provides the essential research skills for graduate work and other research-intensive contexts. Students will design and undertake unique and independent research about the state of journalism.
Same as JOUD11H3

Prerequisite: ACMB02H3 and [an additional 4.5 credits in MDS or JOU courses, 1.0 credit of which must be at the C-level]
Exclusion: JOUD11H3
Breadth Requirements: Arts, Literature & Language

Music and Culture

Faculty List

- W.R. Bowen, M.A., Ph.D. (Toronto), Associate Professor, Emeritus
- M. Campbell, B. Ed. (York), M.A. (York), Ph.D. (Toronto), Assistant Professor
- R.Mantie, B.Mus.Ed, M.Mus.Ed.(Brandon), Ph.D.(Toronto), Associate Professor
- A. Rapoport, Mus.M., Mus.Doc. (Toronto), Senior Lecturer
- L. Risk, B.A. (UC Berkeley), M.A. (McGill), Ph.D. (McGill), Assistant Professor
- A. Stanbridge, M.A. (Wolverhampton), Ph.D. (Carleton), Associate Professor
- K. Suzuki, B.Mus. (Indiana), D.M.A. (Stanford), Associate Professor
- L.C. Tucker, B.Mus., B.Mus.Ed. (Memorial), M.Mus.Mus.Ed, M.Mus. Perf. (Wisconsin-Madison), Associate Professor, Teaching Stream

ACM Program Manager: M. Hussain Email: manaal.hussain@utoronto.ca

Music and Culture offers innovative programs that focus on music as it is experienced and lived today in all its diversity and complexity. Here, music is studied in courses that draw on a broad range of theoretical perspectives and methodologies coupled with active listening and reflective practice in composition and performance. Our goal is to foster a critical understanding of music and culture in a global context, including opportunities for fieldwork and community music-making.

Our programs lay the foundation for further studies at the undergraduate level as well as graduate studies in music and professional careers in areas related to music. They complement studies in many fields, including Adult Education and Community Development, Arts Management, City Studies, Computer Science, Health Studies, Historical and Cultural Studies, Media Arts, Media Studies, Music Education, Psychology, Sociology, Studio Art, and Visual Studies. And they are ideally suited for those interested in music as part of lifelong learning and engagement.
Students are cautioned that some courses in Music and Culture (VPM) may include Ancillary fees.

Performance Courses
The following performance courses are available to all qualified students, alumni, staff and faculty, some on a non-credit basis. Entrance is by interview/audition held during the first week of classes in the semester the courses are offered. For more details, please visit the Music Performance Ensembles Audition Information and FAQs website. Credit students should register for courses; however, admission approval will be based on the successful completion of the interview/audition.

UTSC Performance Courses
String Orchestra: VPMA66H3; VPMA67H3; VPMB66H3; VPMB67H3; VPMC66H3; VPMC67H3
Small Ensemble: VPMA68H3; VPMA69H3; VPMB68H3; VPMB69H3; VPMC68H3; VPMC69H3
Concert Choir: VPMA70H3; VPMA71H3; VPMB70H3; VPMB71H3; VPMC70H3; VPMC71H3

UTSC Performance Courses
Concert Band: VPMA73H3; VPMA74H3; VPMB73H3; VPMB74H3; VPMC73H3; VPMC74H3

General Interest Courses
VPMA93H3, and VPMA95H3, assume no previous experience in music.

Planning a Program in Music
Music studies normally begin with VPMA95H3 and A-level performance courses, which serve as the foundation for more advanced studies. Students planning to pursue a Major or Minor Program in Music and Culture are strongly advised to meet with the ACM Program Manager at the start of their second year for advice on the completion of their Program requirements.

The program offers three areas of focus. Students are encouraged to develop the depth of learning through study in one or two areas of focus as follows:

Music and Culture Areas of Focus Table:

Music and Society	Community Music	Music Cre and Techn
VPMC85H3 VPMC89H3 VPMC94H3 VPMC95H3 VPMD90H3	VPMB01H3 [VPMB66H3 or VPMB68H3 or VPMB70H3 or VPMB73H3] [VPMB67H3 or VPMB69H3 or VPMB71H3 or VPMB74H3] VPMC01H3 VPMC78H3 VPMD01H3	VPMB91H3 VPMC90H3 VPMC91H3 VPMC97H3 VPMD91H3

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Music And Culture Programs

MAJOR PROGRAM IN MUSIC AND CULTURE (ARTS)

ACM Program Manager: acm-pa@utsc.utoronto.ca

Program Requirements
Students are required to complete 8.0 credits as follows:

1. Courses at the A-level (1.5 credits)
VPMA95H3 Elementary Musicianship

and
1.0 credit in Performance (Students must choose the graded option for this credit)

2. Courses at the B-level (2.0 credits)
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
VPMB01H3 Introduction to Community Music
VPMB82H3 Music in the Contemporary World
VPMB88H3 Materials of Music I

3. Courses at the C-level (0.5 credit)
VPMC88H3 Topics in Music and Culture

4. 4.0 additional credits in Music and Culture (VPM) courses, at least 1.5 of which must be at the C-level, and at least 0.5 of which must be at the D-level.

Students are encouraged to develop depth of learning through study in one or two of the areas of focus described in the Music and Culture Areas of Focus Table.

Students can count a maximum of 2.0 credits of Performance courses toward component 4 of the program completion requirements. Students who count Performance courses towards component 4 must choose the graded option.

MINOR PROGRAM IN MUSIC AND CULTURE (ARTS)

ACM Program Manager: acm-pa@utsc.utoronto.ca

Program Requirements
Students are required to complete 4.0 full credits as follows:

1. Courses at the A-level (1.0 credit)
VPMA95H3 Elementary Musicianship I
and
0.5 credit in Performance (Students must choose the graded option for this credit)

2. Courses at the B-level (1.5 credits)
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
and 1.0 credit from the following list:
VPMB01H3 Introduction to Community Music
VPMB82H3 Music in the Contemporary World
VPMB88H3 Materials of Music I

3. 1.5 additional credits in Music and Culture (VPM) courses, of which at least 1.0 credit must be at the C- and/or D-level.*

Students can count a maximum of 1.0 credit of Performance courses toward this 3 program completion requirements. Students who count Performance courses must choose the graded option.

*Students must consult with the Program Manager (acm-pa@utsc.utoronto.ca) regarding the selection of the courses to fulfill this program requirement.

Music And Culture Courses

VPMA66H3 - String Orchestra Ia

The practical study of instrumental ensemble performance in the String Orchestra setting. Audition/interview required. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Exclusion: VPMA73H3-LEC02
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to student enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMA67H3 - String Orchestra 1b

The practical study of instrumental ensemble performance in the String Orchestra setting. Audition/interview required. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMA66H3
Exclusion: VPMA74H3-LEC02
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMA68H3 - Small Ensemble Ia

The practical study of small ensemble performance, including public presentations and group recitals. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Enrolment Limits: 40
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMA69H3 - Small Ensemble Ib

The practical study of small ensemble performance, including public presentations and group recitals. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble. Audition/interview required.

Prerequisite: VPMA68H3
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMA70H3 - Concert Choir Ia

The practical study of vocal ensemble performance. Audition/Interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Breadth Requirements: Arts, Literature & Language

VPMA71H3 - Concert Choir Ib

A continuation of VPMA70H3
The practical study of vocal ensemble performance. Audition/Interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMA70H3
Breadth Requirements: Arts, Literature & Language

VPMA73H3 - Concert Band Ia

The practical study of instrumental ensemble performance. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Exclusion: (VPMA92H3)
Breadth Requirements: Arts, Literature & Language

VPMA74H3 - Concert Band Ib

A continuation of VPMA73H3.
The practical study of instrumental ensemble performance. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMA73H3
Exclusion: (VPMA92H3)
Breadth Requirements: Arts, Literature & Language

VPMA93H3 - Listening to Music

An introduction to Western music through active listening and the consideration of practical, cultural, historical and social contexts that shape our aural appreciation of music. No previous musical experience is necessary.

Breadth Requirements: History, Philosophy & Cultural Studies

VPMA95H3 - Elementary Musicianship I

A practical introduction to musicianship and music rudiments through the development of basic vocal or instrumental techniques and an emphasis on aural skills. This course is open to students with no musical training and background.

Breadth Requirements: Arts, Literature & Language

VPMB01H3 - Introduction to Community Music

Music within communities functions in ways that differ widely from formal models. Often the defining activity, it blurs boundaries between amateur, professional, audience and performer, and stresses shared involvement. Drawing upon their own experience, students will examine a variety of community practices and current research on this rapidly evolving area.

Prerequisite: VPMA95H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMB02H3 - Music Facilitation and Learning

This course introduces the theory and practice of music facilitation. Students will develop practical skills in music leadership, along with theoretical understandings that distinguish education, teaching, facilitation, and engagement as they occur in formal, informal, and non-formal spaces and contexts.

Prerequisite: VPMB01H3
Recommended Preparation: Prior musical experience is recommended
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMB66H3 - String Orchestra IIa

The practical study of instrumental ensemble performance in the String Orchestra setting. Audition/interview required. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMA67H3
Exclusion: VPMB73H3-LEC02
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMB67H3 - String Orchestra IIb

The practical study of instrumental ensemble performance in the String Orchestra setting. Audition/interview required. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMB66H3
Exclusion: VPMB74H3-LEC02
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMB68H3 - Small Ensemble IIa

The practical study of small ensemble performance, including public presentations and group recitals. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMA69H3
Enrolment Limits: 40
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMB69H3 - Small Ensemble IIb

The practical study of small ensemble performance, including public presentations and group recitals. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble. Audition/interview required.

Prerequisite: VPMB68H3
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMB70H3 - Concert Choir IIa

A continuation of VPMA71H3.
The practical study of vocal ensemble performance. Audition/Interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMA71H3
Breadth Requirements: Arts, Literature & Language

VPMB71H3 - Concert Choir IIb

A continuation of VPMB70H3.
The practical study of vocal ensemble performance. Audition/Interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMB70H3
Breadth Requirements: Arts, Literature & Language

VPMB73H3 - Concert Band IIa

A continuation of VPMA74H3.
The practical study of instrumental ensemble performance. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMA74H3 or (VPMA92H3)
Exclusion: (VPMB92H3)
Breadth Requirements: Arts, Literature & Language

VPMB74H3 - Concert Band IIb

A continuation of VPMB73H3.
The practical study of instrumental ensemble performance. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMB73H3
Exclusion: (VPMB92H3)
Breadth Requirements: Arts, Literature & Language

VPMB82H3 - Music in the Contemporary World

An examination of art and popular musics. This course will investigate the cultural, historical, political and social contexts of music-making and practices as experienced in the contemporary world.

Breadth Requirements: History, Philosophy & Cultural Studies

VPMB88H3 - Materials of Music I

The basic materials of music from the Middle Ages to the present, including elementary harmony, musical forms, introductory analytical and compositional techniques and aural training.

Prerequisite: [VPMA95H3 or [Grade 12 Music or equivalent]] and [0.5 credit in Performance]
Exclusion: (VPMA90H3)
Breadth Requirements: Arts, Literature & Language

VPMB90H3 - Materials of Music II

Further study of the basic materials of music with increased emphasis on composition.

Prerequisite: VPMB88H3
Breadth Requirements: Arts, Literature & Language

VPMB91H3 - Music and Technology

A comprehensive study of the technologies in common use in music creation, performance and teaching. This course is lab and lecture based.

Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMC01H3 - Exploring Community Music

Our local communities are rich with music-making engagement. Students will critically examine community music in the GTA through the lenses of intergenerational music-making, music and social change, music and wellbeing, and interdisciplinary musical engagement. Off-campus site visits are required.

Prerequisite: ACMB01H3 and VPMB01H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMC02H3 - Music, Health, and Wellness

This course introduces the histories, contexts, and theories of music in relation to health and wellness. Students will develop deeper understandings of how music can be used for therapeutic and non-therapeutic purposes.

Prerequisite: Any 7.0 credits
Recommended Preparation: Prior musical experience is recommended
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Minor and Major programs in Music and Culture. Additional students will be admitted as space permits.

VPMC65H3 - Critical Issues in Music and Society

An investigation into significant issues in music and society. Topics will vary but may encompass art, popular and world music. Issues may include music's relationship to technology, commerce and industry, identity, visual culture, and performativity. Through readings and case studies we consider music's importance to and place in society and culture.

Prerequisite: VPMB82H3 and [1.0 credit at the B-level in VPM courses]
Exclusion: (VPMD90H3)
Breadth Requirements: History, Philosophy & Cultural Studies

VPMC66H3 - String Orchestra IIIa

The practical study of instrumental ensemble performance in the String Orchestra setting. Audition/interview required. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMB67H3
Exclusion: VPMC73H3-LEC02
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMC67H3 - String Orchestra IIIb

The practical study of instrumental ensemble performance in the String Orchestra setting. Audition/interview required. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMC66H3
Exclusion: VPMC74H3-LEC02
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMC68H3 - Small Ensemble IIIa

The practical study of small ensemble performance, including public presentations and group recitals. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMB69H3
Enrolment Limits: 40
Breadth Requirements: Arts, Literature & Language
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMC69H3 - Small Ensemble IIIb

The practical study of small ensemble performance, including public presentations and group recitals. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble. Audition/interview required.

Prerequisite: VPMC68H3
Breadth Requirements: Arts, Literature & Language

VPMC70H3 - Concert Choir IIIa

A continuation of VPMB71H3.
The practical study of vocal ensemble performance. Audition/Interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMB71H3
Breadth Requirements: Arts, Literature & Language

VPMC71H3 - Concert Choir IIIb

A continuation of VPMC70H3.
The practical study of vocal ensemble performance. Audition/Interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMC70H3
Breadth Requirements: Arts, Literature & Language

VPMC73H3 - Concert Band IIIa

A continuation of VPMB74H3.
The practical study of instrumental ensemble performance. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMB74H3 or (VPMB92H3)
Exclusion: (VPMC92H3)
Breadth Requirements: Arts, Literature & Language

VPMC74H3 - Concert Band IIIb

A continuation of VPMC73H3.
The practical study of instrumental ensemble performance. Audition/interview required. Students may participate in more than one ensemble concurrently with a limit of 3.0 credits in total. Students are normally expected to complete both Fall and Winter sessions (a and b) in the same ensemble.

Prerequisite: VPMC73H3
Exclusion: (VPMC92H3)
Breadth Requirements: Arts, Literature & Language

VPMC78H3 - Balinese Gamelan: Performance and Context

An introduction to the repertory and performance of Balinese Gamelan. Combines practical music-making and academic study. Students will learn to play the Balinese Gamelan - an orchestra of bronze percussion instruments - and examine the integral function of gamelan in Balinese cultural, ceremonial, and religious life.

Prerequisite: ACMB01H3 and an additional 1.0 credit at the B-level in VPM courses
Exclusion: (VPMB78H3)
Breadth Requirements: Arts, Literature & Language

VPMC85H3 - Movies, Music and Meaning

This course examines the synergistic relationship between the moving image and music and how these synergies result in processes of meaning-making and communication. Drawing on readings in cultural theory, cultural studies, musicology and film studies, the course considers examples from the feature film, the Hollywood musical, and the animated cartoon.
Same as MDSC85H3

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in MDS courses] or [2.0 credits at the B-level in VPM courses]]
Exclusion: MDSC85H3
Enrolment Limits: 50
Breadth Requirements: Arts, Literature & Language
Note: No specialist knowledge in musicology or film studies required.

VPMC88H3 - Topics in Music and Culture

The investigation of an area of current interest and importance in musical scholarship. The topic to be examined will change from year to year and will be available in advance on the ACM department website.

Prerequisite: ACMB01H3 and VPMB82H3 and [an additional 0.5 credit at the B-level in VPM courses]
Breadth Requirements: History, Philosophy & Cultural Studies

VPMC90H3 - Materials of Music III

More advanced study of the materials of music with an emphasis on composition.

Prerequisite: VPMB90H3 and [an additional 1.0 credit at the B-level in VPM courses]
Breadth Requirements: Arts, Literature & Language

VPMC91H3 - Electronic Music I

An introduction to understanding electronic, electroacoustic and computer generated music and developing creative skills in these media through theoretical, aesthetic, and practical perspectives. This course is lab and lecture based.

Prerequisite: ACMB01H3 and VPMB90H3 and [an additional 1.0 credit at the B-level in VPM courses]
Recommended Preparation: VPMB82H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPMC94H3 - Jazz

A history of jazz from its African and European roots to present day experiments. Surveys history of jazz styles, representative performers and contexts of performance.

Prerequisite: ACMB01H3 and [1.0 credit at the B-level in VPM courses]
Breadth Requirements: History, Philosophy & Cultural Studies

VPMC95H3 - Musical Diasporas

This course examines the unique role of music and the arts in the construction and maintenance of transnational identity in the diaspora. Examples under study will cover a wide range of communities (e.g. Asian, Caribbean and African) and places.

Prerequisite: ACMB01H3 and an additional 1.0 credit at the B-level in VPM courses
Breadth Requirements: Social & Behavioural Sciences

VPMC97H3 - Music, Technologies, Media

An exploration of music's relationships to media and technology, and how these shape musical practices, consumption, and understanding in historical and contemporary contexts. Topics include music printing, music journalism, development of acoustic, mechanical, and electronic instruments, the recording industry, radio, electroacoustic and computer composition, and digital dissemination via the internet.

Prerequisite: ACMB01H3 and [[2.0 credits at the B-level in VPM courses] or [2.0 credits at the B-level in MDS courses]]
Breadth Requirements: History, Philosophy & Cultural Studies
Note: No specialist knowledge in music or media studies required.

VPMD01H3 - Senior Seminar: Music in Our Communities

Through advanced studies in community music, students will combine theory and practice through intensive weekly seminar-style discussions and an immersive service-learning placement with a community music partner from the Eastern GTA. Off-campus site visits are required.

Prerequisite: VPMC01H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major and Minor programs in Music and Culture. Additional students will be admitted as space permits.

VPMD02H3 - Music and Culture Senior Project

This course will help students develop their self-directed projects that will further their research and interests. This project is intended to function as a capstone in the Major program in Music and Culture, reflecting rigorous applied and/or theoretical grounding in one or more areas of focus in the Music and Culture program.

Prerequisite: VPMC88H3 and [an additional 0.5 credit at the C-level in VPM courses]
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPMD80H3 - Independent Study in Music

A directed research, composition or performance course for students who have demonstrated a high level of academic maturity and competence. Students in performance combine a directed research project with participation in one of the performance ensembles.
Note: Students must submit a proposed plan of study for approval in the term prior to the beginning of the course, and must obtain consent from the supervising instructor and the Music Program Director.

Prerequisite: A minimum overall average of B+ in VPM courses, and at least 1.0 full credit in music at the C-level. Students in the Composition option must also have completed VPMC90H3. Students in the Performance/research option must complete at least one course in performance at the C-level.

VPMD91H3 - Electronic Music II

More advanced study in electronic, electroacoustic and computer-generated music with emphasis on electroacoustic composition. This course is primarily lab-based.

Prerequisite: VPMC91H3 and [an additional 0.5 credit at the C-level in VPM courses]
Breadth Requirements: Arts, Literature & Language

Neuroscience

Faculty List

- M. Arruda-Carvalho, B.Sc. (Rio de Janeiro), M.Sc. (Rio de Janeiro), Ph.D. (Toronto), Assistant Professor
- R. Boonstra, B.Sc. (Calgary), Ph.D. (British Columbia), Professor, Emeritus
- I.R. Brown, B.Sc. (Carleton), Ph.D. (Texas), Professor
- J.S. Cant, B.A., M.Sc., Ph.D. (Western), Associate Professor
- S. Erb, B.Sc. (Wilfrid Laurier), M.A., Ph.D. (Concordia), Associate Professor
- V. Goghari, B.A. (British Columbia), M.A., Ph.D. (Minnesota), Associate Professor
- J.W. Gurd, B.A. (Mount Allison), Ph.D. (McGill), Professor Emeritus
- D.W. Haley, B.A. (Annapolis), M.A. (San Francisco), Ph.D. (Albuquerque), Associate Professor
- M. Inzlicht, B.A. (McGill), M.Sc., Ph.D. (Brown), Professor
- R. Ito, B.A. (Oxford), Ph.D. (Cambridge), Associate Professor
- J.C. LeBoutillier, B.Sc., M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- A.C.H. Lee, B.A. (Oxford), Ph.D. (Cambridge), Associate Professor
- A.C. Mason, B.Sc. (Guelph), M.Sc., Ph.D. (Toronto), Professor
- P. McGowan, B.Sc. (Concordia), M.A., Ph.D. (Duke), Associate Professor
- J.E. Nash, B.Sc. (Aberdeen), M.Sc., Ph.D. (Manchester), Associate Professor
- A. Nestor, B.A. (Bucharest), M.Sc. (New Bulgarian), Ph.D. (Brown), Associate Professor
- M. Niemeier, M.A. (Hamburg), Ph.D. (Tubingen), Associate Professor
- T.L. Petit, B.Sc., M.A. (Louisiana), Ph.D. (Florida), Professor Emeritus
- S.G. Reid, B.Sc., Ph.D. (Ottawa), Associate Professor
- A.C. Ruocco, B.Sc. (York), M.Sc., Ph.D., C. Psych (Drexel), Associate Professor
- M. Souza, B.A., M.A. (UC Davis), Ph.D. (Berkeley), Associate Professor, Teaching Stream
- T.R. Thiele, B.A. (Hamilton College, Clinton, NY), Ph.D. (Oregon), Assistant Professor
- K.K. Zakzanis, B.A., M.A., Ph.D., C.Psych. (York), Professor

Chair: S. Erb
Associate Chair, Undergraduate and Program Supervisor: M. Fournier

Program Manager: H. Domloge
Undergraduate Advisor: A. Lawson Email: psychology-undergraduate@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

Neuroscience is a highly interdisciplinary scientific field of study that offers insight into the structure and function of the brain and the nervous system. Our nervous system is responsible for an enormous range of tasks, from regulating essential body functions such as breathing and digestion to producing our thoughts, emotions, and behaviours. Neuroscientists are interested in understanding the normal development and activity of the nervous system, as well as what happens under atypical circumstances such as neurological injury (e.g., stroke, brain injury), neurodegenerative diseases (e.g., Alzheimer's, Parkinson's disease), neuropsychiatric disorders (e.g., addiction, schizophrenia, depression) and neurodevelopmental disorders (e.g., autism). Applied neuroscience research has the potential to produce evidence-based strategies for the diagnosis and treatment of nervous system disorders.

Neuroscience education can be a powerful tool for many future endeavours. Given the interdisciplinary nature of neuroscience, students interested in pursuing research-focused graduate programs may have a variety of viable options (e.g., Ph.D. in Neuroscience, Psychology, or Biology). A neuroscience background is also valuable for a range of applied professional programs (e.g., Master's Degree in Physiotherapy, Occupational Therapy, Public Health), including medical school. Undergraduate education in neuroscience can also lead to a variety of direct-entry careers (e.g., research technician, data analyst, pharmaceutical sales).

Subdisciplines in neuroscience examine nervous system functioning at different levels of organization and analysis.
Cellular and Molecular Neuroscience explores the nervous system at its most fundamental level, investigating the influence of genes, signalling molecules, and cellular morphology on the development and maintenance of brain function, predominantly through the use of *in vitro* techniques (e.g., immunohistochemistry, patch clamp).
Systems and Behavioral Neuroscience examines the neural mechanisms underlying behaviour and how brain circuits work together to analyze external stimuli, internal biological states and past experiences in order to coordinate appropriate responses, predominantly through the use of *in vivo* approaches in behaving subjects (e.g., optogenetics, chemogenetics).
Cognitive Neuroscience focuses on understanding the neural basis of human cognition (e.g., language, memory, attention, decision-making) predominantly through the use of patient neuropsychology and neuroimaging techniques (e.g., magnetic resonance imaging (MRI), electroencephalography (EEG)). Taken together, these complementary approaches work to foster a comprehensive understanding of nervous system dynamics.

The Specialist Program in Neuroscience is research-intensive and allows students to choose one of three streams to concentrate their studies: Cellular/Molecular, Systems/Behavioural, or Cognitive. The Specialist (Co-op) Program in Neuroscience also requires successful completion of eight months of work-term experience. Our Major program, which focuses on both Cellular/Molecular and Systems/Behavioural Neuroscience, requires less research-intensive coursework while focusing more on how to be a skilled consumer of neuroscience research, providing a valuable foundation for a variety of career paths.

A program in Neuroscience pairs well with many other courses and programs here at UTSC. A few of the most common double major pairings with Neuroscience include Psychology, Mental Health Studies, and Human Biology. While these are the most common pairings, there are many other options that are highly complementary to training in neuroscience (e.g., Computer Science, Population Health, and Molecular Biology, Immunology and Disease), and we encourage students to explore and identify the combinations that are most consistent with their interests.

Planning your program in Neuroscience
Creating an academic plan - a road map of the courses you wish to take on the timeline you wish to take them - is crucial for the efficient and successful completion of your program. We strongly encourage our students to either develop an academic plan independently and then to consult the Department of Psychology Advisors for feedback, or to work with the Advisors to develop an academic plan. These advisors can provide valuable guidance to help you structure your program to improve your competitiveness for further studies after your undergraduate degree. For more information, please see the Department of Psychology website.

First-year course selection
Students interested in pursuing a program in Neuroscience must take BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, PSYA01H3, and PSYA02H3 (or their equivalents) to be considered for

admission. Students interested in pursuing a Specialist must also take MATA29H3 or MATA30H3 to be considered for admission.

Second-year course selection
Upon admission to any of the Neuroscience programs, students should prioritize taking BIOB10H3, NROB60H3, NROB61H3, PSYB55H3, PSYB07H3, and PSYB70H3. These courses collectively serve as prerequisites to a number of more advanced courses at the NRO C-level (e.g., NROC61H3). BIOB11H3 is a program requirement for students in the Major program, and the Systems/Behavioural and Cellular/Molecular streams of the Specialist program. Students in the Major or in pursuit of the Systems/Behavioural or Cellular/Molecular streams should plan to take BIOB11H3 in the second year.
Students in the Specialist/Specialist (Co-op) programs have additional course requirements in the second year. It is essential that you carefully review these requirements and plan your course selection appropriately to ensure that you can declare your stream of choice (Specialist), or declare your stream of choice and be eligible for your first work term (Specialist Co-op) in a timely manner.

Course equivalents at other campuses
Students are strongly encouraged to complete all Neuroscience program requirements at UTSC. In only a very few instances, courses from the other campuses may be used to satisfy program requirements. Please direct any questions about taking program requirements at the other UofT campuses to the Course Coordinator in the Department of Psychology *prior* to enrolment.

Research Experience
The Department offers a wide array of opportunities for students to become actively involved in scholarly research, including some opportunities that also result in course credit (e.g., NROC90H3, NROC93H3, and NROD98Y3). Supervised study and thesis courses are highly competitive and are essential for students interested in pursuing research-focused graduate studies. Interested students should review the prerequisites for these courses and plan their course of study accordingly. Our Specialist programs prepare students particularly well for pursuing a thesis NROD98Y3, as the requirements of the program provide students with the necessary background to succeed in completing a thesis project. Interested Majors may also discuss the option of writing a thesis with the Department of Psychology Advisors, provided that they meet other prerequisites for that course. Students are encouraged to visit the Department of Psychology website and/or faculty member websites to search for opportunities. Students may also seek supervision off campus (e.g., at Baycrest, Sunnybrook, CAMH), after confirming the appropriateness of the proposed supervisor with a Psychology Advisor and after securing the agreement of a UTSC faculty member to serve as secondary supervisor.

Co-curricular and extra-curricular experiences
While your coursework is an integral piece of your education, it can and should be supplemented by relevant co-curricular and extra-curricular experiences, more information is available on the Career & Co-Curricular Learning Network website. There are valuable professional development resources in our departments and on our campus (e.g., Academic Advising and Career Centre), as well as opportunities to volunteer or work on- or off-campus to broaden your skillset (e.g., clinical work exposure, leadership skills). For more information on some of these opportunities, please see the Department of Psychology website.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Neuroscience Programs

SPECIALIST PROGRAM IN NEUROSCIENCE (SCIENCE)

The Specialist program in Neuroscience is a research-intensive program designed to provide students with strong breadth in the major domains of neuroscience, as well as an opportunity to intensively focus on one of the following three streams:

A. Systems/Behavioural: this stream examines the neural mechanisms underlying behaviour and how brain circuits work together to analyze external stimuli, internal biological states, and past experiences in order to coordinate appropriate responses, predominantly through the use of *in vivo* approaches in behaving subjects (e.g., optogenetics, chemogenetics).

B. Cellular/Molecular: this stream explores the nervous system at its most fundamental level, investigating the influence of genes, signalling molecules, and cellular morphology on the development and maintenance of brain function, predominantly through the use of *in vitro* techniques (e.g., immunohistochemistry, patch clamp).

C. Cognitive: this stream focuses on understanding the neural basis of human cognition (e.g., language, memory, attention, decision-making) predominantly through the use of patient neuropsychology and neuroimaging techniques (e.g., magnetic resonance imaging (MRI), electroencephalography (EEG)).

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Students who do not meet the Stage 1 enrolment requirements can still apply to the Specialist program at Stage 2. This pathway requires students to complete a minimum of 10.0 credits, including all of the core courses of the program (Scientific Foundations, Neuroscience Foundations, and Stream Foundations). In addition to completing the course requirements, students must also have achieved a CGPA of 2.5 or higher across all courses, and a CGPA of 2.75 or higher across the Neuroscience Foundations and Stream Foundations courses. Application for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July. Admission through this route is dependent upon the availability of space in the program.

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students completing the Systems/Behavioural and Cellular/Molecular streams will complete a further 6.5 credits for a total of 13.0 credits; students completing the Cognitive stream will complete a further 7.0 credits for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 credits):
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience

[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
and three of the following:
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
CHMB41H3* Organic Chemistry I
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System

NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience
PSYD66H3 Current Topics in Human Brain & Behaviour

B. Cellular/Molecular Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
BIOB12H3 Cell and Molecular Biology Laboratory
NROC60H3 Cellular Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience
PSYD66H3 Current Topics in Human Brain & Behaviour

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience

SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE (SCIENCE)

Co-op Contact: askcoop@utoronto.ca

The Specialist program in Neuroscience is a research-intensive program designed to provide students with strong breadth in the major domains of neuroscience, as well as an opportunity to intensively focus on one of three streams.

This is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Neuroscience upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and two 4-month Co-op work terms (or one 8-month work term).

Students will choose one of the following three streams:

A. Systems/Behavioural: this stream examines the neural mechanisms underlying behaviour and how brain circuits work together to analyze external stimuli, internal biological states, and past experiences in order to coordinate appropriate responses, predominantly through the use of *in vivo* approaches in behaving subjects (e.g., optogenetics, chemogenetics).

B. Cellular/Molecular: this stream explores the nervous system at its most fundamental level, investigating the influence of genes, signalling molecules, and cellular morphology on the development and maintenance of brain function, predominantly through the use of *in vitro* techniques (e.g., immunohistochemistry, patch clamp).

C. Cognitive: this stream focuses on understanding the neural basis of human cognition (e.g., language, memory, attention, decision-making) predominantly through the use of patient neuropsychology and neuroimaging techniques (e.g., magnetic resonance imaging (MRI), electroencephalography (EEG)).

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted below.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;

(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Completion Requirements
The program requires students to complete all of the course requirements of the Specialist Program in Neuroscience, including the requirements of one of the three streams. In addition:

- Co-op students in the Systems/Behavioural and Cellular/Molecular streams must also complete BIOB12H3;
- Co-op students in the Cellular/Molecular stream cannot use BIOB12H3 to satisfy the 0.5 credit in Laboratory Courses (see component 7 of the program requirements); instead, students must complete one of NROC60H3, NROC90H3, or NROC93H3.

Co-op Work Term Requirements
Students must satisfactorily complete a total of 8 months in Co-op work terms, which may occur as a single 8-month placement, or two 4-month placements.

To be eligible for their first work term, students must:
- *Be enrolled in the Specialist Co-op Program in Neuroscience;*
- *Have successfully completed at least 10.0 credits, including the following:* BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3, and the following additional courses:

- in the Systems/Behavioural and Cellular/Molecular streams: BIOB11H3, BIOB12H3, CHMB41H3 (Note: CHMB42H3 is recommended, but not required);
- in the Cognitive stream: PSYC02H3, PSYC70H3, and [PSYC08H3 or PSYC09H3];

- *Have achieved a CGPA of 2.5 or higher.*

Students are cautioned that thoughtful course planning is a must to ensure they remain on track to go out on work-term in a timely fashion; students are strongly encouraged to use the course planning resources available through the Arts & Science Co-op Office.

In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on

admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN NEUROSCIENCE (SCIENCE)

The Major program in Neuroscience focuses on both Cellular/Molecular and Systems/Behavioural Neuroscience and requires less research-intensive coursework than the Specialist programs. The Major focuses more on how to be a skilled consumer of neuroscience research, providing a valuable foundation for a variety of career paths.

Students who wish to combine the Major in Neuroscience with a Major in any one of Biology, Human Biology, Mental Health Studies or Psychology are advised that they must complete 12.0 distinct credits to receive a certification of the completion of both programs. For more information, see section 6A.2 Degree Requirements in the UTSC Academic *Calendar*. Consultation with the respective Program Supervisors in the selection of credits is recommended.

Enrolment Requirements

Enrolment in the program is limited. Students may apply after completing a minimum of 4.0 credits including: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, PSYA01H3, and PSYA02H3. Admission to this program requires a CGPA of 2.0 or higher. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July.

Program Requirements
Students must complete a total of 8.5 credits.

1. Scientific Foundations (3.0 credits)
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.5 credits)
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
[PSYB55H3 Introduction to Cognitive Neuroscience or (PSYB65H3) Human Brain and Behaviour]
PSYB70H3 Methods in Psychological Science
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]

3. Advanced Foundations (1.5 credits)
at least 1.0 credit must be taken from:
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization and Physiology of the Brain

the remaining 0.5 credit should be taken from the following:
BIOC14H3 Genes, Environment and Behaviour
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC62H3 Drugs and the Brain

4. Capstone Course (0.5 credit)
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience*
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience
PSYD66H3 Current Topics in Human Brain and Behaviour

*Note: NROD08H3 has a calculus prerequisite that is not part of this program. Students interested in this course should plan accordingly.

Neuroscience Courses

NROB60H3 - Neuroanatomy Laboratory

This course focuses on functional neuroanatomy of the brain at both the human and animal level. Topics include gross anatomy of the brain, structure and function of neurons and glia, neurotransmitters and their receptors, and examples of major functional systems. Content is delivered through lecture and laboratories.

Prerequisite: BIOA01H3 and BIOA02H3 and CHMA10H3 and CHMA11H3 and PSYA01H3 and PSYA02H3; this course is restricted to students in the Specialist/Specialist Co-op and Major programs in Neuroscience
Exclusion: CSB332H, HMB320H, PSY290H, PSY391H, (ZOO332H)
Breadth Requirements: Natural Sciences

NROB61H3 - Neurophysiology

This course focuses on the electrical properties of neurons and the ways in which electrical signals are generated, received, and integrated to underlie neuronal communication. Topics include principles of bioelectricity, the ionic basis of the resting potential and action potential, neurotransmission, synaptic integration, and neural coding schemes. Content will be delivered through lectures, labs, and tutorials.

Prerequisite: NROB60H3; this course is restricted to students in the Specialist/Specialist Co-op and Major programs in Neuroscience
Enrolment Limits: 175
Breadth Requirements: Natural Sciences

NROC34H3 - Neuroethology

Neural basis of natural behaviour; integrative function of the nervous system; motor and sensory systems; mechanisms of decision-making, initiating action, co-ordination, learning and memory. Topics may vary from year to year.

Prerequisite: BIOB34H3 or NROB60H3 or NROB61H3
Breadth Requirements: Natural Sciences

NROC36H3 - Molecular Neuroscience

This course will focus on the molecular mechanisms underlying neuronal communication in the central nervous system. The first module will look into synaptic transmission at the molecular level, spanning pre and postsynaptic mechanisms. The second module will focus on molecular mechanisms of synaptic plasticity and learning and memory. Additional topics will include an introduction to the molecular mechanisms of neurodegenerative diseases and channelopathies.

Prerequisite: BIOB11H3 and NROB60H3 and NROB61H3 and [PSYB55H3 or (PSYB65H3)] and [PSYB07H3 or STAB22H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3]
Recommended Preparation: BIOC13H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op programs in Neuroscience Cellular/Molecular stream. Students enrolled in the Specialist/Specialist Co-op programs in Neuroscience Systems/Behavioural or Cognitive streams or the Major program in Neuroscience will be admitted as space permits.

NROC60H3 - Cellular Neuroscience Laboratory

This course involves a theoretical and a hands-on cellular neuroscience laboratory component. Advanced systems, cellular and molecular neuroscience techniques will be covered within the context of understanding how the brain processes complex behaviour. Practical experience on brain slicing, immunohistochemistry and cell counting will feature in the completion of a lab project examining the cellular mechanisms underlying schizophrenia-like behavioural deficits. These experiments do not involve contact with animals.

Prerequisite: NROC36H3 or NROC69H3
Corequisite: PSYC08H3
Exclusion: PSY399H
Enrolment Limits: 20
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op programs in Neuroscience Cellular/Molecular stream. Students enrolled in the Major program in Neuroscience will be admitted as space permits.

NROC61H3 - Learning and Motivation

This course will explore the neural and neurochemical bases of learning and motivation. Topics covered under the category of learning include: Pavlovian learning, instrumental learning, multiple memory systems, and topics covered under motivation include: regulation of eating, drinking, reward, stress and sleep.

Prerequisite: BIOB10H3 and NROB60H3 and NROB61H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3] and [PSYB55H3 or (PSYB65H3)]
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience (Stage 2, all streams) and the Major program in Neuroscience.

NROC63H3 - Behavioural Neuroscience Laboratory

This is a lecture and laboratory course that provides instruction on various approaches used in the field of Systems/Behavioural Neuroscience. Behavioural techniques, pharmacological and neurological manipulations, perfusions, and the preparation of scientific papers will be covered. An experiment examining the validity of a pharmacological model of psychological disease (e.g., addiction or schizophrenia) will be conducted, and will serve to teach students about animal research ethics, experimental design, data analysis and scientific communication of research outcomes.

Prerequisite: NROC61H3 or NROC69H3
Corequisite: PSYC08H3
Exclusion: PSY399H
Enrolment Limits: 20
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Systems/Behavioural stream. Students enrolled in the Major program in Neuroscience will be admitted as space permits.

NROC64H3 - Sensorimotor Systems

A focus on the mechanisms by which the nervous system processes sensory information and controls movement. The topics include sensory transduction and the physiology for sensory systems (visual, somatosensory, auditory, vestibular). Both spinal and central mechanisms of motor control are also covered.

Prerequisite: BIOB10H3 and NROB60H3 and NROB61H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3] and [PSYB55H3 or (PSYB65H3)]
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience (Stage 2, all streams) and students enrolled in the Major program in Neuroscience.

NROC69H3 - Synaptic Organization and Physiology of the Brain

The course will provide an in-depth examination of neural circuits, synaptic connectivity and cellular mechanisms of synaptic function. Similarities and differences in circuit organization and intrinsic physiology of structures such as the thalamus, hippocampus, basal ganglia and neocortex will also be covered. The goal is to engender a deep and current understanding of cellular mechanisms of information processing in the CNS.

Prerequisite: BIOB10H3 and NROB60H3 and NROB61H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3] and [PSYB55H3 or (PSYB65H3)]
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Systems/Behavioural and Cellular/Molecular streams.
Students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive Neuroscience stream or the Major program in Neuroscience will be admitted as space permits.

NROC90H3 - Supervised Study in Neuroscience

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms. NROC90H and NROC93H3 provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report. Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website (www.utsc.utoronto.ca/psych/undergraduates) that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course, including the structure of the required log-book. Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Neuroscience faculty at UTSC then a secondary supervisor who is a member of the Neuroscience group at UTSC will be required.

Prerequisite: BIOB10H3 and NROB60H3 and NROB61H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3] and [PSYB55H3 or (PSYB65H3)] and permission from the instructor.
Exclusion: PSYC90H3

NROC93H3 - Supervised Study in Neuroscience

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms. NROC90H3 and NROC93H3 provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report. Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website (www.utsc.utoronto.ca/psych/undergraduates) that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course, including the structure of the required log-book. Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Neuroscience faculty at UTSC then a secondary supervisor who is a member of the Neuroscience group at UTSC will be required.

Prerequisite: BIOB10H3 and NROB60H3 and NROB61H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3] and [PSYB55H3 or (PSYB65H3)], and permission from the instructor.
Exclusion: PSYC93H3

NROD08H3 - Theoretical Neuroscience

A seminar covering topics in the theory of neural information processing, focused on perception, action, learning and memory. Through reading, discussion and working with computer models students will learn fundamental concepts underlying current mathematical theories of brain function including information theory, population codes, deep learning architectures, auto-associative memories, reinforcement learning and Bayesian optimality.

Same as BIOD08H3

Prerequisite: [NROC34H3 or NROC64H3 or NROC69H3] and [MATA29H3 or MATA30H3 or MATA31H3] and [PSYB07H3 or STAB22H3]
Exclusion: BIOD08H3
Breadth Requirements: Natural Sciences

NROD60H3 - Current Topics in Neuroscience

An intensive examination of selected issues and research problems in the Neurosciences.

Prerequisite: [1.0 credit from the following: NROC34H3, NROC36H3, NROC61H3, NROC64H3, NROC69H3]
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

NROD61H3 - Emotional Learning Circuits

A seminar based course covering topics on emotional learning based on animal models of fear and anxiety disorders in humans. Through readings, presentations and writing students will explore the synaptic, cellular, circuit and behavioural basis of fear memory processing, learning how the brain encodes fearful and traumatic memories, how these change with time and developmental stage, as well as how brain circuits involved in fear processing might play a role in depression and anxiety.

Prerequisite: NROC61H3 and NROC64H3 and NROC69H3
Exclusion: [NROD60H3 if taken in Fall 2018]
Recommended Preparation: NROC60H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

NROD66H3 - Drug Addiction

An examination of the major phases of the addiction cycle, including drug consumption, withdrawal, and relapse. Consideration will be given to what basic motivational and corresponding neurobiological processes influence behaviour during each phase of the cycle. Recent empirical findings will be examined within the context of major theoretical models guiding the field.

Prerequisite: [NROC61H3 or NROC64H3] and PSYC62H3
Recommended Preparation: PSYC08H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

NROD67H3 - Neuroscience of Aging

This course will characterize various anatomical, biochemical, physiological, and psychological changes that occur in the nervous system with age. We will examine normal aging and age-related cognitive deterioration (including disease states) with a focus on evaluating the validity of current theories and experimental models of aging.

Prerequisite: NROC61H3 and NROC64H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

NROD98Y3 - Thesis in Neuroscience

This course offers the opportunity to engage in a year long research project under the supervision of an interested member of the faculty in Neuroscience. The project will culminate in a written report in the form of a thesis and a poster presentation. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigation. Students must first find a supervisor, which is usually confirmed before the start of the academic term in which the project will be initiated. Students will meet as a group with the coordinator as well as individually with their supervisor. Preference in this course is given to Specialists in Neuroscience with a cumulative GPA of 3.3 or higher. Students planning to pursue graduate studies are especially encouraged to enrol in the course. Students must obtain a permission form from the Department of Psychology's website (www.utsc.utoronto.ca/psych/undergraduates) that is to be completed and signed by the intended supervisor, and submitted to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course. Students seeking supervision off campus will need to arrange co supervision with a faculty member in Neuroscience at UTSC.

Prerequisite: Satisfactory completion of 15.0 credits in any discipline, including [PSYB07H3 or STAB22H3] and [0.5 credit in a laboratory course from Psychology, Biology or Neuroscience] and consent of a faculty member in Psychology or Biology to serve as a research supervisor. Note: Preference will be given to students in a Specialist program in Neuroscience whose 15.0 credits include [PSYC08H3 or PSYC09H3] and who have a cGPA of at least 3.3.
Exclusion: BIOD98Y3, PSYD98Y3, (BGYD98Y3), (BGYD99Y3), (BGYD01Y3), (BGYD02Y3)

New Media Studies

Faculty List

- R. Bai, B.A., M.A. (Beijing Foreign Studies), Ph.D. (Illinois), Assistant Professor
- K. Burchell, B.A. (McGill), M.Sc. (London), Ph.D. (Goldsmith), Assistant Professor
- T.L. Cowan, B.A. (Simon Fraser), M.A., Ph.D. (Alberta), Assistant Professor
- J. Dvorkin, B.A. Hon (Alberta), M.A. (Toronto), M.Phil. (London), Lecturer
- D. Nieborg, Ph.D. (Amsterdam), Assistant Professor
- M. Petit, M.A., Ph.D. (Colorado), Assistant Professor, Teaching Stream

ACM Program Manager*:* M. Hussain, Email: manaal.hussain@utoronto.ca

The University of Toronto Scarborough offers a Major (Joint) Program in New Media Studies, which is a competitive-entry professionalization program designed to help students prepare for careers in Web communication and new media industries. It combines the academic study of media at UTSC with the technical education and industry experience provided through practice-based courses on multimedia design for Web and mobile applications at Centennial College. In addition to earning an Honours Bachelor of Arts degree from the University of Toronto, students can earn a certificate in New Media Design from Centennial College by completing one additional summer session, which includes a new media internship and a professional practice course. New Media courses at Centennial College are held at the Story Arts Centre (SAC) campus located at 951 Carlaw Avenue, Toronto, ON.

Notes:
1. Although many students applying to the Major (Joint) Program in New Media Studies have substantial digital portfolios, students are not required to have any advanced knowledge in new media design to apply or to be admitted.
2. Students who are not accepted after their first year of studies may apply again at the end of their second year of studies; these students should continue to follow the requirements of the Major Program in Media Studies.
3. Effective the 2015-16 academic year, students in the Major (Joint) Program in New Media Studies will take classes at Centennial College in the Fall and Winter semesters, immediately after admission into the program.

Please see the New Media Studies (Joint) Program - Application Form for more details on application procedures, and a link to the Supplementary Application form.

Guidelines for course selection
Students admitted to the program must follow the course selection guidelines described in the table below:

Year of Study	Fall Session	Winter Session
First Year (at UTSC) ** Please contact ACM Program Advisor if you*	MDSA01H3* *is often offered in the Summer session	MDSA02H3* ACMB01H3

Year of Study	Fall Session	Winter Session
are pairing Major Program in Studio Art with Major (Joint) Program in New Media Studies		*is often offered in the Summer semester
Second Year (at Centennial College) Notes: 1. Students must be enrolled full-time in year 2 of the program. 2. Due to the course and project workload, students are not permitted to take additional courses at UTSC.	New Media Group 1:* NMEA01H3 NMEA02H3 NMEA03H3 NMEA04H3 *students must enrol in all courses in Group 1	New Media Group 2:* NMEB05H3 NMEB06H3 NMEB08H3 NMEB09H3 NMEB10H3 *students must enrol in all courses in Group 2
Third Year (at UTSC) Note: students complete Media Studies electives in year 3 and 4	NMEC01H3 (Fulfill the prerequisites for the MDS C-level courses that students will take in Winter session)	0.5 credit at the C-level in Media Studies courses
Fourth Year (at UTSC) Note: students complete Media Studies electives in year 3 and 4.	NMED10Y3	

Guidelines for computer and software selection

Students accepted in the Joint Program in New Media Studies are expected to purchase an industry-standard laptop and obtain designated software and hardware. For more details, please visit the New

Media Studies (Joint) Program- Program Requirement.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

New Media Studies Programs

MAJOR (JOINT) PROGRAM IN NEW MEDIA STUDIES (ARTS)

Undergraduate Advisor: Email: nme-undergrad-advisor@utsc.utoronto.ca

Enrolment Requirements
Enrolment in the program is limited and admission is by competitive application, due by May 1 each year. Students must have completed MDSA01H3 and MDSA02H3, and have a minimum cumulative GPA of 2.0 to apply. Students must request admission to the program through ACORN and submit to the program director a Supplementary Application Form that includes an unofficial copy of their academic record, a personal statement of interest, and links (if any) to work published online. Students are strongly advised to meet with the program director during their first year, and before preparing an application for admission. Students may be required to attend an interview with the program director before an admission decision is made. All applicants will be notified through ACORN in early June.

Program Requirements
Students must complete 8.0 full credits of which at least 2.0 must be at the C- or D-level, including:

1. 1.0 credit:
MDSA01H3 Introduction to Media Studies
MDSA02H3 History of Media

2. 0.5 credit:
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs

3. 0.5 credit:
NMEC01H3 Theory and Practice of New Media

4. 0.5 additional credit at the C-level in MDS courses:

5. 4.5 credits from Centennial College:
New Media Group 1:
NMEA01H3 Digital Fundamentals
NMEA02H3 Introduction to New Media Communications
NMEA03H3 The Language of Design
NMEA04H3 Interface Design, Navigation and Interaction I

New Media Group 2:
[Students will be eligible to enrol in these courses after successfully completing all courses in New Media Group 1]

NMEB05H3 Interface Design, Navigation and Interaction II
NMEB06H3 Project Development and Presentation
NMEB08H3 Application Software for Interactive Media
NMEB09H3 Sound Design
NMEB10H3 Design for New Media

6. 1.0 credit:
NMED10Y3 New Media Senior Project

Note: NMEC01H3 and NMED10Y3 are taught at UTSC. All other NME courses are taught at Centennial College Story Arts Centre.

New Media Studies Courses

NMEA01H3 - Digital Fundamentals

This course introduces basic hardware and software for new media. Students will learn basics of HTML (tags, tables and frames) and JavaScript for creation of new media. Discusses hardware requirements including storage components, colour palettes and different types of graphics (bitmap vs. vector-based). Students will be introduced to a variety of software packages used in new media production. This course is taught at Centennial College.

Prerequisite: 5.0 credits including MDSA01H3 and MDSA02H3
Corequisite: NMEA02H3, NMEA03H3, NMEA04H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Social & Behavioural Sciences

NMEA02H3 - Introduction to New Media Communications

This course enables students to develop strong written communications skills for effective project proposals and communications, as well as non-linear writing skills that can be applied to a wide range of interactive media projects. The course examines the difference between successful writing for print and for new media, and how to integrate text and visual material. This course is taught at Centennial College.

Prerequisite: 5.0 credits including MDSA01H3 and MDSA02H3
Corequisite: NMEA01H3, NMEA03H3, NMEA04H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: History, Philosophy & Cultural Studies

NMEA03H3 - The Language of Design

This course introduces the fundamentals of two-dimensional design, graphic design theory, graphic design history, colour principles, typographic principles and visual communication theories applied to New Media Design. Working from basic form generators, typography, two-dimensional design principles, colour and visual communication strategies, learners will be introduced to the exciting world of applied graphic design and multi-media. This course is taught at Centennial College.

Prerequisite: 10 full credits
Corequisite: 5.0 credits including MDSA01H3 and MDSA02H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Arts, Literature & Language

NMEA04H3 - Interface Design, Navigation and Interaction I

This course introduces students to the discipline of user interface and software design, and in particular their impact and importance in the world of new media. The course uses theory and research in combination with practical application, to bring a user-centred design perspective to developing new media software. This course is taught at Centennial College.

Prerequisite: 5.0 credits including MDSA01H3 and MDSA02H3
Corequisite: NMEA01H3, NMEA02H3, NMEA03H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Arts, Literature & Language

NMEB05H3 - Interface Design, Navigation and Interaction II

Extends work on interface design. Students have opportunities to gain real world experience in the techniques of user interface design. Participants learn to do a "requirements document" for projects, how to design an interface which meets the needs of the requirements of the document and how to test a design with real world users.

Prerequisite: NMEA01H3, NMEA02H3, NMEA03H3, NMEA04H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Arts, Literature & Language

NMEB06H3 - Project Development and Presentation

This course enables the participant to understand the new media production process. Learners will develop the skills to conduct benchmarking, scoping and testing exercises that lead to meaningful project planning documents. Learners will develop and manage production schedules for their group projects that support the development efforts using the project planning documents.

Prerequisite: NMEA01H3, NMEA02H3, NMEA03H3, NMEA04H3
Corequisite: NMEB05H3, NMEB08H3, NMEB09H3, NMEB10H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Social & Behavioural Sciences

NMEB08H3 - Application Software for Interactive Media

This course builds on NMEA01H3. It enables learners to extend their understanding of software requirements and of advanced software techniques. Software used may include Dreamweaver, Flash, Director, and animation (using Director).

Prerequisite: NMEA01H3, NMEA02H3, NMEA03H3, NMEA04H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Social & Behavioural Sciences

NMEB09H3 - Sound Design

This course introduces students to the scope of sound design - creative audio for new media applications. Students will work with audio applications software to sample, create and compress files, and in the planning and post-production of new media. Students will also learn to use audio in interactive ways such as soundscapes.

Prerequisite: NMEA01H3, NMEA02H3, NMEA03H3, NMEA04H3
Corequisite: NMEB05H3, NMEB06H3, NMEB08H3, NMEB10H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Arts, Literature & Language

NMEB10H3 - New Media Design

This course discusses the integration of multiple media with the art of good design. The course examines the conventions of typography and the dynamics between words and images, with the introduction of time, motion and sound. The course involves guest speakers, class exercises, assignments, field trips, group critiques and major projects.

Prerequisite: NMEA01H3, NMEA02H3, NMEA03H3, NMEA04H3
Corequisite: NMEB05H3, NMEB06H3, NMEB08H3, NMEB09H3
Enrolment Limits: 35. This course is only open to students registered in the Joint Major Program in New Media.
Breadth Requirements: Arts, Literature & Language

NMEC01H3 - Theory and Practice of New Media

This seminar examines the ideological, political, structural, and representational assumptions underlying new media production and consumption from both theoretical and practice-based perspectives. Students critically reflect on and analyze digital media applications and artefacts in contemporary life, including business, information, communication, entertainment, and creative practices.

Prerequisite: 4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses
Exclusion: (NMED20H3)
Enrolment Limits: 35
Breadth Requirements: History, Philosophy & Cultural Studies

NMED10Y3 - New Media Senior Project

Students develop a new media project that furthers their research into theoretical issues around digital media practices and artefacts. Projects may focus on digital media ranging from the internet to gaming, to social networking and the Web, to CD-ROMS, DVDs, mobile apps, and Virtual and Augmented Reality technologies.

Prerequisite: Completion of 15.0 credits including 4.5 credits from the Major (Joint) program in New Media Studies Group I and Group II courses
Exclusion: (NMED01H3)
Enrolment Limits: 35

Paramedicine

Faculty List

- S.A. Brunt, B.Sc., M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream

This is a unique program in Canada, offered jointly by the University of Toronto Scarborough and Centennial College, which combines a four-year Honours Bachelor of Science (HBSc) with a two-year Paramedic Diploma program into a specialized degree that is completed over a four-year period. In the Specialist (Joint) Program in Paramedicine students benefit from tailored curricular design and exceptional faculty at UTSC and Centennial College. The program gives students the critical thinking, analytical and technical skills to succeed in the knowledge and performance-based field of Paramedicine. Graduates of the Specialist (Joint) Program in Paramedicine receive a B.Sc. and are qualified for certification as Primary Care Paramedics (PCPs) in Ontario, contingent on passing the Advanced Emergency Care Assistant Exam (AEMCA) offered by the Ontario Ministry of Health.

Students spend the first year of their degree at UTSC; in the second and third year, students complete a total of 7.5 credits at the Centennial College Morningside Campus alongside taking courses at UTSC. Students complete the program by finishing off year four of their studies at UTSC. Upon successful completion of the Centennial College portion of the program, students are eligible to write the AEMCA exam. Program graduates are well prepared for employment in the field of Paramedicine and have a strong foundation for future studies in professional fields related to health care.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Paramedicine Programs

SPECIALIST (JOINT) PROGRAM IN PARAMEDICINE (SCIENCE)

Supervisor of Studies: Shelley Brunt Email: paramedicine@utsc.utoronto.ca

Students who complete the requirements of the program will also qualify for the Paramedic Diploma from Centennial College. Students who have completed the requirements for Centennial's diploma are eligible to take the Ministry of Health exams required to qualify as a Primary Care Paramedic.

Enrolment Requirements
This program has limited enrolment. Applicants must fill out a Paramedicine Declaration form. Prior to taking courses at Centennial College, students must also fill out a medical certificate and have current qualifications in CPR and standard first aid. Other non-academic requirements such as a vulnerable sector police check, fitness standards and face mask fit certification will also ultimately be required. Additional details regarding these requirements may be found at Centennial's website. Applicants may arrange to complete some of these requirements during their first year of study at the University

of Toronto Scarborough. For more information on admission and deadlines, see section 6B.4 (Joint Programs with Centennial College) of this *Calendar*.

Program Requirements
This program requires the completion of 16.5 credits. Including electives, students should take 2.5 credits in each semester of their four year degree.

Note: three of the PMD courses are 1.0 credit (Y courses) rather than 0.5 credit (H courses).

1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.5 Credits of Core Biology Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Genetic Processes
BIOB34H3 Animal Physiology

3. 1.5 Credits of Foundational Biology Courses
BIOC17H3 Microbiology
[BIOC21H3 Vertebrate Histology: Cells and Tissues or BIOC32H3 Human Physiology I]
BIOC34H3 Human Physiology II

4. 1.0 Credit of Advanced Biology Courses
Choose From:
BIOD17H3 Seminars in Cellular Microbiology
BIOD26H3 Fungal Biology and Pathogenesis
BIOD29H3 Pathobiology of Human Disease
BIOD33H3 Comparative Animal Physiology
BIOD43H3 Animal Movement and Exercise
BIOD65H3 Pathologies of the Nervous System
BIOD96Y3 Directed Research in Paramedicine

5. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

6. 1.0 Credit of Introductory Psychology Courses
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

7. 1.0 Credit of B-Level Psychology Courses
PSYB20H3 Introduction to Developmental Psychology
PSYB32H3 Introduction to Clinical Psychology

8. 1.0 Credit of Statistics/Data Analysis Courses
[STAB22H3 Statistics I *or* PSYB07H3 Data Analysis in Psychology]
PSYC08H3 Advanced Data Analysis in Psychology

9. 7.5 Credits of Paramedicine Courses
*PMDB22H3 Pre-Hospital Care 1: Theory and Lab
*PMDB25H3 Therapeutic Approaches to Behaviour in Crisis

*PMDB30H3 Alterations of Human Body Function I
*PMDB32Y3 Pre-Hospital Care 2: Theory, Lab and Clinical
*PMDB33H3 Anatomy
*PMDB36H3 Pharmacology for Allied Health Pre-requisite
*PMDB41H3 Professional Issues, Research and Leadership
*PMDC40H3 Alterations in Human Body Function II
*PMDC42Y3 Pre-Hospital Care 3: Theory, Lab and Field
*PMDC43H3 Medical Directed Therapeutics and Paramedic Responsibilities
*PMDC54Y3 Pre-Hospital Care 4: Theory, Lab and Field
*PMDC56H3 Primary Care Practice Integration and Decision Making

*A grade of 60% is required in these courses both to pass the course and to maintain standing in the program. All PMD courses are taught at Centennial College. Note, some PMD courses require that 60% be achieved in all components of the course (i.e., lecture component, practical component, and clinical-placement component).

Note: In order to remain in the program, students must typically maintain a cumulative GPA of at least 2.0. Students whose cumulative GPA falls below 2.0 should consult the program supervisor to discuss their options. Please also note, space in some Centennial College courses is limited. Students who must repeat one of these courses and whose cumulative GPA has fallen below 2.0 will be allowed to register in these courses only if space permits.

Suggested Course Sequence

*Year 1: Fall Semester**

1. BIOA01H3 Life on Earth: Unifying Principles
2. CHMA10H3 Introductory Chemistry I: Structure and Bonding
3. PSYA01H3 Introduction to Biological and Cognitive Psychology

*Year 1: Winter Semester**

1. BIOA02H3 Life on Earth: Form, Function and Interactions
2. CHMA11H3 Introductory Chemistry II; Reactions and Mechanisms
3. PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

*In Year 1 students must also complete 0.5 credit in statistics [STAB22H3 Statistics I *or* PSYB07H3 Data Analysis in Psychology].

Year 2: Fall Semester

1. BIOB10H3 Cell Biology
2. PMDB33H3 Anatomy
3. PMDB22H3 Pre-Hospital Care 1: Theory and Lab
4. PMDB25H3 Therapeutic Approaches to Behaviour in Crisis
5. PMDB41H3 Professional Issues, Research and Leadership

Year 2: Winter Semester

1. BIOB11H3 Molecular Aspects of Genetic Processes
2. PMDB30H3 Alterations of Human Body Function I
3. PMDB32Y3 Pre-Hospital Care 2: Theory, Lab and Clinical

4. PMDB36H3 Pharmacology for Allied Health Pre-requisite

Year 3: Fall Semester

1. BIOB34H3 Animal Physiology
2. PMDC40H3 Alterations in Human Body Function II
3. PMDC42Y3 Pre-Hospital Care 3: Theory, Lab and Field
4. PMDC43H3 Medical Directed Therapeutics and Paramedic Responsibilities

Year 3: Winter Semester

1. BIOC17H3 Microbiology
2. BIOC34H3 Human Physiology II
3. PMDC54Y3 Pre-Hospital Care 4: Theory, Lab and Field
4. PMDC56H3 Primary Care Practice Integration and Decision Making

Year 4: Fall Semester

1. BIOC21H3 Vertebrate Histology: Cells and Tissues or BIOC32H3 Human Physiology I
2. PSYB20H3 Introduction to Developmental Psychology
3. PSYB32H3 Abnormal Psychology
4. [BIOD33H3 Comparative Animal Physiology *or* BIOD65H3 Pathologies of the Nervous System *or* BIOD26H3 Fungal Biology and Pathogenesis *or* BIOD96Y3 Directed Research in Paramedicine*]

Year 4: Winter Semester

1. PSYC08H3 Advanced Data Analysis in Psychology
2. BIOD17H3 Seminars in Cellular Microbiology *or* BIOD43H3 Animal Movement and Exercise *or* BIOD29H3 Pathobiology of Human Disease
3. 0.5 credits of elective courses

*Students may take any 2 of the D-level courses listed above to meet program requirements. The sequence here merely reflects the current scheduling of courses in the various sessions.

Paramedicine Courses

PMDB22H3 - Pre-hospital Care 1: Theory and Lab

Allows students to develop the critical thinking skills and problem solving approaches needed to provide quality pre-hospital emergency care. Emphasizes the components of primary and second assessment, and the implementation of patient care based on interpretation of assessment findings. Discusses principles of physical and psycho-social development, and how these apply to the role of the paramedic. Students must pass each component (theory and lab) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: BIOA01H3 and BIOA02H3
Corequisite: PMDB25H3 and PMDB41H3 and PMDB33H3
Enrolment Limits: Enrolment is restricted to students in the Specialist Program in Paramedicine.
Breadth Requirements: Social & Behavioural Sciences

PMDB25H3 - Therapeutic Communications and Crisis Intervention

Focuses on the utilization of effective communication tools when dealing with persons facing health crisis. Students will learn about coping mechanisms utilized by patients and families, and the effects of death and dying on the individual and significant others. Students will have the opportunity to visit or examine community services and do class presentations. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: BIOA01H3 and BIOA02H3
Enrolment Limits: Enrolment is restricted to students in the Specialist Program in Paramedicine.
Breadth Requirements: History, Philosophy & Cultural Studies

PMDB30H3 - Alterations of Human Body Function I

Discusses how human body function is affected by a variety of patho-physiological circumstances. The theoretical framework includes the main concepts of crisis, the adaptation of the body by way of compensatory mechanisms, the failure of these compensatory mechanisms and the resulting physiological manifestations. Students will learn to identify such manifestations. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDB22H3 and PMDB25H3 and PMDB41H3 and PMDB33H3
Corequisite: PMDB32Y3 and PMDB36H3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: Natural Sciences

PMDB32Y3 - Pre-hospital Care 2: Theory, Lab and Clinical

Provides the necessary knowledge, skill and value base that will enable the student to establish the priorities of assessment and management for persons who are in stress or crisis due to the effects of illness or trauma. The resulting patho-physiological or psychological manifestations are assessed to determine the degree of crisis and/or life threat. Students must pass each component (theory, lab and clinical) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDB22H3 and PMDB25H3 and PMDB41H3 and PMDB33H3
Corequisite: PMDB30H3 and PMDB36H3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: Natural Sciences

PMDB33H3 - Anatomy

The basic anatomy of all the human body systems will be examined. The focus is on the normal functioning of the anatomy of all body systems and compensatory mechanisms, where applicable, to maintain homeostasis. Specific differences with respect to the pediatric/geriatric client will be highlighted. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: BIOA01H3 and BIOA02H3
Corequisite: PMDB22H3
Exclusion: ANA300Y, ANA301H, BIOB33H3
Enrolment Limits: Restricted to students in the Specialist (Joint) Program in Paramedicine.
Breadth Requirements: Natural Sciences

PMDB36H3 - Pharmacology for Allied Health

Introduces principles of Pharmacology, essential knowledge for paramedics who are expected to administer medications in Pre-hospital care. Classifications of drugs will be discussed in an organized manner according to their characteristics, purpose, physiologic action, adverse effects, precautions, interactions and Pre-hospital applications. Students will use a step-by-step process to calculate drug dosages. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDB22H3 and PMDB25H3 and PMDB41H3 and PMDB33H3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: Natural Sciences

PMDB41H3 - Professional and Legal Issues, Research, Responsibilities and Leadership

Discusses the changing role of the paramedic and introduces the student to the non-technical professional expectations of the profession. Introduces fundamental principles of medical research and professional principles. Topics covered include the role of professional organizations, the role of relevant legislation, the labour/management environment, the field of injury prevention, and basic concepts of medical research. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: BIOA01H3 and BIOA02H3
Enrolment Limits: Enrolment is restricted to students in the Specialist Program in Paramedicine.
Breadth Requirements: Social & Behavioural Sciences

PMDC40H3 - Alterations of Human Body Function II

Strengthens students' decision-making skills and sound clinical practices. Students continue to develop an understanding of various complex alterations in human body function from a variety of patho-physiological topics. Physiologic alterations will be discussed in terms of their potential life threat, their effect on the body's compensatory and decompensatory mechanisms, their manifestations and complications and treatment. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDB30H3 and PMDB32Y3 and PMDB36H3 and BIOB11H3
Corequisite: PMDC42Y3 and PMDC43H3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: Natural Sciences

PMDC42Y3 - Pre-hospital Care 3: Theory, Lab and Field

Provides students with the necessary theoretical concepts and applied knowledge and skills for managing a variety of pre-hospital medical and traumatic emergencies. Particular emphasis is placed on advanced patient assessment, ECG rhythm interpretation and cardiac emergencies, incorporation of symptom relief pharmacology into patient care and monitoring of intravenous fluid administration. Students must pass each component (theory, lab and field) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDB30H3 and PMDB32Y3 and PMDB36H3 and BIOB11H3
Corequisite: PMDC40H3 and PMDC43H3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: Natural Sciences

PMDC43H3 - Medical Directed Therapeutics and Paramedic Responsibilities

Applies concepts and principles from pharmacology, patho-physiology and pre-hospital care to make decisions and implementation of controlled or delegated medical acts for increasingly difficult case scenarios in a class and lab setting. Ethics and legal implications/responsibilities of actions will be integrated throughout the content. Patient care and monitoring of intravenous fluid administration. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDB30H3 and PMDB32Y3 and PMDB36H3 and BIOB11H3
Corequisite: PMDC40H3 and PMDC42Y3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: History, Philosophy & Cultural Studies

PMDC54Y3 - Pre-hospital Care 4: Theory, Lab and Field

Combines theory, lab and field application. New concepts of paediatric trauma and Basic Trauma Life Support will be added to the skill and knowledge base. Students will be guided to develop a final portfolio demonstrating experiences, reflection and leadership. Students must pass each component (theory, lab and field) of the course to be successful. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDC40H3 and PMDC42Y3 and PMDC43H3
Corequisite: PMDC56H3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: Natural Sciences

PMDC56H3 - Primary Care Paramedic Integration and Decision Making

Challenges students with increasingly complex decisions involving life-threatening situations, ethical-legal dilemmas, and the application of sound foundational principles and knowledge of pharmacology, patho-physiology, communication, assessment and therapeutic interventions. Students will analyze and discuss real field experiences and case scenarios to further develop their assessment, care and decision-making. This course is taught at the Centennial HP Science and Technology Centre.

Prerequisite: PMDC40H3 and PMDC42Y3 and PMDC43H3
Corequisite: PMDC54Y3
Enrolment Limits: Enrolment is limited to students in the Specialist Program in Paramedicine
Breadth Requirements: Natural Sciences

Philosophy

Faculty List

- W.C. Graham, M.A., Ph.D. (Toronto), Professor, Emeritus
- B. Hellie, B.A. (Stanford), Ph.D. (Princeton), Professor
- W. Hussain, B.A. (Princeton), Ph.D. (Harvard), Assistant Professor
- P.A. Kremer, B.Sc. (Toronto), Ph.D. (Pittsburgh), Professor
- L.M. Lange, B.A., M.A. (Manitoba), Ph.D. (Toronto), Professor, Emerita
- J. Nefsky, B.A. (McMaster), Ph.D. (Berkeley), Assistant Professor
- C. Pfeiffer, M.A. (Humboldt and Berlin), Ph.D. (Humboldt)
- W.E. Seager, M.A. (Alberta), Ph.D. (Toronto), Professor
- S. Sedivy, B.A. (Toronto), Ph.D. (Pittsburgh), Associate Professor
- J. Wilson, B.A. (U.C. San Diego), Ph.D. (Cornell), Professor

Program Supervisor: S. Sedivy Email: philosophy-program-supervisor@utsc.utoronto.ca

Philosophy is the study of the ideas that shape our thought and activity. While we do discuss controversial issues in politics, morality, science, religion, art, etc., philosophy is more concerned with the ideas that underlie all such debates. We consider what the role of government should be, what reasons there could be to describe anything as good or bad, what proves that something is true, whether there could be a reality beyond the physical world, and whether the only value of art is the pleasure it gives. Such questions have been answered in a variety of theories, and any study in philosophy begins with learning what others have thought, but our purpose is not primarily to be historians of ideas, and assignments focus on developing the intellectual abilities and techniques required to think effectively for oneself at this deeper level. Therefore, philosophy emphasizes interpretation and original thought, reasoning, discussion and assessment.

PHLA10H3 and PHLA11H3 are a survey of the main topic-areas of philosophy. They are recommended both as courses of general interest and as an introduction to the Major and Specialist Programs.

B-level courses address specific topics such as theories of human nature, theories of mind, theories of knowledge, metaphysics, techniques of argumentation, ethics, politics, feminism, and art as well as specific periods in the History of Philosophy. Since they have no prerequisites they also serve as entry-points to philosophy. Foundational courses have been grouped into Areas of Focus, which serve as prerequisites to the C-level seminars (see Table 1.0).

C-level seminars in Philosophy are advanced courses for students who have completed an introductory course in the relevant Area of Focus (see Table 1.0). (Instructors will admit students whose courses have adequately prepared them for a seminar. Students must provide transcripts when requesting special permission to enrol in a seminar.)

D-level seminars in Philosophy are advanced courses for students with 3.5 credits in Philosophy including 1.0 credits at the C-level. (Instructors will admit students whose courses have adequately prepared them for a seminar. Students must provide transcripts when requesting special permission to enroll in a seminar.)

D-level independent study courses are intended for qualified students who wish to engage in advanced-level work on a well-defined topic of their choice. These courses are only available with the prior agreement of an instructor.

Table 1.0: Philosophy Courses by Area of Focus

Value Theory	Mind, Metaphysics and Epistemology	History of Philosophy
PHLB02H3 PHLB05H3 PHLB06H3 PHLB07H3 PHLB09H3 (PHLB08H3) (PHLB36H)	PHLB20H3 PHLB55H3 PHLB60H3 PHLB81H3 (PHLB70H3) (PHLB72H3) (PHLB80H3) (PHLB86H3)	PHLB31H3 PHLB33H3 PHLB35H3 (PHLB16H3) (PHLB36H3)

*Students who have completed, in a previous session, a course that is no longer being offered (i.e., appears in round brackets) may make use of that course to fulfill the prerequisite requirement.

Students who are unsure whether they meet a course prerequisite are encouraged to contact the program supervisor for further guidance: philosophy-program-supervisor@utsc.utoronto.ca.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Philosophy Programs

SPECIALIST PROGRAM IN PHILOSOPHY (ARTS)

Program Supervisor: S. Sedivy Email: philosophy-program-supervisor@utsc.utoronto.ca

Program Requirements
Students must complete at least 12.0 credits in Philosophy including PHLB50H3 Symbolic Logic I *or* PHLB55H3 Puzzles and Paradoxes, and at least 5.0 credits at the C- or D-level of which 1.0 must be at the D-level. MATC09H3 can be used as a Philosophy course for these purposes. Students are encouraged, though not required, to complete at least 0.5 credit as a reading course at the D-level.

Note: PHLB99H3 Philosophical Writing and Methodology, is strongly recommended for the Philosophy Specialist and Major programs and is important preparation for advanced C- and D-level studies in Philosophy.

SPECIALIST (CO-OPERATIVE) PROGRAM IN PHILOSOPHY (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Philosophy is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Philosophy upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Philosophy.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Philosophy and have completed at least 9.0 credits, including one of PHLB50H3, PHLB55H3 or MATC09H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN PHILOSOPHY (ARTS)

Program Supervisor: S. Sedivy Email: philosophy-program-supervisor@utsc.utoronto.ca

Program Requirements
Students must complete at least 7.0 credits in Philosophy including PHLB50H3 Symbolic Logic 1 *or* PHLB55H3 Puzzles and Paradoxes and at least 3.0 credits must be at the C- or D-level. MATC09H3 can be used as a Philosophy course for these purposes.

Note: PHLB99H3 Philosophical Writing and Methodology, is strongly recommended for the Philosophy Specialist and Major programs and is important preparation for advanced C- and D-level studies in Philosophy.

MAJOR (CO-OPERATIVE) PROGRAM IN PHILOSOPHY (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Philosophy is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills

required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Philosophy upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Philosophy.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Philosophy and have completed at least 9.0 credits, including one of PHLB50H3, PHLB55H3 or MATC09H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN BIOMEDICAL ETHICS (ARTS)

Program Requirements

This program requires students to complete a total of 4.0 credits:

1. 0.5 credit:
PHLB09H3 Biomedical Ethics

2. 1.0 credit in Biomedical Ethics (select from the following courses):

PHLC07H3 Death and Dying
PHLC10H3 Topics in Bioethics
PHLD09H3 Advanced Seminar in Bioethics

3. 0.5 credit in Value Theory (select from the following courses):
PHLA11H3 Introduction to Ethics
PHLB02H3 Environmental Ethics
PHLB05H3 Social Issues
PHLB06H3 Business Ethics
PHLB07H3 Ethics
PHLB11H3 Philosophy of Law
PHLB17H3 Introduction to Political Philosophy
PHLC05H3 Ethical Theory
PHLC06H3 Topics in Ethical Theory
PHLC92H3 Political Philosophy
PHLC93H3 Topics in Political Philosophy
PHLD05H3 Advanced Seminar in Ethics
PHLD78H3 Advanced Seminar in Political Philosophy

4. 2.0 additional credits in Philosophy courses*:
*HLTA02H3 and MATC09H3 can be counted for the purpose of fulfilling this general philosophy credit requirement.

Note: The Minor program in Biomedical Ethics cannot be combined with the Minor program in Philosophy; however, students may combine the Minor program in Biomedical Ethics with either the Major or Specialist programs in Philosophy.

MINOR PROGRAM IN PHILOSOPHY (ARTS)

Program Supervisor: S. Sedivy Email: philosophy-program-supervisor@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits in Philosophy of which at least 1.0 credit must be at the C- or D-level. MATC09H3 can be used as a Philosophy course for these purposes.

Philosophy Courses

PHLA10H3 - Reason and Truth

An introduction to philosophy focusing on issues of rationality, metaphysics and the theory of knowledge. Topics may include: the nature of mind, freedom, the existence of God, the nature and knowability of reality. These topics will generally be introduced through the study of key texts from the history of philosophy.

Exclusion: PHL100Y1, PHL101Y1
Breadth Requirements: History, Philosophy & Cultural Studies

PHLA11H3 - Introduction to Ethics

Ethics is concerned with concrete questions about how we ought to treat one another as well as more general questions about how to justify our ethical beliefs. This course is an introduction that both presents basic theories of ethics and considers their application to contemporary moral problems.

Exclusion: PHL275H, PHL100Y1, PHL101Y1
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB02H3 - Environmental Ethics

This course examines ethical issues raised by our actions and our policies for the environment. Do human beings stand in a moral relationship to the environment? Does the environment have moral value and do non-human animals have moral status? These fundamental questions underlie more specific contemporary issues such as sustainable development, alternative energy, and animal rights.

Exclusion: PHL273H
Recommended Preparation: PHLA11H3
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB03H3 - Philosophy of Art

An examination of challenges posed by the radical changes and developments in modern and contemporary art forms. For example, given the continuously exploding nature of art works, what do they have in common - what is it to be an artwork?

Exclusion: PHL285H
Breadth Requirements: Arts, Literature & Language

PHLB04H3 - Philosophy and Literature

This course examines some of the classic problems concerning literary texts, such as the nature of interpretation, questions about the power of literary works and their relationship to ethical thought, and problems posed by fictional works - how can we learn from works that are fictional and how can we experience genuine emotions from works that we know are fictional?

Breadth Requirements: Arts, Literature & Language

PHLB05H3 - Social Issues

An examination of contemporary or historical issues that force us to consider and articulate our values and commitments. The course will select issues from a range of possible topics, which may include globalization, medical ethics, war and terrorism, the role of government in a free society, equality and discrimination.

Breadth Requirements: Social & Behavioural Sciences

PHLB06H3 - Business Ethics

An examination of philosophical issues in ethics, social theory, and theories of human nature as they bear on business. What moral obligations do businesses have? Can social or environmental costs and benefits be calculated in a way relevant to business decisions? Do political ideas have a role within business?

Exclusion: MGSC14H3/(MGTC59H3), PHL295H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB07H3 - Ethics

What is the difference between right and wrong? What is 'the good life'? What is well-being? What is autonomy? These notions are central in ethical theory, law, bioethics, and in the popular imagination. In this course we will explore these concepts in greater depth, and then consider how our views about them shape our views about ethics.

Breadth Requirements: History, Philosophy & Cultural Studies

PHLB09H3 - Biomedical Ethics

This course is an examination of moral and legal problems in medical practice, in biomedical research, and in the development of health policy. Topics may include: concepts of health and disease, patients' rights, informed consent, allocation of scarce resources, euthanasia, risks and benefits in research and others.

Exclusion: PHL281H, (PHL281Y)
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB11H3 - Philosophy of Law

A discussion of right and rights, justice, legality, and related concepts. Particular topics may include: justifications for the legal enforcement of morality, particular ethical issues arising out of the intersection of law and morality, such as punishment, freedom of expression and censorship, autonomy and paternalism, constitutional protection of human rights.

Exclusion: PHL271H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB12H3 - Philosophy of Sexuality

Philosophical issues about sex and sexual identity in the light of biological, psychological and ethical theories of sex and gender; the concept of gender; male and female sex roles; perverse sex; sexual liberation; love and sexuality.

Exclusion: PHL243H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB13H3 - Philosophy and Feminism

What is feminism? What is a woman? Or a man? Are gender relations natural or inevitable? Why do gender relations exist in virtually every society? How do gender relations intersect with other social relations, such as economic class, culture, race, sexual orientation, etc.?

Exclusion: PHL267H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB17H3 - Introduction to Political Philosophy

This course will introduce some important concepts of and thinkers in political philosophy from the history of political philosophy to the present. These may include Plato, Aristotle, Augustine, Aquinas, Thomas Hobbes, John Locke, Jean-Jacques Rousseau, G.W.F. Hegel, John Stuart Mill, or Karl Marx. Topics discussed may include political and social justice, liberty and the criteria of good government.

Exclusion: PHL265H, (POLB71H3); in addition, PHLB17H3 may not be taken after or concurrently with POLB72H3
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB20H3 - Belief, Knowledge, and Truth

An examination of the nature of knowledge, and our ability to achieve it. Topics may include the question of whether any of our beliefs can be certain, the problem of scepticism, the scope and limits of human knowledge, the nature of perception, rationality, and theories of truth.

Exclusion: (PHL230H)
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB30H3 - Existentialism

A study of the views and approaches pioneered by such writers as Kierkegaard, Husserl, Jaspers, Heidegger and Sartre. Existentialism has had influence beyond philosophy, impacting theology, literature and psychotherapy. Characteristic topics include the nature of the self and its relations to the world and society, self-deception, and freedom of choice.

Exclusion: PHL220H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB31H3 - Introduction to Ancient Philosophy

A survey of some main themes and figures of ancient philosophical thought, concentrating on Plato and Aristotle. Topics include the ultimate nature of reality, knowledge, and the relationship between happiness and virtue.

Exclusion: PHL200Y, PHL202H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB33H3 - God, Self, World

This course is a thematic introduction to the history of metaphysics, focusing on topics such as the nature of God, our own nature as human beings, and our relation to the rest of the world. We will read a variety of texts, from ancient to contemporary authors, that will introduce us to concepts such as substance, cause, essence and existence, mind and body, eternity and time, and the principle of sufficient reason. We will also look at the ethical implications of various metaphysical commitments.

Breadth Requirements: History, Philosophy & Cultural Studies

PHLB35H3 - Introduction to Early Modern Philosophy

This course is an introduction to the major themes and figures of seventeenth and eighteenth century philosophy, from Descartes to Kant, with emphasis on metaphysics, epistemology, and ethics.

Exclusion: PHL210Y
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB50H3 - Symbolic Logic I

An introduction to formal, symbolic techniques of reasoning. Sentential logic and quantification theory (or predicate logic), including identity will be covered. The emphasis is on appreciation of and practice in techniques, for example, the formal analysis of English statements and arguments, and for construction of clear and rigorous proofs.

Exclusion: PHL245H
Breadth Requirements: Quantitative Reasoning

PHLB55H3 - Puzzles and Paradoxes

Time travel, free will, infinity, consciousness: puzzling and paradoxical issues like these, brought under control with logic, are the essence of philosophy. Through new approaches to logic, we will find new prospects for understanding philosophical paradoxes.

Breadth Requirements: Quantitative Reasoning

PHLB60H3 - Introduction to Metaphysics

A consideration of problems in metaphysics: the attempt to understand 'how everything fits together' in the most general sense of this phrase. Some issues typically covered include: the existence of God, the nature of time and space, the nature of mind and the problem of the freedom of the will.

Exclusion: (PHL231H)
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB81H3 - Theories of Mind

An examination of questions concerning the nature of mind. Philosophical questions considered may include: what is consciousness, what is the relation between the mind and the brain, how did the mind evolve and do animals have minds, what is thinking, what are feelings and emotions, and can machines have minds.

Exclusion: PHL240H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB91H3 - Theories of Human Nature

An exploration of theories which provide answers to the question 'What is a human being?', answers that might be summarized with catchphrases such as: 'Man is a rational animal,' 'Man is a political animal,' 'Man is inherently individual,' 'Man is inherently social,' etc. Authors studied are: Aristotle, Hobbes, Rousseau, Darwin, Marx, Freud and Sartre.

Exclusion: PHL244H, (PHLC91H3)
Breadth Requirements: History, Philosophy & Cultural Studies

PHLB99H3 - Philosophical Writing and Methodology

In this writing-intensive course, students will become familiar with tools and techniques that will enable them to competently philosophize, on paper and in person. Students will learn how to write an introduction and how to appropriately structure philosophy papers, how to accurately present someone else's position or argumentation, how to critically assess someone else's view or argumentation, and how to present and defend their own positive proposal or argumentation concerning a given topic. Students will learn many more specific skills, such as, how to `signpost' what students are doing, how to identify and charitably interpret ambiguities in another discussion, and how to recognize and apply various argumentative strategies.

Prerequisite: 0.5 credit in PHL courses, excluding [PHLB50H3 and PHLB55H3]
Breadth Requirements: History, Philosophy & Cultural Studies
Note: This course is strongly recommended for students enrolled in the Specialist and Major program in Philosophy. It is open to students enrolled in the Minor program in Philosophy as well as all other students by permission of the instructor.

PHLC03H3 - Topics in the Philosophy of Art

An exploration of some current issues concerning the various forms of art such as: the role of the museum, the loss of beauty and the death of art.

Prerequisite: Any 4.5 credits and [PHLB03H3 and an additional 1.0 credit in PHL courses]
Breadth Requirements: Arts, Literature & Language

PHLC05H3 - Ethical Theory

Philosophers offer systematic theories of ethics: theories that simultaneously explain what ethics is, why it matters, and what it tells us to do. This course is a careful reading of classic philosophical texts by the major systematic thinkers in the Western tradition of ethics. Particular authors read may vary from instructor to instructor.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Value Theory area of focus – see Table 1.0 for reference]
Exclusion: (PHLC01H3), PHL375H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC06H3 - Topics in Ethical Theory

Philosophical ethics simultaneously aims to explain what ethics is, why it matters, and what it tells us to do. This is what is meant by the phrase 'ethical theory.' In this class we will explore specific topics in ethical theory in some depth. Specific topics may vary with the instructor.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Value Theory area of focus – see Table 1.0 for reference]
Exclusion: (PHLC01H3)
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC07H3 - Death and Dying

An intermediate-level study of the ethical and legal issues raised by death and dying. Topics may vary each year, but could include the definition of death and the legal criteria for determining death, the puzzle of how death can be harmful, the ethics of euthanasia and assisted suicide, the relationship between death and having a meaningful life, and the possibility of surviving death.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Value Theory area of focus, see Table 1.0 for reference]
Exclusion: PHL382H1
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC08H3 - Topics in Arabic and Jewish Philosophy

This is an advanced, reading and discussion intensive course in the history of Arabic and Jewish thought, beginning with highly influential medieval thinkers such as Avicenna (Ibn Sīnā), al-Ghazālī, Al Fārābī, Averroes (Ibn Rushd), and Maimonides, and ending with 20th century philosophers (among them Arendt, Freud and Levinas).

Prerequisite: Any 4.5 credits and [and additional 1.5 credits in PHL courses, of which 0.5 credit must be from the History of Philosophy area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC09H3 - Topics in Continental Philosopy

This course is a reading and discussion intensive course in 20th century German and French European Philosophy. Among the movements we shall study will be phenomenology, existentialism, and structuralism. We will look at the writings of Martin Heidegger, Jean-Paul Sartre, Maurice Merleau-Ponty, Michel Foucault, and Gilles Deleuze, among others.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC10H3 - Topics in Bioethics

An intermediate-level study of bioethical issues. This course will address particular issues in bioethics in detail. Topics will vary from year to year, but may include such topics as reproductive ethics, healthcare and global justice, ethics and mental health, the patient-physician relationship, or research on human subjects.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Value Theory area of focus, see Table 1.0 for reference]
Recommended Preparation: PHLB09H3 is strongly recommended
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC13H3 - Topics in Philosophy and Feminism

Feminist philosophy includes both criticism of predominant approaches to philosophy that may be exclusionary for women and others, and the development of new approaches to various areas of philosophy. One or more topics in feminist philosophy will be discussed in some depth. Particular topics will vary with the instructor.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Value Theory sub-discipline area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC14H3 - Topics in Non-Western Philosophy

Contemporary Philosophy, as taught in North America, tends to focus on texts and problematics associated with certain modes of philosophical investigation originating in Greece and developed in Europe and North America. There are rich alternative modes of metaphysical investigation, however, associated with Arabic, Indian, East Asian, and African philosophers and philosophizing. In this course, we will explore one or more topics drawn from metaphysics, epistemology, or value theory, from the points of view of these alternative philosophical traditions.

Prerequisite: Any 4.5 credits and an additional 1.5 credits in PHL courses
Recommended Preparation: PHLB99H3
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC20H3 - Theory of Knowledge

A follow up to PHLB20H3. This course will consider one or two epistemological topics in depth, with an emphasis on class discussion.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Exclusion: PHL332H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC22H3 - Topics in Theory of Knowledge

This course addresses particular issues in the theory of knowledge in detail. Topics will vary from year to year but may typically include such topics as The Nature of Knowledge, Scepticism, Epistemic Justification, Rationality and Rational Belief Formation.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Exclusion: PHL332H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC31H3 - Topics in Ancient Philosophy: Plato

This course examines the foundational work of Plato in the major subject areas of philosophy: ethics, politics, metaphysics, theory of knowledge and aesthetics.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the History of Philosophy area of focus, see Table 1.0 for reference]
Exclusion: PHL303H1
Recommended Preparation: PHLB31H3 is strongly recommended
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC32H3 - Topics in Ancient Philosophy: Aristotle

This course examines the foundational work of Aristotle in the major subject areas of philosophy: metaphysics, epistemology, ethics, politics, and aesthetics.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the History of Philosophy area of focus, see Table 1.0 for reference]
Exclusion: PHL304H1
Recommended Preparation: PHLB31H3 strongly recommended
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC35H3 - Topics in Early Modern Philosophy: Rationalism

In this course we study the major figures of early modern rationalism, Descartes, Spinoza, and Leibniz, with a particular emphasis on topics such as substance, knowledge and sense perception, the mind-body problem, and the existence and nature of God.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the History of Philosophy area of focus – see Table 1.0 for reference]
Exclusion: PHL310H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC36H3 - Topics in Early Modern Philosophy: Empiricism

In this course we study major figures of early modern empiricism, Locke, Berkeley, Hume, with a particular emphasis on topics such as substance, knowledge and sense perception, the mind-body problem, and the existence and nature of God.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the History of Philosophy area of focus – see Table 1.0 for reference]
Exclusion: PHL311H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC37H3 - Kant

This course focuses on the thought of Immanuel Kant, making connections to some of Kant's key predecessors such as Hume or Leibniz. The course will focus either on Kant's metaphysics and epistemology, or his ethics, or his aesthetics.

Prerequisite: Any 4.5 credits and [[PHLB33H3 or PHLB35H3] and additional 1.0 credit in PHL courses]
Exclusion: PHL314H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC43H3 - History of Analytic Philosophy

This course explores the foundation of Analytic Philosophy in the late 19th and early 20th century, concentrating on Frege, Russell, and Moore. Special attention paid to the discovery of mathematical logic, its motivations from and consequences for metaphysics and the philosophy of mind.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, including PHLB50H3 and 0.5 credit from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Exclusion: PHL325H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC51H3 - Symbolic Logic II

After consolidating the material from Symbolic Logic I, we will introduce necessary background for metalogic, the study of the properties of logical systems. We will introduce set theory, historically developed in parallel to logic. We conclude with some basic metatheory of the propositional logic learned in Symbolic Logic I.

Prerequisite: PHLB50H3 or CSCB36H3 or MATB24H3 or MATB43H3
Exclusion: MATC09H3, PHL345H
Breadth Requirements: Quantitative Reasoning

PHLC60H3 - Metaphysics

A follow up to PHLB60H3. This course will consider one or two metaphysical topics in depth, with an emphasis on class discussion.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Exclusion: PHL331H, PHL332H (UTM only)
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC72H3 - Philosophy of Science

This course will consider one or two topics in the Philosophy of Science in depth, with an emphasis on class discussion.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC80H3 - Philosophy of Language

An examination of philosophical issues about language. Philosophical questions to be covered include: what is the relation between mind and language, what is involved in linguistic communication, is language an innate biological feature of human beings, how do words manage to refer to things, and what is meaning.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC86H3 - Issues in the Philosophy of Mind

Advance Issues in the Philosophy of Mind. For example, an examination of arguments for and against the idea that machines can be conscious, can think, or can feel. Topics may include: Turing's test of machine intelligence, the argument based on Gödel's theorem that there is an unbridgeable gulf between human minds and machine capabilities, Searle's Chinese Room thought experiment.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC89H3 - Topics in Analytic Philosophy

Advanced topic(s) in Analytic Philosophy. Sample contemporary topics: realism/antirealism; truth; interrelations among metaphysics, epistemology, philosophy of mind and of science.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC92H3 - Political Philosophy

An examination of some central philosophical problems of contemporary political philosophy.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Value Theory area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC93H3 - Topics in Political Philosophy

This course will examine some contemporary debates in recent political philosophy. Topics discussed may include the nature of justice, liberty and the criteria of good government, and problems of social coordination.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Value Theory area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC95H3 - Topics in the Philosophy of Mind

Advanced topics in the Philosophy of mind, such as an exploration of philosophical problems and theories of consciousness. Topics to be examined may include: the nature of consciousness and 'qualitative experience', the existence and nature of animal consciousness, the relation between consciousness and intentionality, as well as various philosophical theories of consciousness.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses, of which 0.5 credit must be from the Mind, Metaphysics and Epistemology area of focus – see Table 1.0 for reference]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLC99H3 - Philosophical Development Seminar

This course aims to foster a cohesive cohort among philosophy specialists and majors. The course is an intensive seminar that will develop advanced philosophical skills by focusing on textual analysis, argumentative techniques, writing and oral presentation. Students will work closely with the instructor and their peers to develop a conference-style, research-length paper. Each year, the course will focus on a different topic drawn from the core areas of philosophy for its subject matter. This course is *strongly recommended* for students in the Specialist and Major programs in Philosophy.

Prerequisite: Any 4.5 credits and [an additional 1.5 credits in PHL courses]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD05H3 - Advanced Seminar in Ethics

This course offers an in-depth investigation into selected topics in moral philosophy.

Prerequisite: 3.5 credits in PHL courses, including [[PHLC05H3 or PHLC06H3] and 0.5 credit at the C-level]
Exclusion: PHL407H, PHL475H
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD09H3 - Advanced Seminar in Bioethics

This advanced seminar will delve deeply into an important topic in bioethics. The topics will vary from year to year. Possible topics include: a detailed study of sperm and ovum donation; human medical research in developing nations; informed consent; classification of mental illness.

Prerequisite: 3.5 credits in PHL courses, including [PHLC10H3 and 0.5 credit at the C-level]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD20H3 - Advanced Seminar in Theory of Knowledge

This courses addresses core issues in the theory of knowledge at an advanced level. Topics to be discussed may include The Nature of Knowledge, Scepticism, Epistemic Justification, Rationality and Rational Belief Formation.

Prerequisite: 3.5 credits in PHL courses, including [[PHLC20H3 or PHLC22H3] and 0.5 credit at the C-level]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD31H3 - Advanced Seminar in Ancient Philosophy

This course offers in-depth examination of selected topics from the philosophy of Plato and Aristotle, as well as the Epicurean and Stoic schools of thought. Topics will range from the major areas of philosophy: metaphysics, epistemology, ethics, politics and aesthetics.

Prerequisite: 3.5 credits in PHL courses, including [PHLC31H3 or PHLC32H3] and an additional 0.5 credit at the C-level
Recommended Preparation: It is strongly recommended that students take both PHLC31H3 and PHLC32H3.
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD35H3 - Advanced Seminar in Rationalism

This course offers in-depth examination of the philosophical approach offered by one of the three principal Rationalist philosophers, Descartes, Spinoza or Leibniz.

Prerequisite: 3.5 credits in PHL courses, including [PHLC35H3 and 0.5 credit at the C-level]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD36H3 - Advanced Seminar in Empiricism

In this course, we will explore in depth certain foundational topics in the philosophy of Berkeley and Hume, with an eye to elucidating both the broadly Empiricist motivations for their approaches and how their approaches to key topics differ. Topics may address the following questions: Is there a mind-independent world? What is causation? Is the ontological or metaphysical status of persons different from that of ordinary objects? Does God exist?

Prerequisite: 3.5 credits in PHL courses, including [PHLC36H3 and an additional 0.5 credit at the C-level]
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD43H3 - Advanced Seminar in History of Analytic Philosophy

This course examines Analytic Philosophy in the mid-20th century, concentrating on Wittgenstein, Ramsey, Carnap, and Quine. Special attention paid to the metaphysical foundations of logic, and the nature of linguistic meaning, including the relations between "truth-conditional" and "verificationist" theories.

Prerequisite: 3.5 credits in PHL courses, including [PHLC43H3 and 0.5 credit at the C-level]
Exclusion: PHL325H, (PHLC44H3)
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD51H3 - Metalogic

Symbolic Logic deals with formal languages: you work inside formal proof systems, and also consider the "semantics", dealing with truth, of formal languages. Instead of working inside formal systems, Metalogic treats systems themselves as objects of study, from the outside.

Prerequisite: PHLC51H3
Exclusion: PHL348H, (PHLC54H3)
Breadth Requirements: Quantitative Reasoning

PHLD78H3 - Advanced Seminar in Political Philosophy

This advanced seminar will delve more deeply into an issue in political philosophy. Topics will vary from year to year, but some examples include: distributive justice, human rights, and the political morality of freedom. Students will be required to present material to the class at least once during the semester.

Prerequisite: 3.5 credits in PHL courses, including 1.0 credit at the C-level
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD79H3 - Advanced Seminar in Metaphysics

This seminar addresses core issues in metaphysics. Topics to be discussed may include the nature of persons and personal identity, whether physicalism is true, what is the relation of mind to reality in general, the nature of animal minds and the question of whether machines can possess minds.

Prerequisite: 3.5 credits in PHL courses, including 1.0 credit at the C-level

PHLD85H3 - Advanced Seminar in Philosophy: Socrates Project Mentorship

The Socrates Project Mentorship Seminar is a half-year seminar course that provides experiential learning in philosophy in conjunction with a teaching assignment to lead tutorials and mark assignments in PHLA10H3. This course is designed for a select number of returning Socrates Project participants chosen to mentor new Project participants. These students will solidify their teaching/grading skills and advise new participants in the Project. The seminar course will further enhance their philosophical abilities in an extension of PHLD88Y3. Roughly 75% of the seminar will be devoted to a more in-depth study of the topics taken up in the PHLA10H3 Reason and Truth. Students will write a seminar paper on one of these topics under the supervision of a UTSC Philosophy faculty member working in the relevant area, and they will give an oral presentation on their research topic each semester. The remaining 25% of the seminar will focus on the further exploration of the methods and challenges of teaching philosophy, benchmark grading, and grading generally and, most distinctively, issues of mentorship of new participants to the Socrates Project.

Note: The teaching component of the Socrates Project will consist of the following components. Students will optionally attend two 1-hour PHLA10H3 lectures each week, and teach one tutorial of approximately 25 students, meeting with them for 1 hour every other week. Students will grade papers, hold office hours, and meet with the relevant professor as needed as well as provide mentorship to new participants in the Socrates Project.

Prerequisite: PHLD88Y3
Exclusion: PHL489Y1, PHL489Y5
Enrolment Limits: 5
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD86H3 - Advanced Seminar in Philosophy: Socrates Project Mentorship

The Socrates Project Mentorship Seminar is a half-year seminar course that provides experiential learning in philosophy in conjunction with a teaching assignment to lead tutorials and mark assignments in PHLA11H3. This course is designed for a select number of returning Socrates Project participants chosen to mentor new Project participants. These students will solidify their teaching/grading skills and advise new participants in the Project. The seminar course will further enhance their philosophical abilities in an extension of PHLD88Y3. Roughly 75% of the seminar will be devoted to a more in-depth study of the topics taken up in the PHLA11H3 Introduction to Ethics. Students will write a seminar paper on one of these topics under the supervision of a UTSC Philosophy faculty member working in the relevant area, and they will give an oral presentation on their research topic each semester. The remaining 25% of the seminar will focus on the further exploration of the methods and challenges of teaching philosophy, benchmark grading, and grading generally and, most distinctively, issues of mentorship of new participants to the Socrates Project.

Note: The teaching component of the Socrates Project will consist of the following components. Students will optionally attend two 1-hour PHLA11H3 lectures each week, and teach one tutorial of approximately 25 students, meeting with them for 1 hour every other week. Students will grade papers, hold office hours, and meet with the relevant professor as needed as well as provide mentorship to new participants in the Socrates Project.

Prerequisite: PHLD88Y3
Exclusion: PHL489Y1, PHL489Y5
Enrolment Limits: 5
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD87H3 - Advanced Seminar in Philosophy of Mind

This course offers in-depth examination of selected contemporary theories and issues in philosophy of mind, such as theories of perception or of consciousness, and contemporary research examining whether minds must be embodied or embedded in a larger environment.

Prerequisite: 3.5 credits in PHL courses, including [[PHLC95H3 or PHLC86H3] and 0.5 credit at the C-level]
Exclusion: PHL405H
Recommended Preparation: PHLC95H3
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD88Y3 - Advanced Seminar in Philosophy: Socrates Project

The Socrates Project Seminar is a full-year seminar course that provides experiential learning in philosophy in conjunction with a teaching assignment to lead tutorials and mark assignments in PHLA10H3 and PHLA11H3. Roughly 75% of the seminar will be devoted to more in-depth study of the topics taken up in PHLA10H3 and PHLA11H3. Students will write a seminar paper on one of these topics under the supervision of a UTSC Philosophy faculty member working in the relevant area, and they will give an oral presentation on their research topic each semester. The remaining 25% of the seminar will focus on the methods and challenges of teaching philosophy, benchmark grading, and grading generally.

Prerequisite: Permission of the instructor and Department.
Exclusion: PHL489Y1, PHL489Y5
Enrolment Limits: 10
Breadth Requirements: History, Philosophy & Cultural Studies

PHLD90H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD91H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD92H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD93H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD94H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD95H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD96H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD97H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD98H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

PHLD99H3 - Independent Study

These courses are intended for qualified students who wish to engage in advanced level work on a well-defined topic of their choice. These courses are only available with the prior arrangement of an instructor.

Physical Sciences

Students considering, or enrolled in, a program in Physical Sciences should note the following:

1. MATA30H3 is a strictly enforced corequisite for both PHYA10H3 and PHYA11H3.
2. Any one of MATA35H3, MATA36H3, or MATA37H3 is a suitable corequisite for PHYA22H3. However, MATA35H3 is not an accepted corequisite for PHYA21H3. Only MATA36H3 or MATA37H3 will are accepted as corequisites for PHYA21H3. In addition, please keep in mind that:
    a. MATA35H3 is the course best suited for students in life sciences programs that are not planning to pursue further physical sciences programs or advanced MAT courses.
    b. MATA36H3 is the recommended course for students interested in programs in physical sciences and not planning on advanced MAT courses.
    c. MATA37H3 is the recommended course for students interested in programs in physical sciences in conjunction with advanced MAT courses.
3. Students planning to combine a program listed below with any program in mathematics are advised to take MATA37H3 as this course provides the background and pre-requisite for advanced MAT courses.
4. MATA67H3 is a pre-requisite for MATA37H3. Additionally, MATA67H3 is a recommended course for students pursuing any of the programs listed below as it will enhance the foundational skills required for discussions on the theories presented in advanced courses in PHY, AST, and MAT.
5. Given the current nature of research in the Physical Sciences, students interested in any of the programs listed below are advised to take an introductory course in programming in their first year of studies. Suitable options include CSCA08H3 for students with interest in subsequent programming courses or CSCA20H3 for students without interest in subsequent programming courses.
6. MATB24H3 is a strongly recommended option for students in their second year of studies following any of the programs listed below. This course will enhance the mathematical preparation of students for topics in core areas of Classical Mechanics, Electromagnetism, and Quantum Mechanics, as well as provide quantitative and analytical skills needed for advanced studies in most fields in physical sciences.
7. PHYD01H3 and PHYD72H3 have a minimum CGPA requirement of 2.5. Students who do not meet the minimum requirement will not be given permission to take these courses, and will not be able to complete programs that include these courses as a requirement.

Combined Degree Programs, Honours Bachelor of Science/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Physical Sciences Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching

- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching

- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology	Science - Biology

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).

- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN PHYSICAL AND MATHEMATICAL SCIENCES (SCIENCE)

Supervisor: P. Artymowicz (416-287-7244) Email: pawel@utsc.utoronto.ca

This program provides a framework of courses in the Physical Sciences based upon a firm Mathematical foundation, relating Astronomy, Chemistry, Computer Science, Physics and Statistics. It prepares students for careers in teaching, industry, and government as well as for further studies at the graduate level.

Program Requirements
This program requires 15.5 credits as follows:

First Year:
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
CSCA20H3 Introduction to Programming*
MATA30H3 Calculus I for Physical Sciences
MATA22H3 Linear Algebra I for Mathematical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

***Note**: CSCA08H3** may be substituted for CSCA20H3

Second Year
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations
PHYB10H3 Intermediate Physics Laboratory I
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics

Second or Third Year
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
MATB61H3 Linear Programming
PHYB54H3 Mechanics: From Oscillations to Chaos
[PSCB57H3 Introduction to Scientific Computing
STAB52H3 An Introduction to Probability]

Third or Fourth Year
4.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCD37H3 Analysis of Numerical Algorithms for Computational Mathematics
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC11H3 Intermediate Physics Laboratory II
PHYC50H3 Electromagnetic Theory
PHYC54H3 Classical Mechanics
PHYC56H3 Quantum Mechanics I
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]

PHYD26H3 Planetary Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PSCD02H3 Current Questions in Mathematics and Science
PSCD50H3 Advanced Topics in Quantum Mechanics

Note: To satisfy the prerequisite requirements of upper-level Computer Science Courses, students planning to take such courses should take CSCA08H3, rather than CSCA20H3, which is otherwise preferred for this program.

MAJOR PROGRAM IN PHYSICAL SCIENCES (SCIENCE)

Supervisor: S. Tawfiq (416-287-7243) Email: tawfiq@utsc.utoronto.ca

The Major Program in Physical Sciences is intended for students desiring a general background in the physical sciences (with an emphasis in the area of astronomy, physics and physical chemistry) but who do not intend to pursue graduate studies. Parallel major Programs for students more interested in the mathematical sciences or in chemistry are offered in Mathematical Sciences, in Chemistry, and in Biochemistry.

Program Requirements:
This program requires 8.0 credits as follows:

First Year:
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
MATA30H3 Calculus I for Physical Sciences
MATA22H3 Linear Algebra I for Mathematical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]

Second or Third Year
2.5 credits from the following:
PHYB10H3 Intermediate Physics Laboratory I
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
PHYB56H3 Introduction to Quantum Physics
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
STAB22H3 Statistics I

Third or Fourth Year
2.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC54H3 Classical Mechanics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PSCB57H3 Introduction to Scientific Computing
PSCD02H3 Current Questions in Mathematics and Science
PHYD26H3 Planetary Geophysics
PSCD50H3 Advanced Topics in Quantum Mechanics
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]

Physical Sciences Courses

PSCB57H3 - Introduction to Scientific Computing

Scientific computing is a rapidly growing field because computers can solve previously intractable problems and simulate natural processes governed by equations that do not have analytic solutions. During the first part of this course, students will learn numerical algorithms for various standard tasks such as root finding, integration, data fitting, interpolation and visualization. In the second part, students will learn how to model real-world systems from various branches of science. At the end of the course, students will be expected to write small programs by themselves. Assignments will regularly include programming exercises.

Prerequisite: [MATA36H3 or MATA37H3] and one A-level science course
Breadth Requirements: Quantitative Reasoning

PSCB90H3 - Physical Sciences Research Experience

This course provides an opportunity for students to work with a faculty member, Students will provide assistance with one of the faculty member's research projects, while also earning credit. Students will gain first-hand exposure to current research methods, and share in the excitement of discovery of knowledge acquisition. Progress will be monitored by regular meetings with the faculty member and through a reflective journal. Final results will be presented in a written report and/or a poster presentation at the end of the term. Approximately 120 hours of work is expected for the course.

Prerequisite: Permission of the Course Coordinator
Recommended Preparation: Completion of at least 4.0 credits in a relevant discipline.
Breadth Requirements: Natural Sciences
Note: Students must send an application to the course Coordinator for admission into this course. Applications must be received by the end of August for Fall enrolment, December 15th for Winter enrolment, and end of April for Summer enrolment. Typically, students enrolled in a program offered by the Department of Physical and Environmental Sciences and students who have a CGPA of at least 2.5 or higher are granted admission. Approved students will receive a signed course enrolment form that will be submitted to the Office of the Registrar.
Applications will include:
1) A letter of intent indicating the student's wish to enrol in the course;
2) A list of relevant courses successfully completed by the student, as well as any relevant courses to be taken during the upcoming semester;
3) Submission of the preferred project form, indicating the top four projects of interest to the student. This form is available from the Course Coordinator, along with the project descriptions.

PSCD01H3 - The Physical Sciences in Contemporary Society

Current issues involving physical science in modern society. Topics include: complex nature of the scientific method; inter-connection between theory, concepts and experimental data; characteristics of premature, pathological and pseudo-science; organization and funding of scientific research in Canada; role of communication and publishing; public misunderstanding of scientific method. These will be discussed using issues arising in chemistry, computer science, earth sciences, mathematics and physics.
Note: Where PSCD01H3 is a Program requirement, it may be replaced by PHY341H with the approval of the Program supervisor.
Prerequisite: Completion of at least one-half of the credits required in any one of the programs offered by the Department of Physical & Environmental Sciences.

Corequisite: Continued participation in one of the Physical and Environmental Sciences programs.
Exclusion: PHY341H
Breadth Requirements: Social & Behavioural Sciences

PSCD02H3 - Current Questions in Mathematics and Science

Topics of current prominence arising in chemistry, computer science, earth sciences, mathematics and physics will be discussed, usually by faculty or outside guests who are close to the areas of prominence. Topics will vary from year to year as the subject areas evolve.

Prerequisite: Completion of at least 3.5 credits of a Physical Sciences program
Corequisite: Continued participation in one of the Physical Sciences programs or enrolment in the Minor Program in Natural Sciences and Environmental Management
Exclusion: PHY342H
Breadth Requirements: Natural Sciences

PSCD11H3 - Communicating Science: Film, Media, Journalism, and Society

Communicating complex science issues to a wider audience remains a major challenge. This course will use film, media, journalism and science experts to explore the role of science and scientists in society. Students will engage with media and academic experts to get an insight into the 'behind the scenes' world of filmmaking, media, journalism, and scientific reporting. The course will be of interest to all students of environmental science, media, education, journalism and political science.

Prerequisite: Any 14.5 credits
Exclusion: (PSCA01H3)
Breadth Requirements: Arts, Literature & Language

PSCD50H3 - Advanced Topics in Quantum Mechanics

This course provides exposure to a variety of theoretical concepts and practical methods for treating various problems in quantum mechanics. Topics include perturbation theory, variational approach, adiabatic approximation, mean field approximation, Hamiltonian symmetry implementation, light-matter interaction, second quantization.

Prerequisite: Any one of the following courses [PHYC56H3 or CHMC20H3 or CHMC25H3]
Exclusion: PHY456H, CHM423H, CHM421H, JCP421H
Breadth Requirements: Natural Sciences

Physics and Astrophysics

Faculty List

- P. Artymowicz, M.Sc. (Warsaw University), Ph.D. (N. Copernicus Astron. Center, Polish Academy of Sciences), Professor
- J. Bayer Carpintero, B.Sc. (Los Andes, Bogota), M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- C.C. Dyer, B.Sc. (Bishop's), M.Sc., Ph.D. (Toronto), Professor Emeritus
- W.A. Gough, B.Sc. (Waterloo), M.Sc. (Toronto), Ph.D. (McGill), Professor
- A. Jacobs, B.A.Sc., B.Sc. (Waterloo), Ph.D. (Illinois), Professor Emeritus
- J.D. King, B.A. (Toronto), Ph.D. (Saskatchewan), Professor Emeritus
- G. Lorincz, B.Sc., M.Sc. (Toronto), Associate Professor, Teaching Stream
- J.P. Lowman, B.Sc. (Toronto), M.Sc., Ph.D. (York, Canada), Professor
- K. Menou, B.Sc. (Angers), M.Sc. (Toulouse), Ph.D. (Paris XI), Associate Professor
- J.M. Perz, B.A.Sc., M.A.Sc. (Toronto), Ph.D. (Cantab), Professor Emeritus
- H. Rein, M.A.St. (Cambridge), Ph.D. (Cambridge), Associate Professor
- S. Tawfiq, B.Sc., M.Sc. (Al-Mustansiriyah), Ph.D. (Trieste, Italy), Associate Professor, Teaching Stream
- D. Valencia, B.Sc., M.Sc. (Toronto), Ph.D. (Harvard), Assistant Professor
- D. Weaver, B.Sc., B.Ed., M.Sc., Ph.D. (Toronto), Assistant Professor
- M. Wells, B.Sc., Ph.D. (Australian National) Associate Professor

Physics is the study of the basic laws that govern how material objects move and influence each other. Astrophysics is the application of the principles of Physics to the study of objects in the universe and their interactions and evolution, thus covers the study of objects such as planets, stars, galaxies, black holes, and the universe as a whole, known as cosmology. The laws of Physics can accurately describe the effect of a star on the motion of a planet, or of the Earth on the motion of a satellite, the effect of a molecule on a nearby atom, or of an atomic nucleus on an electron. Although Newton's laws of motion adequately describe some of these situations, in most cases it is necessary to apply the more recently discovered refinements of these laws - quantum mechanics and Einstein's theories of special and general relativity, together with the understanding of electric and magnetic effects so beautifully synthesized in Maxwell's theory of electromagnetism. From these basic principles many of the properties of gases, liquids, solids, plasmas, nuclear matter, planets, stars, etc., can be related to the interactions among the individual units of which these forms of matter are composed. Physics allows us to describe the properties of light, sound and heat up to the point where these enter our senses, as well as x-ray, radio, cosmic and other radiations of which we are not directly aware. The remarkable properties of some materials under extreme conditions of temperature and pressure, and of other materials when an electric current passes through them, form the basis of a wide range of applications in the technology of our every-day lives, from microwave ovens to cellular telephones and GPS navigation. It is possible to develop, in mathematical language, theories that so accurately describe physical phenomena that they may be used to predict the results of many carefully controlled experiments. The study of physics and astrophysics, therefore, involves both mathematics and the techniques of experimentation.

At the University of Toronto Scarborough, students who are interested in Physics and Astrophysics can take the Specialist Program in Physics and Astrophysics, the Specialist Program in Physical &

Mathematical Sciences, the Specialist Program in Environmental Physics, the Major Program in Physics and Astrophysics, or the Major Program in Physical Sciences.

Students interested, or enrolled in a Physics program should note the following:

1. MATA30H3 is a strictly enforced corequisite for both PHYA10H3 and PHYA11H3.
2. Any one of MATA35H3, MATA36H3, or MATA37H3 is a suitable corequisite for PHYA22H3. However, MATA35H3 is not an accepted corequisite for PHYA21H3. Only MATA36H3 or MATA37H3 will are accepted as corequisites for PHYA21H3. In addition, please keep in mind that:
    a. MATA35H3 is the course best suited for students in life sciences programs that are not planning to pursue further physical sciences programs or advanced MAT courses.
    b. MATA36H3 is the recommended course for students interested in programs in physical sciences and not planning on advanced MAT courses.
    c. MATA37H3 is the recommended course for students interested in programs in physical sciences in conjunction with advanced MAT courses.
3. Students planning to combine a program listed below with any program in mathematics are advised to take MATA37H3 as this course provides the background and pre-requisite for advanced MAT courses.
4. MATA67H3 is a prerequisite for MATA37H3. Additionally, MATA67H3 is a recommended course for students pursuing any of the programs listed below as it will enhance the foundational skills required for discussions on the theories presented in advanced courses in PHY, AST, and MAT.
5. Given the current nature of research in the physical sciences, students interested in any of the programs listed below are advised to take an introductory course in programming in their first year of studies. Suitable options include CSCA08H3 for students with interest in subsequent programming courses or CSCA20H3 for students without interest in subsequent programming courses.
6. MATB24H3 is a strongly recommended option for students in their second year of studies following any of the programs listed below. This course will enhance the mathematical preparation of students for topics in core areas of Classical Mechanics, Electromagnetism, and Quantum Mechanics, as well as provide quantitative and analytical skills needed for advanced studies in most fields in physical sciences.
7. PHYD01H3 and PHYD72H3 have a minimum CGPA requirement of 2.5. Students who do not meet the minimum requirement will not be given permission to take these courses, and will not be able to complete programs that include these courses as a requirement.

Combined Degree Programs, Honours Bachelor of Science/ Master of Engineering

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Engineering (MEng) offered by the Faculty of Applied Science and Engineering allow exceptional students who are registered in the Specialist/Specialist Co-op programs in Environmental Physics to apply during Year 3 of their studies, and be considered, for admission to the MEng programs in either Chemical Engineering & Applied Chemistry or Civil Engineering. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

Combined Degree Programs options are:

- Environmental Physics (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Combined Degree Programs, Honours Bachelor of Science/ Master of Environmental Science
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Combined Degree Programs options are:

- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the Calendar.

Combined Degree Programs, Honours Bachelor of Science/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Experiential Learning and Outreach**Experiential Learning and Outreach**
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Physics And Astrophysics Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENGINEERING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) and Master of Engineering (MEng) allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to the Faculty of Engineering & Applied Chemistry MEng programs in either Chemical Engineering & Applied Chemistry or Civil Engineering.

Contact Information:
Mandy Meriano(416-208-2775)
Email: mmeriano@utsc.utoronto.ca

Combined Degree Programs options are:

- Environmental Biology (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Biology (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Chemical Engineering & Applied Chemistry, Master of Engineering
- Environmental Physics (Specialist), Honours Bachelor of Science/ Civil Engineering, Master of Engineering
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Civil Engineering, Master of Engineering

Application Process:

- UTSC students in Year 3 of one the identified HBSc programs who are interested in one of the identified CDPs must contact Professor M. Meriano before the end of the Fall session.
- Qualified UTSC students will be able to apply to their selected CDP.
- UTSC students who are accepted to the CDP will receive a conditional offer to start the Master of Engineering (MEng) program upon completion of their HBSc program requirements.

Minimum Admission Requirements:

- Applicants must meet the admission requirements of the HBSc program, the School of Graduate Studies, and the MEng program.
- Applicants to the HBSc program must:
  - be enrolled full-time and in good standing;
  - have a B+ average (CGPA of 3.3) or higher in Year 2;
  - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer).
- Applicants to the MEng program must:
  - maintain a B+ average (CGPA of 3.3) or higher in Year 3 and Year 4 of their HBSc program;
  - complete the requirements of their HBSc program;
  - be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBSc degree requirements:
  - students must complete all HBSc program requirements and degree requirements;
  - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
  - in Year 3, qualified students may apply to the CDP and may be offered conditional admission to the MEng program;
  - in Year 4, students who receive a conditional offer of admission to the CDP and MEng:
    - **must complete two prescribed undergraduate engineering half courses** (1.0 credit) as part of the HBSc degree requirements;
    - may complete up to 1.0 credit in graduate courses with the permission of either the Department of Chemical Engineering and Applied Chemistry or Department of Civil Engineering (depending on the selected CDP); these courses can be counted towards the completion of both the HBSc degree requirements and the MEng program and degree requirements.
  - by the end of Year 4, fulfill both the undergraduate program requirements and the undergraduate degree requirements.
- Year 5: Remaining MEng program and degree requirements:
  - conditions of admission are removed;
  - complete 5.0 credits in MEng courses; students who have completed up to 1.0 credit in MEng courses in Year 4 may subtract those courses from the total 5.0 credits required.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF ENVIRONMENTAL SCIENCE

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Environmental Science (MEnvSc) offered by the Graduate Department of Physical and Environmental Sciences allow exceptional students who are registered in one of the Specialist/Specialist Co-op programs identified below to apply during Year 3 of their studies, and be considered, for admission to

the MEnvSc program. They are designed for students interested in pursuing a career in environmental sciences within the green-sector, geosciences, industry, consulting, government and policy organizations. These Combined Degree Programs give students the opportunity to: (1) begin exploring their academic interests in Year 4 of their studies; (2) complete 1.0 credit in courses that may be counted towards both degrees; and (3) enrol in the MEnvSc in the Summer session between Years 4 and 5 in order to complete either a two-month academic or internship opportunity, in addition to the mandatory four-month academic or internship opportunity completed in the MEnvSc program alone.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Biological Sciences

- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science

Department of Physical and Environmental Sciences

- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Geoscience (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Environmental Science
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Environmental Science

Application Process:

- Applicants must apply to the Honours Bachelor of Science (HBSc) program, the MEnvSc program, and the CDP.
- Qualified students in Year 3 of their HBSc degree program apply to the MEnvSc program and their chosen CPD through the SGS Online Admission Application system:
    - students will select one of the three fields of study within the MEnvSc program at the time of application:
        - Climate Change Impacts and Adaptation
        - Conservation and Biodiversity, or
        - Terrestrial and Aquatic Systems

- those accepted will receive a conditional offer to start the MEnvSc program upon completion of their HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MEnvSc program and the selected CDP**, applicants must meet the following admission requirements:

- Be admitted to the HBSc degree and one of the above listed undergraduate programs at UTSC.
- Meet the minimum admission requirements of the School of Graduate Studies and the MEnvSc program.
- Be enrolled full-time and in good standing in the HBSc program:
  - have a B+ average (CGPA of 3.3) or higher in Year 2;
  - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Complete the following undergraduate courses as part of the HBSc degree requirements:
  - Students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
    - BIOC63H3 Conservation Biology (0.5 credit)
    - BIOD54H3 Applied Conservation Biology (0.5 credit)
  - Students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
    - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
    - EESD10Y3 Research Project in Environmental Science (1.0 credit)

To be given **full, unconditional admission to the MEnvSc program**, applicants must meet the following admission requirements:

- Maintain a B+ average (CGPA of 3.3) or higher in their final year of study in the HBSc program or over upper-level (C- and D-level) courses.
- Achieve at least a grade of B- (70%) in both of the graduate courses taken in Year 4 of undergraduate study; these courses must be chosen in consultation with the Graduate Program Supervisor:
  - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
  - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
  - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 4: HBSc degree requirements
  - students must complete all HBSc program requirements and degree requirements;
  - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year; where necessary, exceptions will be made for students in Co-op programs;
  - students who receive a conditional offer of admission to the CDP must complete the following undergraduate courses:

        - students in the Specialist in Conservation and Biodiversity or the Specialist in Integrative Biology:
            - BIOC63H3 Conservation Biology (0.5 credit)
            - BIOD54H3 Applied Conservation Biology (0.5 credit)
        - students in the Specialist/Specialist Co-op programs in Environmental Biology, Environmental Chemistry, Environmental Geoscience, or Environmental Physics:
            - EESC24H3 Advanced Readings in Environmental Science (0.5 credit)
            - EESD10Y3 Research Project in Environmental Science (1.0 credit)
    - students must complete 1.0 credit in graduate courses, chosen in consultation with the Graduate Program Supervisor, as follows:
        - for the field in Climate Change Impacts and Adaptation: EES 1133H Climate Change Science and Modelling (0.5 credit), plus an additional 0.5 credit;
        - for the field in Conservation and Biodiversity: EES 3002H Conservation Policy (0.5 credit), plus an additional 0.5 credit;
        - for the field in Terrestrial and Aquatic Systems: 1.0 credit.
- Optional registration in the Summer session prior to Year 5:
    - students complete one of the following opportunities:
        - EES 4001H Internship Training (0.5 credit)
        - EES 4003H Academic Training (0.5 credit)
- Year 5: Remaining MEnvSc program and degree requirements.

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching

- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology	Science - Biology

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology	Social Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;

    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).

- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN ENVIRONMENTAL PHYSICS (SCIENCE)

Supervisors of Studies: Julian Lowman (416-208-4880) Email: lowman@utsc.utoronto.ca

Program Requirements
Total Requirements: 16.0 credits

First Year (4.0 credits):
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
EESA06H3 Introduction to Planet Earth
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

Second Year (4.5 credits):
EESB19H3 Mineralogy
MATB41H3 Techniques of Calculus of Several Variables I
MATB42H3 Techniques of Calculus of Several Variables II
MATB44H3 Differential Equations I
PHYB10H3 Intermediate Physics Laboratory I
PHYB21H3 Electricity and Magnetism
PHYB54H3 Mechanics: From Oscillations to Chaos
and
1.0 credit from the following:
EESB02H3 Principles of Geomorphology
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History

Third Year (4.0 credits):
EESB20H3 Sedimentology and Stratigraphy
MATC46H3 Differential Equations II
PSCB57H3 Introduction to Scientific Computing
STAB22H3 Statistics I
and
1.5 credits from the following:
EESB21H3 Exploration Geophysics
EESB26H3 Introduction to Global Geophysics
EESC26H3 Seismology and Seismic Methods
PHYB52H3 Thermal Physics
PHYC11H3 Intermediate Physics Laboratory II
PHYC50H3 Electromagnetic Theory
PHYC54H3 Classical Mechanics
and

0.5 credit from the following:
CHMB55H3 Environmental Chemistry
EESC07H3 Groundwater
EESC18H3 Limnology
EESC19H3 Oceanography
EESC20H3 Geochemistry
EESC31H3 Glacial Geology

Fourth Year (3.5 credits):
EESC36H3 Petrology
EESC37H3 Structural Geology
EESD21H3 Geophysical and Climate Data Analysis
PHYD37H3 Introduction to Fluid Mechanics
and
1.5 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
EESC03H3 Geographic Information Systems and Remote Sensing
EESD02H3 Contaminant Hydrogeology
EESD09H3 Research Project in Environmental Science*
EESD10Y3 Research Project in Environmental Science*
EESD13H3 Environmental Law, Policy and Ethics
EESD33H3 Field Techniques
PHYC50H3 Electromagnetic Theory
PHYC54H3 Classical Mechanics
PHYD01H3 Research Project in Physics and Astrophysics*
PHYD26H3 Planetary Geophysics
PHYD38H3 Nonlinear Systems and Chaos
PHYD72H3 Supervised Reading in Physics and Astrophysics*

*no more than two of EESD09H3, EESD10Y3, PHYD01H3, and PHYD72H3 may be counted as fulfilling the program requirements.
Note: Where any course appears on more than one option list, it may only be counted as fulfilling the requirements for one of those lists of options.

Strongly recommended: EESC16H3 Field Camp I or EESD07H3 Field Camp II or EESD33H3 Field Techniques.

SPECIALIST (CO-OPERATIVE) PROGRAM IN ENVIRONMENTAL PHYSICS (SCIENCE)

Co-op Supervisor of Studies: Julian Lowman (416-208-4880; Email: julian.lowman@utoronto.ca; and Tanzina Mohsin (416-287-7245); Email: tanzina.mohsin@utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Environmental Physics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Physics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 3.5 credits, including CHMA10H3, CHMA11H3, EESA06H3, MATA30H3, [MATA36H3 or MATA237H3], PHYA10H3 and PHYA21H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office (http://www.utsc.utoronto.ca/askcoop/future-co-op-students). Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in Specialist Program in Environmental Physics.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Environmental Physics and have completed at least 7.0 credits.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)

Supervisor: J. Bayer (416-287-7327) Email: j.bayer@utoronto.ca

Program Requirements:
The Program requires 13.5 credits as follows:

First Year
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
[MATA30H3 Calculus I for Physical Sciences or MATA31H3 Calculus I for Mathematical Sciences]
[MATA22H3 Linear Algebra I for Mathematical Sciences or MATA23H3 Linear Algebra I]
[MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]
CSCA20H3 Introduction to Programming*
*Note: CSCA08H3** may be substituted for CSCA20H3

Second Year
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
PHYB10H3 Intermediate Physics Laboratory I
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I

Third Year
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC54H3 Classical Mechanics
PSCB57H3 Introduction to Scientific Computing

MATC34H3 Complex Variables
MATC46H3 Differential Equations II

Fourth Year
1.5 credit from the following:
ASTC25H3 Astrophysics of Planetary Systems
PHYD26H3 Planetary Geophysics
PHYD27H3 Physics of Climate Modeling
PHYD28H3 Introduction to Magnetohydrodynamics for Astrophysics and Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PHYD57H3 Advanced Computational Methods in Physics
PHY452H1 Basic Statistical Mechanics
PHY456H1 Quantum Mechanics II
PHY483H1 Relativity Theory I
PHY484H1 Relativity Theory II
PHY487H1 Condensed Matter Physics
PHY489H1 Introduction to High Energy Physics
PHY491H1 Current Interpretations of Quantum Mechanics
PHY492H1 Advanced Atmospheric Physics
PSCD50H3 Advanced Topics in Quantum Mechanics
and
0.5 credit from the following:
PHYD01H3 Research Project in Physics and Astrophysics
PHYD72H3 Supervised Reading in Physics and Astrophysics
and
[0.5 credit from a course in AST or PHY at the C-, D-, 300-, or 400-level] or [PSCD02H3 Current Questions in Mathematics and Science]

Note: To satisfy prerequisite requirements of upper level Computer Science Courses, students planning to take such courses should take CSCA08H3, rather than CSCA20H3, which is otherwise preferred for this program.

MAJOR PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)

Supervisor: J. Bayer (416-287-7327) Email: j.bayer@utoronto.ca

Program Requirements
This program requires 8.5 credits as follows:

First Year
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA23H3 Linear Algebra I
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]

Second and Later Years
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II

MATB44H3 Differential Equations I
PHYB10H3 Intermediate Physics Laboratory I
and
1.5 credits from the following:
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
and
2.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC54H3 Classical Mechanics
PHYD26H3 Planetary Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Nonlinear Systems and Chaos
PSCB57H3 Introduction to Scientific Computing
PSCD02H3 Current Questions in Mathematics and Science
PSCD50H3 Advanced Topics in Quantum Mechanics
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]

Physics And Astrophysics Courses

PHYA10H3 - Physics I for the Physical Sciences

The course is intended for students in physical, environmental and mathematical sciences. The course introduces the basic concepts used to describe the physical world with mechanics as the working example. This includes mechanical systems (kinematics and dynamics), energy, momentum, conservation laws, waves, and oscillatory motion.

Prerequisite: Physics 12U - SPH4U (Grade 12 Physics) and Calculus and Vectors (MCV4U) and Advanced Functions (MHF4U)
Corequisite: MATA30H3 or MATA31H3
Exclusion: PHYA11H3, PHY131H, PHY135Y, PHY151H, (PHY110Y), (PHY138Y)
Breadth Requirements: Natural Sciences

PHYA11H3 - Physics I for the Life Sciences

This first course in Physics at the university level is intended for students enrolled in the Life sciences. It covers fundamental concepts of classical physics and its applications to macroscopic systems in one and three dimensions. It deals with two main themes; which are Particle and Fluid Mechanics and Waves and Oscillations. The approach will be phenomenological with applications related to life and biological sciences.

Prerequisite: Grade 12 Advanced Functions (MHF4U) and Grade 12 Calculus and Vectors (MCV4U)
Corequisite: (MATA20H3) or MATA29H3 or MATA30H3 or MATA31H3
Exclusion: PHYA10H3, PHY131H, PHY135Y, PHY151H, (PHY110Y), (PHY138Y)
Recommended Preparation: Grade 12 Physics (SPH4U)
Breadth Requirements: Natural Sciences

PHYA21H3 - Physics II for the Physical Sciences

This second physics course is intended for students in physical and mathematical sciences programs. Topics include electromagnetism and special relativity.

Prerequisite: PHYA10H3 and [MATA30H3 or MATA31H3]
Corequisite: [MATA36H3 or MATA37H3]
Exclusion: PHYA22H3, (PHY110Y1), PHY132H1, PHY135Y1, (PHY138Y1), PHY152H1
Breadth Requirements: Natural Sciences

PHYA22H3 - Physics II for the Life Sciences

The course covers the main concepts of Electricity and Magnetism, Optics, and Atomic and Nuclear Physics. It provides basic knowledge of these topics with particular emphasis on its applications in the life sciences. It also covers some of the applications of modern physics such as atomic physics and nuclear radiation.

Prerequisite: [PHYA10H3 or PHYA11H3 or (PHYA01H3)] and [MATA29H3 or MATA30H3 or MATA31H3]
Corequisite: (MATA21H3) or MATA35H3 or MATA36H3 or MATA37H3. Note: (MATA21H3) andMATA35H3 do not allow for many future programs in science.
Exclusion: PHYA21H3, (PHY110Y), PHY132H, PHY135Y, (PHY138Y), PHY152H
Breadth Requirements: Natural Sciences

PHYB01H3 - Modern Physics for Non-Scientists

A conceptual overview of some of the most interesting advances in physics and the intellectual background in which they occurred. The interrelationship of the actual practice of physics and its cultural and intellectual context is emphasized. (Space time; Symmetries; Quantum Worlds; Chaos.)

Prerequisite: 4.0 credits
Enrolment Limits: 50
Breadth Requirements: Natural Sciences

PHYB10H3 - Intermediate Physics Laboratory I

Experimental and theoretical study of AC and DC circuits with applications to measurements using transducers and electronic instrumentation. Practical examples are used to illustrate several physical systems.

Prerequisite: PHYA21H3, [MATA36H3 or MATA37H3]
Corequisite: MATB41H3
Exclusion: (PHYB23H3)
Enrolment Limits: 25
Breadth Requirements: Natural Sciences

PHYB21H3 - Electricity and Magnetism

A first course at the intermediate level in electricity and magnetism. The course provides an in-depth study of electrostatics and magnetostatics. Topics examined include Coulomb's Law, Gauss's Law, electrostatic energy, conductors, Ampere's Law, magnetostatic energy, Lorentz Force, Faraday's Law and Maxwell's equations.

Prerequisite: PHYA21H3 and MATB41H3
Corequisite: MATB42H3
Exclusion: PHY241H, PHY251H
Breadth Requirements: Natural Sciences

PHYB52H3 - Thermal Physics

The quantum statistical basis of macroscopic systems; definition of entropy in terms of the number of accessible states of a many particle system leading to simple expressions for absolute temperature, the canonical distribution, and the laws of thermodynamics. Specific effects of quantum statistics at high densities and low temperatures.

Prerequisite: PHYA21H3 and MATB41H3
Corequisite: MATB42H3
Exclusion: PHY252H1
Breadth Requirements: Natural Sciences

PHYB54H3 - Mechanics: From Oscillations to Chaos

The linear, nonlinear and chaotic behaviour of classical mechanical systems such as oscillators, rotating bodies, and central field systems. The course will develop analytical and numerical tools to solve such systems and determine their basic properties. The course will include mathematical analysis, numerical exercises (Python), and demonstrations of mechanical systems.

Prerequisite: PHYA21H3, MATB41H3, MATB44H3
Corequisite: MATB42H3
Exclusion: PHY254H, (PHYB20H3)
Breadth Requirements: Natural Sciences

PHYB56H3 - Introduction to Quantum Physics

The course introduces the basic concepts of Quantum Physics and Quantum Mechanics starting with the experimental basis and the properties of the wave function. Schrödinger's equation will be introduced with some applications in one dimension. Topics include Stern-Gerlach effect; harmonic oscillator; uncertainty principle; interference packets; scattering and tunnelling in one-dimension.

Prerequisite: PHYA21H3 and [MATA36H3 or MATA37H3]
Corequisite: MATB41H3
Exclusion: PHY256H1, (PHYB25H3)
Breadth Requirements: Natural Sciences

PHYC11H3 - Intermediate Physics Laboratory II

The main objective of this course is to help students develop skills in experimental physics by introducing them to a range of important measuring techniques and associated physical phenomena. Students will carry on several experiments in Physics and Astrophysics including electricity and magnetism, optics, solid state physics, atomic and nuclear physics.

Prerequisite: PHYB10H3, PHYB21H3, PHYB52H3
Exclusion: (PHYB11H3)
Enrolment Limits: 20
Breadth Requirements: Natural Sciences

PHYC50H3 - Electromagnetic Theory

Solving Poisson and Laplace equations via method of images and separation of variables, Multipole expansion for electrostatics, atomic dipoles and polarizability, polarization in dielectrics, Ampere and Biot-Savart laws, Multipole expansion in magnetostatics, magnetic dipoles, magnetization in matter, Maxwell’s equations in matter.

Prerequisite: PHYB54H3 and PHYB21H3 and [MATA22H3 or MATA23H3] and MATB42H3 and MATB44H3
Exclusion: PHY350H1
Breadth Requirements: Natural Sciences

PHYC54H3 - Classical Mechanics

A course that will concentrate in the study of symmetry and conservation laws, stability and instability, generalized co-ordinates, Hamilton’s principle, Hamilton’s equations, phase space, Liouville’s theorem, canonical transformations, Poisson brackets, Noether’s theorem.

Prerequisite: PHYB54H3, MATB44H3
Exclusion: PHY354H
Breadth Requirements: Natural Sciences

PHYC56H3 - Quantum Mechanics I

The course builds on the basic concepts of quantum theory students learned in PHYB56H3. Topics include the general structure of wave mechanics; eigenfunctions and eigenvalues; operators; orbital angular momentum; spherical harmonics; central potential; separation of variables; hydrogen atom; Dirac notation; operator methods; harmonic oscillator and spin.

Prerequisite: PHYB56H3 and PHYB21H3 and [MATA22H3 or MATA23H3] and MATB42H3 and MATB44H3
Exclusion: PHY356H1
Breadth Requirements: Natural Sciences

PHYC83H3 - Introduction to General Relativity

An introduction to the basic principles and mathematics of General Relativity. Tensors will be presented after a review of Special Relativity. The metric, spacetime, curvature, and Einstein's field equations will be studied and applied to the Schwarzschild solution. Further topics include the Newtonian limit, classical tests, and black holes.

Prerequisite: MATB42H3 and MATB44H3 and PHYB54H3
Corequisite: MATC46H3
Breadth Requirements: Natural Sciences

PHYD01H3 - Research Project in Physics and Astrophysics

Introduces students to current research in physics or astrophysics under the supervision of a professorial faculty member. Students undertake an independent project that can be of a theoretical, computational or experimental nature. Evaluation is by the supervising faculty member in consultation with the course supervisor. Students must obtain consent of the course supervisor to enroll in this course.

Prerequisite: 14.0 credits, cumulative GPA of at least 2.5, and permission from the coordinator.
Exclusion: PHY478H, PHY479Y1
Breadth Requirements: Natural Sciences

PHYD26H3 - Planetary Geophysics

A course introducing some of the key physical processing governing the evolution of planets and moons. Topics covered will include: planetary heat sources and thermal evolution, effects of high temperature and pressure in planetary interiors, planetary structure and global shape; gravity, rotation, composition and elasticity.

Prerequisite: Completion of at least 1.0 credit at the C-level in PHY or AST courses
Breadth Requirements: Natural Sciences
Note: No previous knowledge of Earth Sciences or Astrophysics is assumed.

PHYD27H3 - Physics of Climate Modeling

A course introducing the main physical concepts needed to describe, model and understand the climate systems of Earth and other planets. Topics covered will include: the primitive equations of meteorology, radiative transfer in atmospheres, processes involved in atmosphere-surface exchanges, atmospheric chemistry (condensable species, atmospheric opacities), numerical methods for climate modeling.

Prerequisite: PHYB52H3 and PSCB57H3 and MATC46H3
Breadth Requirements: Natural Sciences
Note: No previous knowledge of Climate Science is assumed.

PHYD28H3 - Introduction to Magnetohydrodynamics for Astrophysics and Geophysics

A course introducing the basic concepts of magnetohydrodynamics (broadly defined as the hydrodynamics of magnetized fluids). Topics covered will include: the essentials of hydrodynamics, the magnetohydrodynamics (MHD) approximation, ideal and non-ideal MHD regimes, MHD waves and shocks, astrophysical and geophysical applications of MHD.

Prerequisite: PSCB57H3 and PHYC50H3 and MATC46H3
Breadth Requirements: Natural Sciences

PHYD37H3 - Introduction to Fluid Mechanics

A course describing and analyzing the dynamics of fluids. Topics include: Continuum mechanics; conservation of mass, momentum and energy; constituitive equations; tensor calculus; dimensional analysis; Navier-Stokes fluid equations; Reynolds number; Inviscid and viscous flows; heat conduction and fluid convection; Bernoulli's equation; basic concepts on boundary layers, waves, turbulence.

Prerequisite: PHYB54H3 and MATC46H3
Breadth Requirements: Natural Sciences

PHYD38H3 - Nonlinear Systems and Chaos

The theory of nonlinear dynamical systems with applications to many areas of physics and astronomy. Topics include stability, bifurcations, chaos, universality, maps, strange attractors and fractals. Geometric, analytical and computational methods will be developed.

Prerequisite: PHYC54H3
Exclusion: PHY460H
Breadth Requirements: Natural Sciences

PHYD57H3 - Advanced Computational Methods in Physics

Intermediate and advanced topics in numerical analysis with applications to physical sciences. Ordinary and partial differential equations with applications to potential theory, particle and fluid dynamics, multidimensional optimization and machine intelligence, are explained. The course includes programming in Python, and C or Fortran, allowing multi-threading and vectorization on multiple platforms.

Prerequisite: PSCB57H3
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist in Physical and Mathematical Sciences and the Major in Physical Sciences.

PHYD72H3 - Supervised Reading in Physics and Astrophysics

An individual study program chosen by the student with the advice of, and under the direction of a faculty member. A student may take advantage of this course either to specialize further in a field of interest or to explore interdisciplinary fields not available in the regular syllabus.

Prerequisite: 14.0 credits, cumulative GPA of at least 2.5, and permission from the coordinator.
Exclusion: PHY371H, PHY372H, PHY471H, PHY472H
Breadth Requirements: Natural Sciences

Political Science

Faculty List

- E. Acorn, B.A. (Victoria University), M.A. (Dalhousie), J.D. (Toronto), Ph.D. (Cornell University)
- A. Ahmad, B.A., M.A. (Toronto), Ph.D. (McGill), Assistant Professor
- E.G. Andrew, B.A. (British Columbia), Ph.D. (London), Professor Emeritus
- C. Cochrane, B.A. (St. Thomas), M.A. (McGill), Ph.D. (Toronto), Associate Professor
- S.J. Colman, M.A. (Oxon.), Professor Emeritus
- D. Fu, B.A. (Minnesota), M.Phil, Ph.D. (Oxford), Associate Professor
- M. Hoffmann, B.S. (Michigan Technological University), Ph.D. (George Washington University), Professor
- R. Hurl, B.A. (Toronto), M.A., Ph.D. (Cornell University), Lecturer
- F. Kahraman, B.A. (Boğaziçi University), M.A., Ph.D. (Washington), Assistant Professor
- P. Kingston, B.A. (Toronto), M.A. (London), D.Phil. (Oxford), Professor
- N. Klenk, B.Sc., M.Sc. (McGill), Ph.D. (UBC), Associate Professor
- M.L. Kohn, B.A. (Williams College), M.A., Ph.D. (Cornell University), Professor
- R. Levine, B.A. (Rochester), Ph.D. (Duke), Associate Professor, Teaching Stream
- R. Manzer, B.A., B.Ed. (New Brun.), M.A. (Oxon.), Ph.D. (Harvard), Professor Emeritus
- A. McDougall, B.A. (Toronto), M.A. (Queens), LL.B. (Queens), Ph.D. (Toronto)
- C. Norrlof, B.A., M.A. (Lund), Ph.D. (Geneva), Associate Professor
- S. Renckens, B.A., M.A., M.Sc. (Leuven), Ph.D. (Yale), Assistant Professor
- A. Rubinoff, A.B. (Allegheny), M.A., Ph.D. (Chicago), Professor Emeritus
- R. Schertzer, B.A. (Carleton), M.Sc., Ph.D. (London School of Economics), Associate Professor
- T. Shanks, B.A. (Berkeley), Ph.D. (Northwestern), Associate Professor
- G. Skogstad, B.A., M.A. (Alberta), Ph.D. (British Columbia), Professor
- S. Solomon, B.A. (McGill), M.A., Ph.D. (Columbia), Professor Emerita
- J. Teichman, B.A., M.A., Ph.D. (Toronto), FRSC, Professor
- P. Triadafilopoulos, B.A. (Toronto), M.A., (Brock), Ph.D. (New School NY), Associate Professor
- L. Way, B.A. (Harvard), M.A., Ph.D. (UC Berkeley), Professor

Chair: M. Kohn
Program Advisor Email: pol-advisor@utsc.utoronto.ca

Political Science is the study of enduring issues of power and authority, citizenship and governance, justice and legitimacy, and patterns of conflict and co-operation that arise around these issues from ancient to modern times. Political Science is divided into the following areas of focus:
Canadian Government and Politics: content covers the political-institutional foundations, political processes and public policies of Canada.
Comparative Politics (Developing and Developed Countries)**:** courses cover problems of political change and development in areas such as Asia, Europe, Latin America, and the Middle East. Political participation and mobilization, transitions to democracy and ethnic and religious conflict are some of the themes dealt with in comparative politics courses.
International Relations: courses focus on studying the foreign policies of particular nation-states and the patterns of conflict and co-operation among states.
Political Theory: courses explore the ideas, such as justice and legitimacy, that are fundamental to political thought and practice, giving special attention to reading and interpreting the classic

expositions of politics from ancient Greek philosophers to post-modern social theorists
Public Policy: courses examine the context, institutions, and processes of policy-making and implementation, as well as concepts and criteria for policy evaluation.

Guidelines for first-year course selection
Students who intend to complete the Political Science or Public Policy programs should include the following in their first-year course selection:

- Political Science: 1.0 credit at the A-level in Political Science.
- Public Policy: 1.0 credit at the A- or B-level in Anthropology, City Studies, Geography, International Development Studies, Political Science or Sociology; at least 0.5 credit at the A-level in Political Science is recommended.

Political Science Areas of Focus Table:
* indicates a course can be applied to more than one field

International Relations	Political Theory	Public Policy	Canadian Government and Politics	Com
POLB80H3	POLB30H3	POLC11H3	POLB50Y3	PO
POLB81H3	POLB72H3	POLC36H3	POLC21H3*	PO
POLC09H3	POLC37H3	POLC53H3*	POLC32H3	PO
POLC38H3	POLC70H3	POLC54H3*	POLC33H3	PO
POLC69H3	POLC71H3	POLC57H3*	POLC53H3*	PO
POLC80H3	POLC72H3	POLC65H3	POLC54H3*	PO
POLC83H3*	POLC73H3	PPGC66H3*	POLC56H3	PO
POLC87H3	POLC74H3	PPGC67H3*	POLC57H3*	PO
POLC88H3	POLC79H3	POLC68H3*	POLC58H3*	PO
POLC98H3	POLD30H3	POLC83H3*	POLC59H3	PO
POLD09H3	POLD45H3	POLC93H3*	PPGC66H3*	PP
POLD38H3	POLD67H3*	POLD50H3*	PPGC67H3*	PO
POLD87H3	POLD70H3	POLD52H3*	POLC68H3*	PO
POLD89H3		PPGD64H3*	POLD50H3*	PO
		POLD67H3*	POLD51H3*	PO
		POLD90H3*	POLD52H3*	PO
			POLD53H3	PO
			POLD58H3	PO
				PO
				PO
				PO
				PO
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Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Political Science Programs

SPECIALIST PROGRAM IN POLITICAL SCIENCE (ARTS)

Program Requirements
Students must complete at least 12.0 full credits in Political Science including:

1. Introduction to Political Science (1.0 credit):
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II

2. Political Theory (1.0 credit):
POLB72H3 Introduction to Political Theory
0.5 credit from among the courses listed in the Political Theory Area of Focus Table

3. Canadian Politics (1.0 credit):
POLB50Y3 Canadian Government and Politics

4. At least four of the following (2.0 credits):
POLB80H3 Introduction to International Relations I
POLB81H3 Introduction to International Relations II
POLB90H3 Comparative Development in International Perspective
POLB91H3 Comparative Development in Political Perspective
POLB92H3 Comparative Politics: Revolution, Democracy and Authoritarianism

5. Methods (1.0 credit):
[STAB23H3 Introduction to Statistics for the Social Sciences or equivalent]
POLC78H3 Political Analysis I

6. Applications (5.0 credits):
5.0 credits in POL or PPG courses at the C- and/or D-level

7. Advanced Applications (1.0 credit)
At least 1.0 credit in POL or PPG courses at the D-level

MAJOR PROGRAM IN POLITICAL SCIENCE (ARTS)

Program Requirements
Students must complete at least 8.0 credits in Political Science as follows:

1. Introduction to Political Science (1.0 credit):
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II

2. Political Theory (1.0 credit):
POLB72H3 Introduction to Political Theory
0.5 credit from among the courses listed in the Political Theory Area of Focus Table

3. Canadian Politics (1.0 credit):
POLB50Y3 Canadian Government and Politics

4. At least two of the following (1.0 credit):
POLB80H3 Introduction to International Relations I
POLB81H3 Introduction to International Relations II
POLB90H3 Comparative Development in International Perspective
POLB91H3 Comparative Development in Political Perspective
POLB92H3 Comparative Politics: Revolution, Democracy and Authoritarianism

5. Methods (1.0 credit):
[STAB23H3 Introduction to Statistics for the Social Sciences or equivalent]
POLC78H3 Political Analysis I

6. Applications (2.5 credits):
2.5 credits in POL or PPG courses of which at least 2.0 must be at the C- and/or D-level

7. Advanced Applications (0.5 credit)
At least 0.5 credit in POL or PPG courses at the D-level

MINOR PROGRAM IN POLITICAL SCIENCE (ARTS)

Program Requirements
The Program requires the completion of 4.0 credits, including at least 2.0 credits at the C- or D-level. The program may be completed in one of two ways:

1. 4.0 credits above the A-level in any single Area of Focus*
*See the Political Science Areas of Focus Table for courses in each Area

or

2. 2.0 credits each from a combination of any two Area(s) of Focus*
*See the Political Science Areas of Focus Table for courses in each Area.
The Area(s) of Focus are:
- Canadian Government and Politics
- Political Theory
- International Relations

- Comparative Politics
- Public Policy

MINOR PROGRAM IN PUBLIC LAW (ARTS)

The Minor in Public Law examines how the legal system, of which the constitutional order and judiciary are integral parts, governs the relationship both among constituent units of the state and between citizens and the state. It also examines the obligations that states have to one another via international law. Courses in the program address the normative foundations of principles of justice and human rights; the role of constitutions and courts in safeguarding the rule of law, protecting civil liberties, and curbing state power; the constraints to state sovereignty posed by international law and international courts; and the implications of the legal order for democratic and legitimate policy-making.

Program Requirements
Students must complete 4.0 credits, of which at least 1.0 credit must be at the C- and/or D-level.

1. Core Courses as follows (2.5 credits):
POLB30H3 Law, Justice and Rights
POLB50Y3 Canadian Government and Politics
POLC32H3 The Canadian Judicial System
POLC68H3 The Constitution of Canada and the Charter of Rights and Freedoms

2. Public Law Electives (1.0 credit from the following):
POLC33H3 Politics of International Human Rights
POLC34H3 The Politics of Crime
POLC36H3 Law and Public Policy
POLC38H3 International Law
POLC39H3 Comparative Law and Politics
POLC56H3 Indigenous Politics and Law
POLD30H3 Legal Reasoning
POLD38H3 Law and Global Business
POLD42H3 Advanced Topics in Public Law
POLD44H3 Comparative Law and Social Change
POLD45H3 Constitutionalism

3. 0.5 credit from requirement 2 above or an appropriate course from another discipline, including at the UTSC, UTM and St. George campuses, as approved by the Public Law Program Advisor.

Political Science Courses

POLA01H3 - Critical Issues in Politics I

An introduction to crucial political issues of the day (e.g. globalization, migration, political violence, corruption, democracy, global justice, climate change, human rights, revolution, terrorism) and key concepts in Political Science. Students will be introduced to and practice techniques of critical reading and analytic essay writing. Topics will vary by semester and professor.

Exclusion: POL101Y, POL115H, POL112H, POL113H, POL114H
Breadth Requirements: Social & Behavioural Sciences
Note: POLA01H3 and POLA02H3 are not sequential courses and can be taken out of order or concurrently.

POLA02H3 - Critical Issues in Politics II

An introduction to crucial political issues of the day (e.g. globalization, migration, political violence, corruption, democracy, global justice, climate change, human rights, revolution, terrorism) and key concepts in Political Science. Students will develop techniques of critical reading and analytic essay writing. Topics will vary by semester and professor.

Exclusion: POL101Y, POL115H, POL112H, POL113H, POL114H
Breadth Requirements: Social & Behavioural Sciences
Note: POLA01H3and POLA02H3 are not sequential courses and can be taken out of order or concurrently.

POLB30H3 - Law, Justice and Rights

This is a lecture course that helps students understand the theoretical justifications for the rule of law. We will study different arguments about the source and limitations of law: natural law, legal positivism, normative jurisprudence and critical theories. The course will also examine some key court cases in order to explore the connection between theory and practice. This is the foundation course for the Minor program in Public Law.
Area of Focus: Political Theory

Prerequisite: Any 4.0 credits
Exclusion: PHLB11H3 (students who have taken PHLB11H3 prior to POLB30H3 may count PHLB11H3 in place of POLB30H3 in the Minor in Public Law)
Recommended Preparation: 0.5 credit in Political Science
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in the Minor program in Public Law. Additional students will be admitted as space permits.

POLB50Y3 - Canadian Government and Politics

This course examines the institutional foundations and principles of Canadian government, and the social, cultural, and historical factors that shape its politics. Topics covered are the Canadian constitution, the executive, parliament, the public service, the federal system, the Charter of Rights and Freedoms, the courts, political parties, the electoral system, interest groups, social movements, Quebec nationalism, and aboriginal self-determination.
Area of Focus: Canadian Government and Politics

Prerequisite: Any 4.0 credits.
Exclusion: (POLB50H3), (POLB52H3), POL214Y, POL224Y
Breadth Requirements: Social & Behavioural Sciences

POLB72H3 - Introduction to Political Theory

This course presents a general introduction to political theory and investigates central concepts in political theory, such as liberty, equality, democracy, and the state. Course readings will include classic texts such as Plato, Aristotle, Hobbes, Rousseau, and Marx, as well as contemporary readings.
Area of Focus: Political Theory

Prerequisite: Any 4.0 credits
Exclusion: PHLB17H3
Breadth Requirements: History, Philosophy & Cultural Studies

POLB80H3 - Introduction to International Relations I

This course examines different approaches to international relations, the characteristics of the international system, and the factors that motivate foreign policies.
Area of Focus: International Relations

Prerequisite: Any 4.0 credits
Exclusion: POL208Y
Breadth Requirements: Social & Behavioural Sciences

POLB81H3 - Introduction to International Relations II

This course examines how the global system is organized and how issues of international concern like conflict, human rights, the environment, trade, and finance are governed.
Area of Focus: International Relations

Prerequisite: POLB80H3 NoteIt is strongly recommended that students take POLB80H3 and POLB81H3 in consecutive sessions.
Exclusion: POL208Y
Breadth Requirements: Social & Behavioural Sciences

POLB90H3 - Comparative Development in International Perspective

This course examines the historical and current impact of the international order on the development prospects and politics of less developed countries. Topics include colonial conquest, multi-national investment, the debt crisis and globalization. The course focuses on the effects of these international factors on domestic power structures, the urban and rural poor, and the environment.
Area of Focus: Comparative Politics

Prerequisite: Any 4.0 credits
Exclusion: POL201Y
Breadth Requirements: Social & Behavioural Sciences

POLB91H3 - Comparative Development in Political Perspective

This course examines the role of politics and the state in the processes of development in less developed countries. Topics include the role of the military and bureaucracy, the relationship between the state and the economy, and the role of religion and ethnicity in politics.
Area of Focus: Comparative Politics

Prerequisite: POLB90H3 Note: It is strongly recommended that students take POLB90H3 and POLB91H3 in consecutive sessions.
Exclusion: POL201Y
Breadth Requirements: Social & Behavioural Sciences

POLB92H3 - Comparative Politics: Revolution, Democracy and Authoritarianism

This course explores the origins of modern political institutions in Europe through an examination of revolutions, democracy, and authoritarianism in Europe since 1789. Specific case studies include the French Revolution, democratization in Britain and Spain, the Russian Revolution and the rise of the Nazis in Germany.
Area of Focus: Comparative Politics

Prerequisite: Any 4.0 credits
Breadth Requirements: Social & Behavioural Sciences

POLC09H3 - International Security: Conflict, Crisis and War

This course explores the causes and correlates of international crises, conflicts, and wars. Using International Relations theory, it examines why conflict occurs in some cases but not others. The course examines both historical and contemporary cases of inter-state conflict and covers conventional, nuclear, and non-traditional warfare.
Area of Focus: International Relations

Prerequisite: POLB80H3 and POLB81H3
Breadth Requirements: Social & Behavioural Sciences

POLC11H3 - Applied Statistics for Politics and Public Policy

In this course, students learn to apply data analysis techniques to examples drawn from political science and public policy. Students will learn to complete original analyses using quantitative techniques commonly employed by political scientists to study public opinion and government policies. Rather than stressing mathematical concepts, the emphasis of the course will be on the application and interpretation of the data as students learn to communicate their results through papers and/or presentations.

Prerequisite: STAB23H3 or equivalent
Exclusion: (POLB11H3)
Breadth Requirements: Quantitative Reasoning

POLC16H3 - Chinese Politics

This course covers a range of topics in contemporary Chinese politics and society post 1989. It exposes students to state of the art literature and probes beyond the news headlines. No prior knowledge of China required.
Area of Focus: Comparative Politics

Prerequisite: POLB90H3 or POLB91H3
Exclusion: JPA331Y, JMC031Y
Breadth Requirements: Social & Behavioural Sciences

POLC21H3 - Voting and Elections

Why do some citizens vote when others do not? What motivates voters? This course reviews theories of voting behaviour, the social and psychological bases of such behaviour, and how candidate and party campaigns influence the vote. By applying quantitative methods introduced in STAB23H3 or other courses on statistical methods, students will complete assignments examining voter behaviour in recent Canadian and/or foreign elections using survey data and election returns.
Areas of Focus: Canadian Government and Politics; Comparative Politics

Prerequisite: [STAB23H3 or equivalent] or POL242Y
Exclusion: POL314H, POL314Y
Breadth Requirements: Social & Behavioural Sciences

POLC22H3 - Ethnic Conflict and Democratization in Europe After the Cold War

This course explores post-Cold War politics in Europe through an examination of democratization and ethnic conflict since 1989 - focusing in particular on the role of the European Union in shaping events in Eastern Europe and the former Soviet Union. The first part of the course will cover theories of democratization, ethnic conflict as well as the rise of the European Union while the second part of the course focuses on specific cases, including democratization and conflict in the Balkans and Ukraine.
Area of Focus: Comparative Politics

Prerequisite: Any 8.0 credits
Exclusion: (POLB93H3)
Breadth Requirements: Social & Behavioural Sciences

POLC32H3 - The Canadian Judicial System

This course explores the structure, role and key issues associated with the Canadian judicial system. The first section provides the key context and history associated with Canada's court system. The second section discusses the role the courts have played in the evolution of the Canadian constitution and politics – with a particular focus on the Supreme Court of Canada. The final section analyzes some of the key debates and issues related to the courts in Canada, including their democratic nature, function in establishing public policy and protection of civil liberties.
Area of Focus: Canadian Government and Politics

Prerequisite: POLB50Y3
Recommended Preparation: POLB30H3
Breadth Requirements: Social & Behavioural Sciences

POLC33H3 - Politics of International Human Rights

This course aims to provide students with an overview of the way human rights laws, norms, and institutions have evolved. In the first half of the class, we will examine the legal institutions and human rights regimes around the world, both global and regional. In the second half, we will take a bottom-up view by exploring how human rights become part of contentious politics. Special attention will be given to how human rights law transform with mobilization from below and how it is used to contest, challenge and change hierarchical power relationships. The case studies from the Middle East, Latin America, Europe and the US aim at placing human rights concerns in a broader sociopolitical context.

Area of Focus: Canadian Government and Politics

Prerequisite: POLB30H3
Recommended Preparation: POLB90H3 and POLB91H3
Breadth Requirements: Social & Behavioural Sciences

POLC34H3 - The Politics of Crime

This course will explore how the world of criminal justice intersects with the world of politics. Beginning with a history of the “punitive turn” in the criminal justice policy of the late 1970s, this course will look at the major political issues in criminal justice today. Topics studied will include the constitutional context for legislating the criminal and quasi-criminal law, race and class in criminal justice, Canada’s Indigenous peoples and the criminal justice system, the growth of restorative justice, drug prohibition and reform, the value of incarceration, and white-collar crime and organizational liability. More broadly, the class aims to cover why crime continues to be a major political issue in Canada and the different approaches to addressing its control.

Area of focus: Comparative Politics

Prerequisite: POLB30H3 and POLB50Y3
Breadth Requirements: Social & Behavioural Sciences

POLC36H3 - Law and Public Policy

This course examines how different types of legal frameworks affect processes and outcomes of policy-making. It contrasts policy-making in Westminster parliamentary systems and separation of powers systems; unitary versus multi-level or federal systems; and systems with and without constitutional bills of rights.
Area of Focus: Public Policy

Prerequisite: POLB50Y3
Recommended Preparation: (POLC66H3) or PPGC66H3
Breadth Requirements: Social & Behavioural Sciences

POLC37H3 - Global Justice

This course examines theoretical debates about the extent of moral and political obligations to non-citizens. Topics include human rights, immigration, global poverty, development, terrorism, and just war.
Area of Focus: Political Theory

Prerequisite: [(POLB70H3) and (POLB71H3)] or POLB72H3 or [1.0 credit at the B-level in IDS courses]
Exclusion: (PHLB08H3)
Breadth Requirements: History, Philosophy & Cultural Studies

POLC38H3 - International Law

This course introduces students to the foundations of international law, its sources, its rationale, and challenges to its effectiveness and implementation. Areas of international law discussed include the conduct of war, trade, and diplomacy, as well as the protection of human rights and the environment.
Area of Focus: International Relations

Prerequisite: POLB30H3 or POLB80H3
Exclusion: POL340Y
Breadth Requirements: Social & Behavioural Sciences

POLC39H3 - Comparative Law and Politics

This course examines the interaction between law, courts, and politics in countries throughout the world. We begin by critically examining the (alleged) functions of courts: to provide for “order,” resolve disputes, and to enforce legal norms. We then turn to examine the conditions under which high courts have expand their powers by weighing into contentious policy areas and sometimes empower individuals with new rights. We analyze case studies from democracies, transitioning regimes, and authoritarian states.

Prerequisite: POLB30H3
Recommended Preparation: POLB92H3 or (POLB93H3)
Breadth Requirements: Social & Behavioural Sciences

POLC40H3 - Current Topics in Politics

Topics and Area of Focus will vary depending on the instructor.

Prerequisite: One B-level full credit in Political Science
Breadth Requirements: Social & Behavioural Sciences

POLC42H3 - Topics in Comparative Politics

Topics will vary depending on the regional interests and expertise of the Instructor.
Area of Focus: Comparative Politics

Prerequisite: One B-level full credit in Political Science
Breadth Requirements: Social & Behavioural Sciences

POLC53H3 - Canadian Environmental Policy

This course examines the ideas and success of the environmental movement in Canada. The course focuses on how environmental policy in Canada is shaped by the ideas of environmentalists, economic and political interests, public opinion, and Canada's political-institutional framework. Combined lecture-seminar format.
Areas of Focus: Canadian Government and Politics; Public Policy

Prerequisite: [POLB50Y3 or equivalent] or ESTB01H3 or [1.5 credits at the B-level in CIT courses]
Breadth Requirements: Social & Behavioural Sciences

POLC54H3 - Intergovernmental Relations in Canada

This course examines relations between provincial and federal governments in Canada, and how they have been shaped by the nature of Canada's society and economy, judicial review, constitutional amendment, and regionalisation and globalization. The legitimacy and performance of the federal system are appraised. Lecture-seminar format.
Areas of Focus: Canadian Government and Politics; Public Policy

Prerequisite: POLB50Y3 or equivalent
Exclusion: POL316Y
Breadth Requirements: Social & Behavioural Sciences

POLC56H3 - Indigenous Politics and Law

This course explores key historical and contemporary issues in indigenous politics. Focusing on the contemporary political and legal mobilization of Indigenous peoples, it will examine their pursuit of self-government, land claims and resource development, treaty negotiations indigenous rights, and reconciliation. A primary focus will be the role of Canada’s courts, its political institutions, and federal and provincial political leaders in affecting the capacity of indigenous communities to realize their goals.
Area of Focus: Canadian Government and Politics

Prerequisite: POLB50Y3 or equivalent
Exclusion: POL308H, ABS353H, ABS354H
Breadth Requirements: Social & Behavioural Sciences

POLC57H3 - Intergovernmental Relations and Public Policy

This course examines intergovernmental relations in various areas of public policy and their effects on policy outcomes. It evaluates how federalism affects the capacity of Canadians to secure desirable social, economic, environmental and trade policies. Lecture-seminar format.
Areas of Focus: Canadian Government and Politics; Public Policy

Prerequisite: [POLB50Y3 or equivalent] and POLC54H3
Exclusion: POL316Y
Breadth Requirements: Social & Behavioural Sciences

POLC58H3 - The Politics of National Identity and Diversity

This course explores the foundational concepts of nation and nationalism in Canadian and comparative politics, and the related issues associated with diversity. The first section looks at the theories related to nationalism and national identity, while the second applies these to better understand such pressing issues as minorities, multiculturalism, conflict and globalization.
Areas of Focus: Canadian Government and Politics; Comparative Politics

Prerequisite: POLB92H3 or POLB50Y3
Breadth Requirements: Social & Behavioural Sciences

POLC59H3 - Sources of Power: The Crown, Parliament and the People

Who are we as a people today? What role have consecutive vice regals played in more than 400 years of shaping our nation and its institutions? This course examines how the vice regal position in general, and how selected representatives in particular, have shaped Canada's political system
Areas of Focus: Canadian Government and Politics

Prerequisite: POLB50Y3 or equivalent
Exclusion: POLC40H3 (if taken in 2014-Winter or 2015-Winter sessions)
Breadth Requirements: Social & Behavioural Sciences

POLC65H3 - Political Strategy

This course focuses on analyzing and influencing individual and collective choices of political actors to understand effective strategies for bringing about policy changes. We will draw on the psychology of persuasion and decision-making, as well as literature on political decision-making and institutions, emphasizing contemporary issues. During election years in North America, special attention will be paid to campaign strategy. There may be a service-learning requirement.
Area of Focus: Public Policy

Prerequisite: At least 4.0 credits in POL courses
Breadth Requirements: Social & Behavioural Sciences

POLC68H3 - The Constitution of Canada and the Charter of Rights and Freedoms

This course will investigate the development of Canadian constitutional law under the Constitution Act of 1982 and the Charter of Rights and Freedoms. Specific topics include criminal rights, freedom of expression, freedom of religion, equality rights, and aboriginal rights.
Areas of Focus: Canadian Government and Politics; Public Policy

Prerequisite: [POLB50Y3 or equivalent] or POLB30H3
Exclusion: POL337Y
Recommended Preparation: POLC32H3
Breadth Requirements: Social & Behavioural Sciences

POLC69H3 - Political Economy: International and Comparative Perspectives

This course provides an introduction to the field of political economy from an international and comparative perspective. The course explores the globalization of the economy, discusses traditional and contemporary theories of political economy, and examines issues such as trade, production, development, and environmental change.

Areas of Focus: Comparative Politics; International Relations

Prerequisite: [1.0 credit from: POLB80H3, POLB81H3, POLB90H3, POLB91H3, POLB92H3]
Exclusion: POL361H1
Breadth Requirements: Social & Behavioural Sciences

POLC70H3 - Political Thought: Foundations of Justice, Citizenship and Power

This course introduces students to central concepts in political theory, such as justice, rights, and the state. Readings will include classical and medieval texts, such as Plato's *Republic* and Aristotle's *Politics*.
Area of Focus: Political Theory

Prerequisite: POLB72H3 or PHLB17H3
Exclusion: POL200Y, (POLB70H3)
Breadth Requirements: History, Philosophy & Cultural Studies

POLC71H3 - Political Thought: Rights, Revolution and Resistance

This course introduces students to central concepts in political theory, such as sovereignty, liberty, and equality. Readings will include modern and contemporary texts, such as Hobbes' *Leviathan* and Locke's *Second Treatise of Government*.
Area of Focus: Political Theory

Prerequisite: POLB72H3 or PHLB17H3
Exclusion: POL200Y, (POLB71H3)
Breadth Requirements: History, Philosophy & Cultural Studies

POLC72H3 - Liberty

The course investigates the concept of political liberty in various traditions of political thought, especially liberalism, republicanism, and Marxism. The course will investigate key studies by such theorists as Berlin, Taylor, Skinner, Pettit, and Cohen, as well as historical texts by Cicero, Machiavelli, Hobbes, Hegel, Constant, Marx, and Mill.
Area of Focus: Political Theory

Prerequisite: POLB72H3 or (POLB70H3) or (POLB71H3)
Breadth Requirements: History, Philosophy & Cultural Studies

POLC73H3 - Modern Political Theory

This course is a study of the major political philosophers of the nineteenth century, including Hegel, Marx, J.S. Mill and Nietzsche.
Area of Focus: Political Theory

Prerequisite: [(POLB70H3) and (POLB71H3)] or POLB72H3
Exclusion: POL320Y
Breadth Requirements: History, Philosophy & Cultural Studies

POLC74H3 - Contemporary Political Thought

This course is a study of the major political philosophers of the twentieth century. The theorists covered will vary from year to year.
Area of Focus: Political Theory

Prerequisite: [(POLB70H3) and (POLB71H3)] or POLB72H3
Exclusion: POL320Y
Breadth Requirements: History, Philosophy & Cultural Studies

POLC78H3 - Political Analysis I

This course examines the principles of research design and methods of analysis employed by researchers in political science. Students will learn to distinguish between adequate and inadequate use of evidence and between warranted and unwarranted conclusions.

Prerequisite: 8.0 credits including 1.0 credit in POL courses
Breadth Requirements: Social & Behavioural Sciences

POLC79H3 - Feminist Political Thought

This course examines the challenges and contributions of feminist political thought to the core concepts of political theory, such as rights, citizenship, democracy, and social movements. It analyzes the history of feminist political thought, and the varieties of contemporary feminist thought, including: liberal, socialist, radical, intersectional, and postcolonial.
Area of Focus: Political Theory

Prerequisite: POLB72H3 or [(POLB70H3) and (POLB71H3)] or PHLB13H3 or WSTA03H3
Exclusion: POL432H
Breadth Requirements: History, Philosophy & Cultural Studies

POLC80H3 - International Relations of Africa

This course introduces students to the International Relations of Africa. This course applies the big questions in IR theory to a highly understudied region. The first half of the course focuses on security and politics, while the latter half pays heed to poverty, economic development, and multilateral institutions.
Area of Focus: International Relations

Prerequisite: POLB80H3 and POLB81H3
Breadth Requirements: Social & Behavioural Sciences

POLC83H3 - Applications of American Foreign Policy

This course examines the foreign policy of the United States by analyzing its context and application to a specific region, regions or contemporary problems in the world.
Areas of Focus: International Relations; Public Policy; Comparative Politics

Prerequisite: Any 4.0 credits
Breadth Requirements: Social & Behavioural Sciences

POLC87H3 - International Cooperation and Institutions

This course explores the possibilities and limits for international cooperation in different areas and an examination of how institutions and the distribution of power shape bargained outcomes.
Area of Focus: International Relations

Prerequisite: POLB80H3 & POLB81H3
Breadth Requirements: Social & Behavioural Sciences

POLC88H3 - The New International Agenda

Traditional International Relations Theory has concentrated on relations between states, either failing to discuss, or missing the complexities of important issues such as terrorism, the role of women, proliferation, globalization of the world economy, and many others. This course serves as an introduction to these issues - and how international relations theory is adapting in order to cover them.
Area of Focus: International Relations

Prerequisite: [POLB80H3 and POLB81H3] or equivalent
Breadth Requirements: Social & Behavioural Sciences

POLC90H3 - Development Studies: Political and Historical Perspectives

This course provides students with a more advanced examination of issues in development studies, including some of the mainstream theoretical approaches to development studies and a critical examination of development practice in historical perspective. Seminar format.
Area of Focus: Comparative Politics

Prerequisite: POLB90H3 and POLB91H3
Breadth Requirements: Social & Behavioural Sciences

POLC91H3 - Latin America: Dictatorship and Democracy

This course explores the origins of Latin America's cycles of brutal dictatorship and democratic rule. It examines critically the assumption that Latin American countries have made the transition to democratic government.
Area of Focus: Comparative Politics

Prerequisite: [POLB90H3 and POLB91H3] or equivalent
Exclusion: POL305Y
Breadth Requirements: Social & Behavioural Sciences

POLC92H3 - The American Political Process

This course analyses the American federal system and the institutions and processes of government in the United States.
Area of Focus: Comparative Politics

Prerequisite: One full credit in Political Science at the B-level
Exclusion: POL203Y
Breadth Requirements: Social & Behavioural Sciences

POLC93H3 - Public Policies in the United States

This course focuses on selected policy issues in the United States.
Areas of Focus: Comparative Politics; Public Policy

Prerequisite: One full credit in Political Science at the B-level
Exclusion: POL203Y
Breadth Requirements: Social & Behavioural Sciences

POLC94H3 - Globalization, Gender and Development

This course explores the gendered impact of economic Globalization and the various forms of resistance and mobilization that women of the global south have engaged in their efforts to cope with that impact. The course pays particular attention to regional contextual differences (Latin America, Africa, Asia and the Middle East) and to the perspectives of global south women, both academic and activist, on major development issues.
Area of Focus: Comparative Politics

Prerequisite: POLB90H3
Breadth Requirements: Social & Behavioural Sciences

POLC96H3 - State Formation and Authoritarianism in the Middle East

This course examines the origins of, and political dynamics within, states in the contemporary Middle East. The first part of the course analyses states and state formation in historical perspective - examining the legacies of the late Ottoman and, in particular, the colonial period, the rise of monarchical states, the emergence of various forms of "ethnic" and/or "quasi" democracies, the onset of "revolutions from above", and the consolidation of populist authoritarian states. The second part of the course examines the resilience of the predominantly authoritarian state system in the wake of socio-economic and political reform processes.
Area of Focus: Comparative Politics

Prerequisite: POLB90H3 and [POLB91H3 or POLB92H3]
Breadth Requirements: Social & Behavioural Sciences

POLC97H3 - Protest Politics in the Middle East

This course examines various forms of protest politics in the contemporary Middle East. The course begins by introducing important theoretical debates concerning collective action in the region - focusing on such concepts as citizenship, the public sphere, civil society, and social movements. The second part of the course examines case studies of social action - examining the roles played by crucial actors such as labour, the rising Islamist middle classes/bourgeoisie, the region's various ethnic and religious minority groups, and women who are entering into the public sphere in unprecedented numbers. The course concludes by examining various forms of collective and non-collective action in the region from Islamist social movements to everyday forms of resistance.
Area of Focus: Comparative Politics

Prerequisite: POLB90H3 and [POLB91H3 or POLB92H3]
Breadth Requirements: Social & Behavioural Sciences

POLC98H3 - International Political Economy of Finance

The course explains why financial markets exist, and their evolution, by looking at the agents, actors and institutions which generate demand for them. We also consider the consequences of increasingly integrated markets, the causes of systemic financial crises, as well as the implications and feasibility of regulation.
Area of Focus: International Relations

Prerequisite: POLB80H3 and POLB81H3
Exclusion: POL411H1
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

POLC99H3 - Latin America: The Politics of the Dispossessed

This course explores the way the poor and oppressed have organized and fought for their rights. Special attention is given to the way in which globalization has affected popular organizing, including its impact on insurgent movements such as the Zapatistas.
Area of Focus: Comparative Politics

Prerequisite: [POLB90H3 and POLB91H3] or equivalent
Exclusion: POL305Y
Breadth Requirements: Social & Behavioural Sciences

POLD01H3 - Research Seminar in Political Science

This course provides an opportunity to design and carry out individual or small-group research on a political topic. After class readings on the topic under study, research methods and design, and research ethics, students enter "the field" in Toronto. The seminar provides a series of opportunities to present and discuss their unfolding research.

Prerequisite: 1.5 credits at the C-level in POL courses
Enrolment Limits: 15

POLD02Y3 - Senior Research Seminar in Political Science

This course provides an opportunity to carry out individual research on a Political Science topic. After class readings on the topic under study, research methods and design, and research ethics, students will propose and carry out their own research project. The seminar provides opportunities to present and discuss their unfolding research, as well as to present the findings of their research.

Prerequisite: A minimum 3.3 CGPA in Political Science courses and permission of the instructor; Restricted to students in the 4th year of the Specialist in Political Science program
Enrolment Limits: 10

POLD09H3 - Advanced Topics in International Security

This course explores the internationalization of ethnic conflict and the international drivers of civil war. It covers diaspora politics, contagion and demonstration effects, regional security complexes, separatism and irredentism, and the use of sanctions and international interventions. The class involves discussions, problem-solving exercises, and teamwork.
Area of Focus: International Relations

Prerequisite: POLC09H3 and [an additional 1.0 credit at the C-level in POL or IDS courses]
Exclusion: POL466H1, POL468H1
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD30H3 - Legal Reasoning

This course will introduce students to the ideas and methods that guide judges and lawyers in their work. How does the abstract world of the law get translated into predictable, concrete decisions? How do judges decide what is the “correct” decision in a given case? The class will begin with an overview of the legal system before delving into the ideas guiding statute drafting and interpretation, judicial review and administrative discretion, the meaning of “evidence” and “proof,” constitutionalism, and appellate review. Time will also be spent exploring the ways that foreign law can impact and be reconciled with Canadian law in a globalizing world.

Area of focus: Political Theory

Prerequisite: POLB30H3 and POLC68H3 and [an additional 1.5 credits at the C-level in POL courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Minor in Public Law.

POLD38H3 - Law and Global Business

This course examines how law both constitutes and regulates global business. Focusing on Canada and the role of Canadian companies within a global economy, the course introduces foundational concepts of business law, considering how the state makes markets by bestowing legal personality on corporations and facilitating private exchange. The course then turns to examine multinational businesses and the laws that regulate these cross-border actors, including international law, extra-territorial national law, and private and hybrid governance tools. Using real-world examples from court decisions and business case studies, students will explore some of the "governance gaps" produced by the globalization of business and engage directly with the tensions that can emerge between legal, ethical, and strategic demands on multinational business.

Area of Focus: International Relations

Prerequisite: POLC32H3 and 1.0 credit at the C-level in POL courses
Recommended Preparation: POLB80H3
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD41H3 - Advanced Topics in Politics

Topics and Area of Focus will vary depending on the instructor.

Prerequisite: 1.5 credits at the C-level in POL courses
Exclusion: (POLC41H3)
Enrolment Limits: 25

POLD42H3 - Advanced Topics in Public Law

Topics and area of focus will vary depending on the instructor, and may include global perspectives on social and economic rights, judicial and constitutional politics in diverse states and human rights law in Canada.

Prerequisite: 1.5 credits from the following [POLC32H3, POLC36H3, POLC39H3, POLC68H3]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD43H3 - Writing about Politics

Some of the most powerful political texts employ literary techniques such as narrative, character, and setting. This class will examine political themes in texts drawn from a range of literary genres (memoire, literary non-fiction, science fiction). Students will learn about the conventions of these genres, and they will also have the opportunity to write an original piece of political writing in one of the genres. This course combines the academic analysis of political writing with the workshop method employed in creative writing courses.

Prerequisite: [1.5 credits at the C-level in POL, CIT, PPG, GGR, ANT, SOC, IDS, HLT courses] or [JOUB39H3 or ENGB63H3]
Recommended Preparation: At least one course in creative writing at the high school or university level.
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

POLD44H3 - Comparative Law and Social Change

This seminar based course examines how legal institutions and legal ideologies influence efforts to produce or prevent social change. The course will analyze court-initiated action as well as social actions “from below” (social movements) with comparative case studies.

Area of Focus: Comparative Politics

Prerequisite: POLB30H3 and [POLC39H3 or POLC38H3] and [0.5 credit in Comparative Politics]
Exclusion: POL492H1
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Minor in Public Law.

POLD45H3 - Constitutionalism

This course studies the theory of constitutionalism through a detailed study of its major idioms such as the rule of law, the separation of powers, sovereignty, rights, and limited government.
Area of Focus: Political Theory

Prerequisite: [[(POLB70H3) and (POLB71H3)] or POLB72H3 or POLB30H3] and [1.5 credits at the C-level in POL courses]
Enrolment Limits: 25
Breadth Requirements: History, Philosophy & Cultural Studies

POLD50H3 - Political Interests, Political Identity, and Public Policy

This course examines the interrelationship between organized interests, social movements and the state in the formulation and implementation of public policy in Canada and selected other countries.
Areas of Focus: Canadian Government and Politics; Public Policy

Prerequisite: [POLB50Y3 or equivalent] and [1.5 credits at the C-level in POL or PPG courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD51H3 - Topics in Canadian and Comparative Politics

This seminar course explores selected issues of Canadian politics from a comparative perspective. The topics in this course vary depending on the instructor.
Areas of Focus: Canadian Government and Politics; Comparative Politics

Prerequisite: [POLB50Y3 or equivalent] and [1.5 credits at the C-level in POL courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD52H3 - Immigration and Canadian Political Development

Immigration has played a central role in Canada's development. This course explores how policies aimed at regulating migration have both reflected and helped construct conceptions of Canadian national identity. We will pay particular attention to the politics of immigration policy-making, focusing on the role of the state and social actors.
Areas of Focus: Canadian Government and Politics; Public Policy

Prerequisite: [[POLB50Y3 or equivalent] and [1.5 credits at the C-level in POL or PPG courses]] or [15.0 credits including SOCB60H3]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD53H3 - Political Disagreement in Canada

Why do Canadians disagree in their opinions about abortion, same-sex marriage, crime and punishment, welfare, taxes, immigration, the environment, religion, and many other subjects? This course examines the major social scientific theories of political disagreement and applies these theories to an analysis of political disagreement in Canada.
Area of Focus: Canadian Government and Politics

Prerequisite: [POLB50Y3 or equivalent] and [1.5 credits at the C-level in POL courses]
Recommended Preparation: STAB23H3 or equivalent
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD55H3 - The Politics of Equality and Inequality in Canada

This seminar provides an in-depth examination of the politics of inequality in Canada, and the role of the Canadian political-institutional framework in contributing to political, social and economic (in)equality. The focus will be on diagnosing how Canada's political institutions variously impede and promote equitable treatment of different groups of Canadians (such as First Nations, women, racial and minority groups) and the feasibility of possible institutional and policy reforms to promote goals of social and economic equity.
Area of Focus: Canadian Government and Politics

Prerequisite: [POLB50Y3 or equivalent] and [1.5 credits at the C-level in POL courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD56H3 - Politics and Computational Social Science

This course applies tools from computational social science to the collection and analysis of political data, with a particular focus on the computational analysis of text. Students are expected to propose, develop, carry out, and present a research project in the field of computational social science.

Prerequisite: STAB23H3 or equivalent and 1.5 credit at the C-level
Breadth Requirements: Quantitative Reasoning

POLD58H3 - The New Nationalism in Liberal Democracies

This course examines the recent rise of ethnic nationalism in western liberal democracies, with a particular focus on the US, Canada, UK and France. It discusses the different perspectives on what is behind the rise of nationalism and populism, including economic inequality, antipathy with government, immigration, the role of political culture and social media.

Areas of Focus: Canadian Government and Politics

Prerequisite: POLC58H3 and 1.0 credit at the C-level in POL or PPG courses
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD59H3 - Politics of Disability

An in-depth analysis of the place and rights of disabled persons in contemporary society. Course topics include historic, contemporary, and religious perspectives on persons with disabilities; the political organization of persons with disabilities; media presentation of persons with disabilities; and the role of legislatures and courts in the provision of rights of labour force equality and social service accessibility for persons with disabilities.
Area of Focus: Canadian Government and Politics

Prerequisite: 8.0 credits, of which at least 1.5 credits must be at the C- or D-level
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD67H3 - The Limits of Rationality

This course critically examines the relationship between politics, rationality, and public policy-making. The first half of the course surveys dominant rational actor models, critiques of these approaches, and alternative perspectives. The second half of the course explores pathological policy outcomes, arrived at through otherwise rational procedures.
Areas of Focus: Comparative Politics; Political Theory; Public Policy

Prerequisite: [(POLB70H3) and (POLB71H3) or POLB72H3] or [POLB90H3 and POLB91H3] or PPGC66H3 and [1.0 additional credit at the C-level in POL or PPG courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD70H3 - Topics in Political Theory

This seminar explores the ways in which political theory can deepen our understanding of contemporary political issues. Topics may include the following: cities and citizenship; multiculturalism and religious pluralism; the legacies of colonialism; global justice; democratic theory; the nature of power.
Area of Focus: Political Theory

Prerequisite: [(POLB70H3) or (POLB71H3) or POLB72H3] and [1.5 credits at the C-level in POL courses]
Enrolment Limits: 25

POLD78H3 - Advanced Political Analysis

This seminar course is intended for students interested in deepening their understanding of methodological issues that arise in the study of politics or advanced research techniques.

Prerequisite: POLC78H3 and [1.0 credit at the C-level in POL courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD87H3 - Rational Choice and International Cooperation

This course is an introduction to rational choice theories with applications to the international realm. A main goal is to introduce analytical constructs frequently used in the political science and political economy literature to understand strategic interaction among states.
Area of Focus: International Relations

Prerequisite: POLB80H3 and POLB81H3 and [1.5 credits at the C-level in POL courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD89H3 - Global Environmental Politics

Examines the challenges faced by humanity in dealing with global environmental problems and the politics of addressing them. Focuses on both the underlying factors that shape the politics of global environmental problems - such as scientific uncertainty, North-South conflict, and globalization - and explores attempts at the governance of specific environmental issues.
Area of Focus: International Relations

Prerequisite: [[POLB80H3 and POLB81H3] or ESTB01H3]] and [2.0 credits at the C-level in any courses]
Exclusion: POL413H1
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD90H3 - Public Policy and Human Development in the Global South

While domestic and international political factors have discouraged pro human development public policies in much of the global south, there have been some important success stories. This course examines the economic and social policies most successful in contributing to human development and explores the reasons behind these rare cases of relatively successful human development.
Areas of Focus: Comparative Politics; Public Policy

Prerequisite: [1.0 credit from: IDSB01H3, IDSB04H3, POLB90H3, POLB91H3] and [2.0 credits at the C-level in any courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD91H3 - Protests and Social Movements in Comparative Perspective

This course examines contentious politics from a comparative perspective, beginning with the foundational theories of Charles Tilly, Sidney Tarrow, and Doug McAdam. It explores questions such as why people protest, how they organize, and the outcomes of contention. The second half of the course challenges students to examine popular contention across a range of states in Asia, the Middle East, Europe, and Latin America. It asks students to interrogate the applicability of the dynamics of contention framework to illiberal states in a comparative context.
Area of Focus: Comparative Politics

Prerequisite: 1.5 credits at the C-level in POL courses
Exclusion: POL451H1
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD92H3 - Survival and Demise of Dictatorships

This course will provide an introduction to theories of why some dictatorships survive while others do not. We will explore theories rooted in regime type, resources, state capacity, parties, popular protest, and leadership. We will then examine the utility of these approaches through in-depth examinations of regime crises in Ethiopia, Iran, China, the USSR, and South Africa.
Area of Focus: Comparative Politics

Prerequisite: POLB92H3 and [POLB90H3 or POLB91H3] and [an additional 2.0 credits at the C-level in any courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD94H3 - Selected Topics on Developing Areas

Topics vary according to instructor.
Area of Focus: Comparative Politics

Prerequisite: POLB90H3 and [POLB91H3 or 0.5 credit at the B-level in IDS courses] and [2.0 credits at the C-level in any courses]
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

POLD95H3 - Supervised Research

A research project under the supervision of a member of faculty that will result in the completion of a substantial report or paper acceptable as an undergraduate senior thesis. Students wishing to undertake a supervised research project in the Winter Session must register in POLD95H3 during the Fall Session. It is the student's responsibility to find a faculty member who is willing to supervise the project, and the student must obtain consent from the supervising instructor before registering for this course. During the Fall Session the student must prepare a short research proposal, and both the supervising faculty member and the Supervisor of Studies must approve the research proposal prior to the first day of classes for the Winter Session.

Prerequisite: Permission of the instructor

POLD98H3 - Supervised Reading

Advanced reading in special topics. This course is meant only for those students who, having completed the available basic courses in a particular field of Political Science, wish to pursue further intensive study on a relevant topic of special interest. Students are advised that they must obtain consent from the supervising instructor before registering for this course.

Prerequisite: Permission of the instructor.
Exclusion: POL495Y

Psychology

Faculty List

- B.C. Armstrong, B.Sc., M.A. (Toronto), M.S., Ph.D., (Carnegie Mellon), Assistant Professor
- M. Arruda-Carvalho, B.Sc., M.Sc. (Rio de Janeiro), Ph.D. (Toronto), Assistant Professor
- M. Bagby, B.A. (Tennessee), M.A. (Radford), Ph.D., C. Psych (York), Professor
- M.W. Best, B.Sc., M.Sc., Ph.D. (Queens), Assistant Professor
- K. Bramesfeld, B.A. (Wyoming), M.Sc., Ph.D. (Penn State), Assistant Professor, Teaching Stream
- G.B. Biederman, B.Sc. (CUNY), Ph.D. (NYU), Professor Emeritus
- D.A. Bors, B.A. (Florida), M.A. (Regina), Ph.D. (Toronto), Associate Professor, Teaching Stream, Emeritus
- J.S. Cant, B.A., M.Sc., Ph.D. (Western), Associate Professor
- L. Cirelli, B.A. (Laurentian), Ph.D. (McMaster), Assistant Professor
- A. Cooper, B.A. (McMaster), M.A., Ph.D. (Ohio State), Assistant Professor, Teaching Stream
- G.S. Cree, B.A., M.A., Ph.D. (Western), Associate Professor
- G.C. Cupchik, B.A. (Michigan), M.A., Ph.D. (Wisconsin), Professor
- D.K. Danielson, B.A. (Duke), M.A. (Alberta), Ph.D. (UBC), Assistant Professor, Teaching Stream
- J. Dere, B.A. (McGill), M.Sc. (McGill), Ph.D. (Concordia), Associate Professor, Teaching Stream
- K.K. Dion, B.A. (Wellesley), Ph.D. (Minnesota), Professor
- S. Erb, B.Sc. (Wilfrid Laurier), M.A., Ph.D. (Concordia), Associate Professor
- J.E. Foley, B.A., Ph.D. (Sydney), Professor Emerita
- B.Q. Ford, B.A., M.A. (Boston), Ph.D. (Berkeley), Assistant Professor
- B. Forrin, B.A. (Toronto), M.A., Ph.D. (Michigan), Professor Emeritus
- M.A. Fournier, B.A., Ph.D. (McGill), Associate Professor
- V. Goghari, B.A. (British Columbia), M.A., Ph.D. (Minnesota), Associate Professor
- D. W. Haley, B.A. (Annapolis), M.A. (San Francisco), Ph.D. (Albuquerque), Associate Professor
- C. Hutcherson, B.A. (Harvard), Ph.D. (Stanford), Assistant Professor
- Y. Inbar, B.A. (Berkeley), Ph.D. (Cornell), Associate Professor
- M. Inzlicht, B.Sc. (McGill), M.Sc., Ph.D. (Brown), Professor
- R. Ito, B.A. (Oxford), Ph.D. (Cambridge), Associate Professor
- S. Joordens, B.A. (New Brunswick), M.A., Ph.D. (Waterloo), Professor
- J.M. Kennedy, B.Sc., M.Sc. (Belfast), Ph.D. (Cornell), University Professor Emeritus
- A. Kukla, A.B., M.A., Ph.D. (UCLA), Professor Emeritus
- J.C. LeBoutillier, B.Sc., M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- A.C.H. Lee B.A. (Oxford), Ph.D. (Cambridge), Associate Professor
- A. Nestor, B.A. (Bucharest), M.Sc. (New Bulgarian), Ph.D. (Brown), Associate Professor
- M. Niemeier, M.A. (Hamburg), Ph.D. (Tubingen), Associate Professor
- T.L. Petit, B.Sc., M.A. (Louisiana), Ph.D. (Florida), Professor Emeritus
- A.C. Ruocco, B.Sc. (York), M.Sc., Ph.D., C.Psych. (Drexel), Associate Professor
- M.A. Schmuckler, B.A. (SUNY-Binghamton), Ph.D. (Cornell), Professor
- Z. Segal, B.A. (McGill), M.A. (Queens), Ph.D. (Queens), Professor
- M.C. Smith, B.A. (Toronto), Ph.D. (MIT), Professor Emerita
- R. Smyth, B.A. (Carleton), M.Sc. (Alberta), Ph.D. (Alberta), Associate Professor
- M. Souza, B.A., M.A. (UC Davis), Ph.D. (Berkeley), Associate Professor, Teaching Stream

- S. Tran, B.A. (Oklahoma), M.S. (Texas A&M), Ph.D. (Minnesota), Associate Professor, Teaching Stream
- A.A. Uliaszek, B.A. (Penn State), M.A., Ph.D. (Northwestern), Assistant Professor
- K.K. Zakzanis, B.A., M.A., Ph.D., C.Psych. (York), Professor

Chair: S. Erb
Associate Chair, Undergraduate and Program Supervisor: M. Fournier

Program Manager: H. Domloge
Undergraduate Advisor: A. Lawson Email: psychology-undergraduate@utsc.utoronto.ca
Co-op Contact: askcoop@utoronto.ca

Psychology examines how and why people think and act the way they do, with the ultimate goal of understanding and improving the human condition. Psychological research employs the scientific method and a diverse set of tools in an effort to uncover the complex dynamics that influence individuals. Our programs of study are valuable to students planning to join the public or private sector workforce (e.g., human resources, marketing, social/community services), those interested in pursuing graduate studies focused on psychological research (e.g., Ph.D. in Clinical or Experimental Psychology), those seeking a professional degree program related to psychological science (e.g., Master's Degree in Counselling Psychology, Public Health, or Social Work), as well as those interested in other professional degrees (e.g., law, business).

Psychology has many sub-fields, several of which are represented at UTSC in terms of research areas and course offerings: Social Psychology (how socio-cultural influences affect us; PSY 10-series courses), Developmental Psychology (how individuals change over time; PSY 20-series courses), Clinical Psychology (diagnosis and treatment of psychological disorders; PSY 30-series courses), Cognitive Neuroscience (the biology of the mind; PSY 50-series courses), and Behavioural Neuroscience (physiological and genetic influences on behaviour; PSY 60-series courses). These courses are designed to complement our other core skills courses (e.g., research methods) found outside of this numerical category system.

Our programs in Psychology provide an opportunity to study typical thoughts, feelings, and behaviours, while our programs in Mental Health Studies are better suited for students interested in focusing on psychological well-being and disorders. Programs in Psychology and Mental Health cannot be combined. Students with a strong interest in the biological basis of thoughts, feelings, and behaviours may want to consider a program in Neuroscience.

Our Specialist programs are research-intensive programs. The Co-op option offers an experiential learning supplement to the Specialist programs. Our Major programs require less research-intensive coursework while focusing more on how to be a skilled consumer of psychological research. Our Minor program in Psychology allows students to explore our field with considerably less intensity than the Specialist and Major programs.

Students in the Specialist/Specialist (Co-op) Program in Mental Health Studies also have the unique opportunity to pursue one of two Combined Degree Programs, Honours Bachelor of Science/Master of Social Work. These Combined Degree Programs reserve early entry for students in the University of Toronto's highly competitive Master of Social Work program. Please see below for more information.

Planning your Program in Psychology
Creating an academic plan - a road map of the courses you wish to take on the timeline you wish to take them - is crucial for the efficient completion of your program. We strongly encourage our students to either develop an academic plan independently and then to consult the Department of Psychology Advisors for feedback, or to work with the Department of Psychology Advisors to develop an academic plan. These advisors can also provide valuable guidance to help you structure your program to improve your competitiveness for further studies after your undergraduate degree. For more information, please see the Department of Psychology website.

All students interested in any of our programs must first take PSYA01H3 and PSYA02H3 (or their equivalent). All students should then prioritize foundational research methods (PSYB70H3) and statistics PSYB07H3 in Year 2 to gain access to more advanced courses at the C-level and beyond. Specialists should also take PSYC02H3 and PSYC70H3 in Year 2, as these courses are profoundly useful for engaging in research opportunities. Students in the Psychology Minor are strongly encouraged to choose PSY B-levels courses that open up multiple options at the PSY C-level, as some courses, for example, PSYB10H3, offer more flexibility than others.

Students may wish to take PSY courses at UTSG or UTM to satisfy part of their program requirements. UTSG and UTM courses at the 100-, 200-, 300-, and 400-level of study correspond to our courses at the A-, B-, C- and D-level. However, there are important exceptions to this (e.g., a 300-level course at UTSG, which is comparable to a C-level course at UTSC, may not be used to satisfy a D-level program requirement, even if it is listed as an exclusion to a D-level course). As such, we encourage you to consult the list of established equivalences as appropriate listed on the Department of Psychology - Course Equivalences website, and to direct any questions about taking program requirements at the other UofT campuses to the Course Coordinator in the Department of Psychology.

The Department offers rich opportunities to get actively involved in the research process and in some cases to receive course credit, for example: PSYC90H3, PSYC93H3, and PSYD98Y3. Supervised study and thesis courses are highly competitive and are essential for students interested in pursuing research-based graduate studies. Interested students should review the prerequisites for these courses and plan their course of study accordingly. The Specialist programs are particularly well suited for pursuing a thesis, for example, PSYD98H3, given their program requirements. Interested Majors may discuss this option with the Department of Psychology Advisors provided that they meet the other prerequisites. Students are encouraged to visit the Department Department of Psychology website and/or Department of Psychology - Faculty website to search for opportunities.

While your coursework is an integral piece of your education, it can and should be supplemented by relevant co-curricular and extra-curricular experiences, more information is available on the Career & Co-Curricular Learning Network website. There are valuable professional development resources in our department and on our campus (e.g., Academic Advising and Career Centre), as well as opportunities to volunteer or work on- or off-campus to broaden your skillset (e.g., clinical work exposure, leadership skills). For more information on some of these opportunities, please see the Department of Psychology website.

Combined Degree Programs, Honours Bachelor of Science/ Master of Social Work
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Social Work (MSW) offered by the Factor-Inwentash Faculty of Social Work allows exceptional students who are registered in the UTSC Specialist/Specialist Co-op programs in Mental Health Studies to apply during Year 3 of their studies, and be considered, for admission to the FIFSW Master's program in Social Work. These CDPs offer a rich intellectual pathway for exceptional undergraduate students by providing access to social work research before the completion of the

undergraduate degree, and give students an opportunity to become equipped for evidence-informed social work practice, through a research course in Year 4 with a FIFSW co-supervisor.

The Combined Degree Programs options are:

- Mental Health Studies (Specialist), Honours Bachelor of Science/ Master of Social Work
- Mental Health Studies Health Studies (Specialist Co-op), Honours Bachelor of Science/ Master of Social Work

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Courses in Psycholinguistics
The Department of Linguistics offers a number of courses in psycholinguistics that are appropriate for a program in psychological science. Accordingly, up to 1.0 credit from the list below may be used as Psychology courses to fulfill Psychology program requirements.
(PLIB25H3)
PLIC24H3
PLIC54H3
PLIC55H3
PLIC75H3
PLID34H3
PLID44H3
PLID50H3
(PLID55H3)
PLID56H3

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Psychology Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE / MASTER OF SOCIAL WORK

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) with the Master of Social Work (MSW) offered by the Factor-Inwentash Faculty of Social Work allow exceptional students who are registered in the UTSC Specialist or Specialist Co-op programs in Mental Health Studies to apply during Year 3 of their studies, and be considered, for admission to the FIFSW Master's program in Social Work. These CDPs offer a rich intellectual pathway for exceptional undergraduate students by providing access to social work research before the completion of the undergraduate degree, and give students an opportunity to become equipped for evidence-informed social work practice, through a research course in Year 4 with a FIFSW co-supervisor.

Contact Information:
Department of Psychology
Email: psychology-undergraduate@utsc.utoronto.ca

Combined Degree Programs options are:

- Mental Health Studies (Specialist), Honours Bachelor of Science/ Master of Social Work
- Mental Health Studies (Specialist Co-op), Honours Bachelor of Science/ Master of Social Work

Application Process:

- Applicants must apply to the HBSc program, the MSW program, and the CDP.
- Qualified students in Year 3 of their HBSc program can apply to the MSW program; those accepted will receive a conditional offer to start the MSW program upon completion of their HBSc program and degree requirements.

Minimum Admission Requirements:

- Applicants must meet the admission requirements of the HBSc program, the School of Graduate Studies, and the MSW program.
- Applicants to the HBSc program must:
    - be enrolled full-time and in good standing;
    - have a B+ average (CGPA of 3.3) or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer).
- Applicants to the MSW program must:
    - maintain a B+ average (CGPA of 3.3) or higher in Year 3 and Year 4 of their HBSc program;
    - complete the requirements of their HBSc program;
    - be conferred with the HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBSc degree requirements:
    - students must complete all HBSc program requirements and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MSW program and the CDP and may be offered conditional admission;
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete 1.5 credits as follows:
        - PSYD98Y3 Thesis in Psychology, under the supervision of a UTSC Psychology faculty member in consultation with a FIFSW faculty member (1.0 credit);
        - PSYD37H3 The Social Context of Mental Health and Illness, which will be taught by a FIFSW faculty member (0.5 credit).
    - by the end of Year 4, fulfill the HBSc program requirements and HBSc degree requirements.
- Year 5 to 6: MSW program and degree requirements:
    - MSW Year 1:
        - conditions of admission are removed;
        - students must complete 4.0 credits (see the School of Graduate Studies Calendar: https://sgs.calendar.utoronto.ca/graduate-programs-at-a-glance)
        - students must complete the Year 1 practicum (SWK 4701H)
        - by the end of Year 1 of the MSW program, students must select one of the following fields of specialization: Children and Their Families, Gerontology,

Health and Mental Health; Social Justice and Diversity, Social Service Administration

- MSW Year 2:
  - students must complete 1.0 credits in elective courses;
  - students must complete the Year 2 practicum (SWK 4702Y);
  - students must complete additional courses in their chosen field of specialization (see the School of Graduate Studies Calendar: https://sgs.calendar.utoronto.ca/graduate-programs-at-a-glance)
- MSW students in the Health and Mental Health field who completed the Specialist (Co-operative) program in Mental Health Studies (BSc) are exempt from SWK4604 (Social Work Practice in Mental Health Services) and will replace it with a graduate elective.

DOUBLE DEGREE: HONOURS BA, SPECIALIST PROGRAM IN ENGLISH / HONOURS BSc, SPECIALIST PROGRAM IN PSYCHOLOGY

This Double Degree program creates an accelerated pathway for students who would otherwise have to complete two separate Specialist programs and two separate degrees. It will provide students with a thorough, interdisciplinary education in both literary studies and Psychology. The Double Degree program takes advantage of existing synergies to allow students to complete both undergradudate programs and degrees within five years, without compromising on the core requirements of either program.

Enrolment Requirements

Enrolment in the Double Degree is limited. Students may apply after completing a minimum of 4.0 credits including ENGA01H3, ENGA02H3, PSYA01H3 and PSYA02H3. A final grade of at least 75% is required in each of PSYA01H3 and PSYA02H3. Students should apply to the program before they have completed 7.5 credits; however, students who have completed between 7.5 and 10.0 credits may apply to the program on a case-by-case basis by petitioning the program supervisor. Students who have completed more than 10.0 credits may not apply to the program. Application for admission will be made to the Office of the Registrar through ACORN in March/April and June/July.

Program Requirements
This program requires the completion of 25.0 credits, including at least 7.0 credits at the C-level and at least 3.5 credits at the D-level.

Psychology Courses **(10.5 credits)**

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits):
PSYB70H3 Methods in Psychological Science
PSYC70H3 Advanced Research Methods Laboratory
and 0.5 credit from among the following:
- PSYC06H3 Psychophysiology Laboratory
- [PSYC71H3 or (PSYC11H3) Social Psychology Laboratory]
- [PSYC72H3 or (PSYC26H3) Developmental Psychology Laboratory]
- [PSYC74H3 or (PSYC05H3) Human Movement Laboratory]

- [PSYC75H3 or (PSYC58H3) Cognitive Psychology Laboratory]
- [PSYC76H3 or (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit):
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (4.5 credits):
Students are required to take 2.5 credits at the B-level or C-level from one of the two content groups listed below, and 2.0 credits from the other group:
(a) Social and Developmental (PSY courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (PSY courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit):
Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (PSY courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (PSY courses listed in the 50- and 60-series)

8. Additional 0.5 credit in Psychology at the C-level (0.5 credit)

***English Courses* (10.0 credits)**
Of the 10.0 credits, at least 3.0 credits must be at the C-level and 1.5 credits at the D-level.

1. All of the following (2.5 credits):
ENGA01H3 What is Literature?
ENGA02H3 Critical Writing About Literature
ENGB27H3 Charting Literary History I
ENGB28H3 Charting Literary History II
ENGC15H3 Introduction to Literary Theory and Criticism

2. 1.5 additional credits from courses whose content is pre-1900 (1.5 credits):
*See the English Course List for pre-1900 courses

3. 0.5 credit in Canadian Literature (0.5 credits):
*See the English Course List for courses in Canadian Literature

4. 5.5 additional credits in English

Notes:
1.Students may count no more than one of the following courses towards the Specialist requirements:
- ENGB35H3 Children's Literature
- (ENGB36H3) Detective Fiction
- (ENGB41H3) Science Fiction
2. The following courses do not count towards any English programs: ENG100H, ENG185Y.

***Additional Psychology/English Courses* (2.0 credits)**
Students must complete a further 2.0 credits. Courses selected to complete this component can be in either English or Psychology or a combination of the two.

1. 1.0 credit at the C- or D-level in PSY and/or ENG courses

2. Capstone Requirement (1.0 credit)
Students must choose one of the options listed below:
ENGD26Y3 Independent Studies in Creative Writing: Poetry
ENGD27Y3 Independent Studies in Creative Writing: Prose
ENGD28Y3 Independent Studies in Creative Writing: Special Topics
ENGD98Y3 Senior Essay and Capstone Seminar
PSYD98Y3 Thesis in Psychology

SPECIALIST PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Enrolment Requirements

Enrolment in the Program is limited. Students must complete a minimum of 4.0 credits, including 1.0 credit in Psychology. Admission will require either: (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Students are cautioned that effective Fall 2022, the program will also require the minimum of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), as well as Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent). Please note that these requirements will not be waived.

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

Program Requirements
The program requires completion of 12.5 credits as follows, including at least 4.0 credits at the C- or D-level, of which at least 1.0 must be at the D-level:

1. Introductory Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credit)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC37H3 Psychological Assessment
PSYC70H3 Advanced Research Methods Laboratory

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology

[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

7. Psychosocial and Psychobiological Breadth (3.0 credits)
Students are required to take 2.0 credits from one group and 1.0 credit from the other group:

Psycho-Social Grouping
[PSYB38H3 or (PSYB45H3) Introduction to Behaviour Modification]
PSYC18H3 The Psychology of Emotion
PSYC35H3 Advanced Personality Psychology
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC31H3 Clinical Neuropsychology
PSYC33H3 Neuropsychological Rehabilitation
PSYC62H3 Drugs and the Brain

8. Seminars in Psychology at the D-level (1.0 credit):
0.5 credit must come from the PSY D30-series:
PSYD30H3 Current topics in Personality Psychology
PSYD31H3 Cultural-Clinical Psychology
PSYD32H3 Personality Disorders
PSYD33H3 Current Topics in Clinical Psychology
PSYD35H3 Clinical Psychopharmacology
PSYD39H3 Cognitive Behavioural Therapy

9. Additional credits in Psychology (1.0 credits)

10. 2.0 credits from the following courses:
HLTB40H3 Health Policy and Health Systems
HLTB41H3 Introduction to the Social Determinants of Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB50H3 Introduction to Health Humanities
(HLTC05H3) Society, Health and Illness
HLTC22H3 Health, Aging, and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs
HLTC49H3 Indigenous Health
IDSB04H3 Introduction to International/Global Health
IDSC11H3 Issues in Global and International Health
LINB20H3 Sociolinguistics

PHLA11H3 Introduction to Ethics
PHLB07H3 Ethics
PHLB09H3 Biomedical Ethics
PHLB81H3 Theories of Mind
PHLC07H3 Death and Dying
PHLC10H3 Topics in Bioethics
SOCB22H3 Sociology of Gender
SOCB49H3 Sociology of Family
SOCB50H3 Deviance and Normality I
SOCC49H3 Indigenous Health

SPECIALIST (CO-OPERATIVE) PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Mental Health Studies is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Mental Health upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements

Enrolment in the Program is limited. Students must complete a minimum of 4.0 credits, including 1.0 credit in Psychology plus a cumulative GPA of at least 2.75. Admission will require either: (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Students are cautioned that effective Fall 2022, the program will also require the minimum of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), as well as Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent). Please note that these requirements will not be waived.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above. Students who have completed 10.0 credits or more are not eligible to apply to the program.
Students currently enrolled in the Specialist Co-op Program in Mental Health Studies who have completed 10.0 credits or more are not eligible to transfer to the Specialist Co-op Program in Psychology or vice-versa.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office Arts and Science Co-op Office. Submission

deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
The program requires 12.5 credits as follows, including at least 4.0 credits at the C-level, of which at least 1.0 credit must be at the D-level:

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (2.0 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC37H3 Psychological Assessment
PSYC70H3 Advanced Research Methods Laboratory
PSYC73H3 Clinical Neuropsychology Laboratory

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

7. Psychosocial and Psychobiological Breadth (3.0 credits)
Students are required to take 2.0 credits from one group and 1.0 credit from the other group:

Psycho-Social Grouping
[PSYB38H3 *or* (PSYB45H3) Introduction to Behaviour Modification]
PSYC18H3 The Psychology of Emotion
PSYC35H3 Advanced Personality Psychology
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC33H3 Neuropsychological Rehabilitation
PSYC62H3 Drugs and the Brain

8. Seminars in Psychology at the D-level (1.0 credit):
0.5 credit must come from the PSY D30-series:
PSYD30H3 Current topics in Personality Psychology
PSYD31H3 Cultural-Clinical Psychology
PSYD32H3 Personality Disorders

PSYD33H3 Current Topics in Clinical Psychology
PSYD35H3 Clinical Psychopharmacology
PSYD39H3 Cognitive Behavioural Therapy

9. An additional credit in Psychology (0.5 credit)

10. 2.0 credits from the following courses:
HLTB40H3 Health Policy and Health Systems
HLTB41H3 Introduction to the Social Determinants of Mental Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB50H3 Introduction to Health Humanities
(HLTC05H3) Society, Health and Illness
HLTC22H3 Health, Aging, and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs
HLTC49H3 Indigenous Health
IDSB04H3 Introduction to International/Global Health
IDSC11H3 Issues in Global and International Health
LINB20H3 Sociolinguistics
PHLA11H3 Introduction to Ethics
PHLB07H3 Ethics
PHLB09H3 Biomedical Ethics
PHLB81H3 Theories of Mind
PHLC07H3 Death and Dying
PHLC10H3 Topics in Bioethics
SOCB22H3 Sociology of Gender
SOCB49H3 Sociology of Family
SOCB50H3 Deviance and Normality I
SOCC49H3 Indigenous Health

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist Co-op Program in Mental Health Studies and have completed at least 10.0 credits, including [PSYB70H3 or (PSYB01H3)], PSYB07H3, PSYB32H3, [PSYB55H3 or (PSYB65H3)], PSYC02H3, [PSYC08H3 or PSYC09H3], and [PSYC73H3 or (PSYC32H3)].
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete

this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

SPECIALIST PROGRAM IN PSYCHOLOGY (SCIENCE)

Enrolment Requirements
Enrolment in the Program is limited. Students must complete a minimum of 4.0 credits, including 1.0 credit in psychology. Admission will require either: (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Students are cautioned that effective Fall 2022, the program will also require the minimum of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), as well as Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent). Please note that these requirements will not be waived.

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

Program Requirements

The Program requires completion of 12.5 credits, including at least 4.0 credits at the C- or D-level, of which at least 1.0 credit must be at the D-level:

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC70H3 Advanced Research Methods Laboratory
and
0.5 credit from among the following:
PSYC06H3 Psychophysiology Laboratory
[PSYC71H3 *or* (PSYC11H3) Social Psychology Laboratory]
[PSYC72H3 *or* (PSYC26H3) Developmental Psychology Laboratory]
[PSYC74H3 *or* (PSYC05H3) Human Movement Laboratory]
[PSYC75H3 *or* (PSYC58H3) Cognitive Psychology Laboratory]
[PSYC76H3 *or* (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (5.0 credits)
Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit)
Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

8. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] *or* thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

SPECIALIST (CO-OPERATIVE) PROGRAM IN PSYCHOLOGY (SCIENCE)

Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-op) Program in Psychology is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Psychology upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
Enrolment in the Program is limited. Students must complete a minimum of 4.0 credits, including 1.0 credit in Psychology plus a cumulative GPA of at least 2.75. Admission will require either: (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Students are cautioned that effective Fall 2022, the program will also require the minimum of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), as well as Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent). Please note that these requirements will not be waived.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above. Students who have completed 10.0 credits or more are not eligible to apply to the program.
Students currently enrolled in the Specialist Co-op Program in Psychology who have completed 10.0 credits or more are not eligible to transfer to the Specialist Co-op Program in Mental Health Studies or vice-versa.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office Arts and Science Co-op Office. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements

The program requires students to complete a total of 12.5 credits, including at least 4.0 credits at the C- or D-level, of which at 1.0 credit must be at the D-level:

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC70H3 Advanced Research Methods Laboratory
and
0.5 credit from among the following:
PSYC06H3 Psychophysiology Laboratory
[PSYC71H3 *or* (PSYC11H3) Social Psychology Laboratory]
[PSYC72H3 *or* (PSYC26H3) Developmental Psychology Laboratory]
[PSYC74H3 *or* (PSYC05H3) Human Movement Laboratory]
[PSYC75H3 *or* (PSYC58H3) Cognitive Psychology Laboratory]
[PSYC76H3 *or* (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (5.0 credits)
Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit)
Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

8. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] *or* thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist Co-op Program in Psychology and have completed at least 10.0 credits, including [PSYB70H3 or (PSYB01H3)], PSYB07H3, PSYC02H3 and [PSYC08H3 or PSYC09H3].
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Enrolment Requirements

Enrolment in the Program is limited. Students must complete a minimum of 4.0 credits, including 1.0 credit in Psychology. Admission will require either: (1) a final grade of 67% or higher in both of PSYA01H3 and PSYA02H3, or (2) a final grade of 60% or higher in both of PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in two B-level psychology courses.

Students are cautioned that effective Fall 2022, the program will also require the minimum of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), as well as Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent). Please note that these requirements will not be waived.

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

Program Requirements

The program requires 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.0 credit):
[PSYB70H3 Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory *or* (PSYB04H3) Foundations in Psychological Research]
PSYC37H3 Psychological Assessment

3. Statistical Methods (0.5 credit):
PSYB07H3 Data Analysis in Psychology
STAB22H3 Statistics I
STAB23H3 Introduction to Statistics for the Social Sciences

4. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

5. Psychosocial and Psychobiological Breadth (1.5 credits):
Students are required to take 1.0 credit from one group and 0.5 credit from the other group:

Psycho-Social Grouping:
[PSYB38H3 *or* (PSYB45H3) Introduction to Behaviour Modification]
PSYC18H3 The Psychology of Emotion
PSYC35H3 Advanced Personality Psychology
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping:
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC31H3 Clinical Neuropsychology
PSYC33H3 Neuropsychological Rehabilitation
PSYC62H3 Drugs and the Brain

6. Seminar in Psychology at the D-level (0.5 credits)

7. Additional credits in Psychology (1.5 credits)
Supervised study [PSYC90H3 or PSYC93H3] or thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

MAJOR PROGRAM IN PSYCHOLOGY (SCIENCE)

Enrolment Requirements

Enrolment in the Program is limited. Students must complete a minimum of 4.0 credits, including 1.0 credit in psychology. Admission will require either: (1) a final grade of 67% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 60% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in two B-level psychology courses.

Students are cautioned that effective Fall 2022, the program will also require the minimum of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), as well as Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent). Please note that these requirements will not be waived.

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

Program Requirements

The Program requires completion of 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (0.5 credit):
[PSYB70H3 Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory or (PSYB04H3) Foundations in Psychological Research]

3. Statistical Methods (0.5 credit):
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I or STAB23H3 Introduction to Statistics for the Social Sciences]

4. Breadth in Psychology at the B-level and C-level (2.5 credits)
Students are required to take 1.5 credits from one of the groups and 1.0 credit from the other group:
a. Social and Developmental (courses listed in the 10- and 20-series)
b. Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

5. Seminar in Psychology at the D-level (0.5 credit)
Certain D-level NRO courses may be used to fulfill this requirement with departmental approval.

6. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] or thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

MINOR PROGRAM IN PSYCHOLOGY (SCIENCE)

Program Requirements
The Program requires completion of 4.0 credits, of which 1.0 credit must be at the C-level:

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (0.5 credit):
[PSYB70H3 Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory or (PSYB04H3) Foundations in Psychological Research]

3. Statistical Methods (0.5 credit):
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I or STAB23H3 Introduction to Statistics for the Social Sciences]

4. Breadth in Psychology at the B-level: One course from each grouping (1.0 credit):
a. Social, Developmental, Personality and Clinical (courses listed in the 10-, 20- or 30-series);
b. Perception, Cognition and Physiology (courses listed in the 50- or 60-series);

5. Breadth in Psychology at the C-level (1.0 credit).

Note: Typically, Psychology Minors are not permitted to take more than 1.0 credit of PSY C-level courses, and are not permitted to take any PSY D-level courses.

Psychology Courses

PSYA01H3 - Introduction to Biological and Cognitive Psychology

This course provides a general overview of topics including research techniques in psychology, evolutionary psychology, the biology of behaviour, learning and behaviour, sensation, perception, memory and consciousness. The most influential findings from each of these areas will be highlighted.

Exclusion: PSY100H, PSY100Y, (PSY101H)
Breadth Requirements: Natural Sciences

PSYA02H3 - Introduction to Clinical, Developmental, Personality and Social Psychology

This course provides a general overview of topics including language, intelligence, development, motivation and emotion, personality, social psychology, stress, mental disorders and treatments of mental disorders. The most influential findings from each of these areas will be highlighted.

Exclusion: PSY100H, PSY100Y, (PSY102H)
Breadth Requirements: Social & Behavioural Sciences

PSYB03H3 - Introduction to Computers in Psychological Research

The course will provide introductory knowledge and hands-on training in computer-based implementations of experimental design, data processing and result interpretation in psychology. The course covers implementations of experimental testing paradigms, computational explorations of empirical data structure and result visualization with the aid of specific programming tools (e.g., Matlab).

Prerequisite: PSYA01H3 and PSYA02H3
Corequisite: PSYB07H3 or STAB22H3 or STAB23H3
Enrolment Limits: 35
Breadth Requirements: Quantitative Reasoning
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream. Students enrolled in the Specialist/Specialist Co op programs in Psychology and Mental Health Studies. Major program in Psychology or Mental Health will be admitted as space permits.

PSYB07H3 - Data Analysis in Psychology

This course focuses on the fundamentals of the theory and the application of statistical procedures used in research in the field of psychology. Topics will range from descriptive statistics to simple tests of significance, such as Chi-Square, t-tests, and one-way Analysis-of-Variance. A working knowledge of algebra is assumed. Students in the Specialist programs in Psychology, Psycholinguistics or Neuroscience will be given priority for this course.

Exclusion: ANTC35H3, MGEB11H3/(ECMB11H3), MGEB12H3/(ECMB12H3), PSY201H, (SOCB06H3), STAB22H3, STAB23H3, STAB52H3, STA220H, STA221H, STA250H, STA257H
Breadth Requirements: Quantitative Reasoning

PSYB10H3 - Introduction to Social Psychology

Surveys a wide range of phenomena relating to social behaviour.
Social Psychology is the study of how feelings, thoughts, and behaviour are influenced by the presence of others. The course is designed to explore social behaviour and to present theory and research that foster its understanding.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: PSY220H
Breadth Requirements: Social & Behavioural Sciences

PSYB20H3 - Introduction to Developmental Psychology

Developmental processes during infancy and childhood.
This course presents students with a broad and integrative overview of child development. Major theories and research findings will be discussed in order to understand how the child changes physically, socially, emotionally, and cognitively with age. Topics are organized chronologically beginning with prenatal development and continuing through selected issues in adolescence and life-span development.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: (PSYB21H3), PSY210H
Breadth Requirements: Social & Behavioural Sciences

PSYB30H3 - Introduction to Personality

This course is intended to introduce students to the scientific study of the whole person in biological, social, and cultural contexts. The ideas of classical personality theorists will be discussed in reference to findings from contemporary personality research.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: PSY230H
Breadth Requirements: Social & Behavioural Sciences

PSYB32H3 - Introduction to Clinical Psychology

Clinical psychology examines why people behave, think, and feel in unexpected, sometimes bizarre, and typically self-defeating ways. This course will focus on the ways in which clinicians have been trying to learn the causes of various clinical disorders and what they know about preventing and alleviating it.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: PSY240H, PSY340H
Breadth Requirements: Social & Behavioural Sciences

PSYB38H3 - Introduction to Behaviour Modification

An introduction to behaviour modification, focusing on attempts to regulate human behaviour. Basic principles and procedures of behaviour change are examined, including their application across different domains and populations. Topics include operant and respondent conditioning; reinforcement; extinction; punishment; behavioural data; ethics; and using behaviourally-based approaches (e.g., CBT) to treat psychopathology.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: PSY260H1, (PSYB45H3)
Breadth Requirements: Social & Behavioural Sciences

PSYB51H3 - Introduction to Perception

Theory and research on perception and cognition, including visual, auditory and tactile perception, representation, and communication. Topics include cognition and perception in the handicapped and normal perceiver; perceptual illusion, noise, perspective, shadow patterns and motion, possible and impossible scenes, human and computer scene-analysis, ambiguity in perception, outline representation. The research is on adults and children, and different species. Demonstrations and exercises form part of the course work.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: NROC64H3, PSY280H1
Breadth Requirements: Natural Sciences

PSYB55H3 - Introduction to Cognitive Neuroscience

The course explores how the brain gives rise to the mind. It examines the role of neuroimaging tools and brain-injured patients in helping to uncover cognitive networks. Select topics include attention, memory, language, motor control, decision-making, emotion, and executive functions.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: [(PSYB65H3) if taken in Fall 2017 or Summer 2018], (PSYC55H3), PSY493H1
Enrolment Limits: 300
Breadth Requirements: Natural Sciences

PSYB57H3 - Introduction to Cognitive Psychology

A discussion of theories and experiments examining human cognition. This includes the history of the study of human information processing and current thinking about mental computation. Topics covered include perception, attention, thinking, memory, visual imagery, language and problem solving.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: PSY270H
Breadth Requirements: Natural Sciences

PSYB64H3 - Introduction to Behavioural Neuroscience

A survey of the biological mechanisms underlying fundamental psychological processes intended for students who are not in a Neuroscience program. Topics include the biological basis of motivated behaviour (e.g., emotional, ingestive, sexual, and reproductive behaviours; sleep and arousal), sensory processes and attention, learning and memory, and language.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: NROC61H3, PSY290H
Breadth Requirements: Natural Sciences

PSYB70H3 - Methods in Psychological Science

This course focuses on scientific literacy skills central to effectively consuming and critiquing research in psychological science. Students will learn about commonly used research designs, how to assess whether a design has been applied correctly, and whether the conclusions drawn from the data are warranted. Students will also develop skills to effectively find and consume primary research in psychology.

Prerequisite: PSYA01H3 and PSYA02H3
Exclusion: (PSYB01H3), (PSYB04H3)
Breadth Requirements: Social & Behavioural Sciences

PSYB90H3 - Supervised Introductory Research in Psychology

This course provides an introduction to, and experience in, ongoing theoretical and empirical research in any field of psychology. Supervision of the work is arranged by mutual agreement between student and instructor. Students will typically engage in an existing research project within a supervisor's laboratory. Regular consultation with the supervisor is necessary, which will enhance communication skills and enable students to develop proficiency in speaking about scientific knowledge with other experts in the domain. Students will also develop documentation and writing skills through a final report and research journal. This course requires students to complete a permission form obtained from the Department of Psychology. This form must outline agreed-upon work that will be performed, must be signed by the intended supervisor, and returned to the Department of Psychology.

Prerequisite: PSYA01H3 and PSYA02H3 with at least an 80% average across both courses. A minimum of 4.0 credits [including PSYA01H3 and PSYA02H3] in any discipline, with an average cGPA of 3.0 . A maximum of 9.5 credits completed. Enrolment in a Psychology, Mental Health Studies, Neuroscience or Psycholinguistics program.
Exclusion: ROP299Y, LINB98H3
Recommended Preparation: B-level courses in Psychology or Psycholinguistics
Breadth Requirements: Social & Behavioural Sciences
Note: Notes:
1. Students receive a half credit spread across two-terms, therefore, the research in this course must take place across two consecutive terms.
2. Priority will be given to students enrolled in a Specialist/Major program in Psychology or Mental health studies, followed by students enrolled in a Specialist/Major program in Neuroscience or Psycholinguistics.
3. Enrolment will depend each year on the research opportunities available with each individual faculty member and the interests of the students who apply.

PSYC02H3 - Scientific Communication in Psychology

How we communicate in psychology and why. The differences between scientific and non-scientific approaches to behaviour and their implications for communication are discussed. The focus is on improving the student's ability to obtain and organize information and to communicate it clearly and critically, using the conventions of the discipline.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Psychology and Mental Health, the Specialist program in Neuroscience Cognitive stream, and the Specialist (Co-op) program in Neuroscience (Stage 1). Students enrolled in the Major programs in Psychology and Mental Health Studies will be admitted as space permits.

PSYC03H3 - Computers in Psychological Research: Advanced Topics

The course will provide advanced knowledge and hands-on training in computer-based implementations of experimental design, data processing and result interpretation in psychology. The course covers implementations of experimental testing paradigms, computational explorations of empirical data structure, and result visualization with the aid of specific programming tools (e.g., Matlab).

Prerequisite: PSYB03H3
Enrolment Limits: 35
Breadth Requirements: Quantitative Reasoning
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream. Students enrolled in the Specialist/Specialist Co-op programs in Psychology and Mental Health Studies. Majors program in Psychology or Mental Health will be admitted as space permits.

PSYC06H3 - Psychophysiology Laboratory

This course will provide students with an introduction to physiological processes that are related to psychological processes. Students will gain a theoretical background in psychophysiology as well as read key empirical papers related to the psychological correlates of each physiological system. This course will be a primary methods course for psychology specialists, such that students will acquire advanced skills involved in the acquisition of psychophysiological data and become well-versed in appropriate psychophysiological theory and inference.

Prerequisite: [PSYB01H3 or PSYB04H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and PSYC02H3
Enrolment Limits: 35; Restricted to students in the Specialist/Specialist Co-op programs in Psychology. Students in any Mental Health Studies program and the Major in Psychology will be admitted if space permits.
Breadth Requirements: Natural Sciences

PSYC08H3 - Advanced Data Analysis in Psychology

The primary focus of this course is on the understanding of Analysis-of-Variance and its application to various research designs. Examples will include *a priori* and *post hoc* tests. Finally, there will be an introduction to multiple regression, including discussions of design issues and interpretation problems.

Prerequisite: [PSYB07H3 or STAB23H3 or STAB22H3] and [an additional 0.5 credit at the B-level in PSY course];
Exclusion: (STAC52H3), PSY202H
Breadth Requirements: Quantitative Reasoning
Note: Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology, Mental Health Studies, Neuroscience, and Paramedicine. Students in the Minor program in Psychology will be admitted as space permits.

PSYC09H3 - Applied Multiple Regression in Psychology

An introduction to multiple regression and its applications in psychological research. The course covers the data analysis process from data collection to interpretation: how to deal with missing data, the testing of assumptions, addressing problem of multicolinearity, significance testing, and deciding on the most appropriate model. Several illustrative data sets will be explored in detail. The course contains a brief introduction to factor analysis. The goal is to provide the students with the skills and understanding to conduct and interpret data analysis in non-experimental areas of psychology.

Prerequisite: [PSYB07H3 or STAB22H3 or STAB23H3] and an additional 0.5 credit at the B-level in Psychology
Exclusion: MGEC11H3
Enrolment Limits: 90
Breadth Requirements: Quantitative Reasoning
Note: Restricted to students enrolled in the Specialist/Specialist Co-op and Major programs in Psychology, and Mental Health Studies, and the Specialist/Specialist Co-op in Neuroscience Cognitive stream. Students in the Minor program in Psychology will be admitted if space permits.

PSYC10H3 - Judgment and Decision Making

This course examines the psychology of judgment and decision making, incorporating perspectives from social psychology, cognitive psychology, and behavioral economics. Understanding these topics will allow students to identify errors and systematic biases in their own decisions, and improve their ability to predict and influence the behavior of others.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB10H3 or PSYB57H3 or PSYC57H3]
Enrolment Limits: 100
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students in the Specialist/Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.

PSYC12H3 - The Psychology of Prejudice

A detailed examination of selected social psychological topics introduced in PSYB10H3. This course examines the nature of attitudes, stereotypes and prejudice, including their development, persistence, and automaticity. It also explores the impact of stereotypes on their targets, including how stereotypes are perceived and how they affect performance, attributions, and coping.

Prerequisite: PSYB10H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY322H
Enrolment Limits: Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC13H3 - Social Cognition: Understanding Ourselves and Others

A comprehensive survey of how cognitive processes (e.g., perception, memory, judgment) influence social behaviour. Topics include the construction of knowledge about self and others, attitude formation and change, influences of automatic and controlled processing, biases in judgment and choice, interactions between thought and emotion, and neural specializations for social cognition.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB10H3 or PSYB57H3]
Exclusion: PSY326H, PSY473H, PSY417H
Enrolment Limits: 100
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students in the Specialist/Specialist Co-op and Major programs in Psychology, Mental Health Studies and Neuroscience. Students in the Minor program in Psychology will be admitted if space permits.

PSYC14H3 - Cross-Cultural Social Psychology

A survey of the role of culture in social thought and behaviour. The focus is on research and theory that illustrate ways in which culture influences behaviour and cognition about the self and others, emotion and motivation. Differences in individualism and collectivism, independence and interdependence as well as other important orientations that differ between cultures will be discussed. Social identity and its impact on acculturation in the context of immigration will also be explored.

Prerequisite: PSYB10H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY321H
Enrolment Limits: Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC16H3 - Psychology of Imagination

The course will examine different aspects of imagination in a historical context, including creativity, curiosity, future-mindedness, openness to experience, perseverance, perspective, purpose, and wisdom along with its neural foundations.

Prerequisite: PSYB10H3 and [PSYB20H3 or PSYB30H3 or PSYB51H3 or PSYB55H3 or PSYB57H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Enrolment Limits: 100
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op, and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.

PSYC18H3 - The Psychology of Emotion

What is an emotion? How are emotions experienced and how are they shaped? What purpose do emotions serve to human beings? What happens when our emotional responses go awry? Philosophers have debated these questions for centuries. Fortunately, psychological science has equipped us with the tools to explore such questions on an empirical level. Building with these tools, this course will provide a comprehensive overview of the scientific study of emotion. Topics will include how emotions are expressed in our minds and bodies, how emotions influence (and are influenced by) our thoughts, relationships, and cultures, and how emotions can both help us thrive and make us sick. A range of perspectives, including social, cultural, developmental, clinical, and cognitive psychology, will be considered.

Prerequisite: PSYB10H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY331H, (PSY394H), PSY494H
Enrolment Limits: Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC19H3 - Psychology of Self Control

A detailed examination of how organisms exercise control, bringing thoughts, emotions and behaviours into line with preferred standards. Topics include executive function, the neural bases for self control, individual differences in control, goal setting and goal pursuit, motivation, the interplay of emotion and control, controversies surrounding fatigue and control, and decision-making.

Prerequisite: PSYB10H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Enrolment Limits: 100
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students in the Specialist, Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted as space permits.

PSYC21H3 - Adulthood and Aging

An examination of topics in adult development after age 18, including an examination of romantic relationships, parenting, work-related functioning, and cognitive, perceptual, and motor changes related to aging.

Prerequisite: PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY313H, PSY311H
Enrolment Limits: Restricted to students in the Specialist, Specialist Co-op and Major programs in Psychology and Mental Health Studies, and the Specialists program in Paramedicine and Psycholinguistics. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC22H3 - Infancy

Infants must learn to navigate their complex social worlds as their bodies and brains undergo incredible changes. This course explores physical and neural maturation, and the development of perception, cognition, language, and social-emotional understanding in infants prenatally until preschool.

Prerequisite: PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY316H1, PSY316H5
Enrolment Limits: 100
Breadth Requirements: Social & Behavioural Sciences

PSYC23H3 - Developmental Psychobiology

A review of the interplay of psychosocial and biological processes in the development of stress and emotion regulation. Theory and research on infant attachment, mutual regulation, gender differences in emotionality, neurobiology of the parent-infant relationship, and the impact of socialization and parenting on the development of infant stress and emotion.

Prerequisite: PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Enrolment Limits: Restricted to students in the Specialist, Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Natural Sciences

PSYC24H3 - Childhood and Adolescence

This advanced course in developmental psychology explores selected topics in childhood and adolescent development during school age (age 4 through age 18). Topics covered include: cognitive, social, emotional, linguistic, moral, perceptual, identity, and motor development, as well as current issues in the field as identified by the instructor.

Prerequisite: PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY310H5
Enrolment Limits: 100
Breadth Requirements: Social & Behavioural Sciences

PSYC27H3 - Social Development

This course will examine research and theory on the evolution and development of social behaviour and social cognition with a focus on social instincts, such as empathy, altruism, morality, emotion, friendship, and cooperation. This will include a discussion of some of the key controversies in the science of social development from the second half of the nineteenth century to today.

Prerequisite: PSYB10H3 and PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY311H
Recommended Preparation: PSYB55H3 or PSYB64H3
Enrolment Limits: 100
Breadth Requirements: Social & Behavioural Sciences

PSYC31H3 - Clinical Neuropsychology

Clinical neuropsychology is an applied science concerned with the behavioural expression of brain dysfunction. In this course we will first examine the brain and localization of neuropsychological function. We will then explore the science and practice of clinical neuro-psychology where tests measuring different neuropsychological domains (e.g., memory, attention and so on) are employed in patient populations to infer brain dysfunction. Students in the Specialist (Co-operative) Program in Mental Health Studies should enrol in PSYC73H3, not in this course.

Prerequisite: PSYB32H3 and [PSYB55H3 or (PSYB65H3)] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSYC73H3/(PSYC32H3), (PSY393H)
Enrolment Limits: 75; Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology, Mental Health Studies and Neuroscience. Students in the Specialist program in Integrative Biology and the Minor in Psychology will be admitted if space permits.
Breadth Requirements: Natural Sciences

PSYC33H3 - Neuropsychological Rehabilitation

An examination of the therapeutic methods used to improve the capacity of a brain damaged individual to process and use incoming information, enhancing functioning in everyday life. Students will be introduced to methods that aim to restore cognitive function by compensatory techniques. Neuropsychological rehabilitation problems caused by deficits in attention, visual processing, language, memory, reasoning/problem solving, and executive functioning will be stressed. Lectures and demonstrations. Students in the Specialist (Co-operative) Program in Mental Health Studies will have priority for entry to the course.

Prerequisite: PSYB57H3 and [PSYC31H3 or (PSYC32H3) or PSYC73H3]
Breadth Requirements: Natural Sciences
Note: Restricted to students enrolled in the Specialist/Specialist Co-op programs in Mental Health Studies. Students enrolled in the Major program in Mental Health Studies will be admitted if space permits.

PSYC35H3 - Advanced Personality Psychology

This course is intended to advance students' understanding of contemporary personality theory and research. Emerging challenges and controversies in the areas of personality structure, dynamics, and development will be discussed.

Prerequisite: PSYB30H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY337H
Enrolment Limits: Restricted to students in the Specialist, Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC36H3 - Psychotherapy

This course will provide students with an introduction to prominent behavioural change theories (i.e. psychodynamic, cognitive/behavioural, humanist/existential) as well as empirical evidence on their efficacy. The role of the therapist, the patient and the processes involved in psychotherapy in producing positive outcomes will be explored.

Prerequisite: PSYB32H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY343H
Enrolment Limits: Restricted to students in the Mental Health Studies programs.
Breadth Requirements: Social & Behavioural Sciences

PSYC37H3 - Psychological Assessment

This course deals with conceptual issues and practical problems of identification, assessment, and treatment of mental disorders and their psychological symptomatology. Students have the opportunity to familiarize themselves with the psychological tests and the normative data used in mental health assessments. Lectures and demonstrations on test administration and interpretation will be provided.

Prerequisite: PSYB32H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY330H
Enrolment Limits: Restricted to students in the Mental Health Studies programs.
Breadth Requirements: Social & Behavioural Sciences

PSYC39H3 - Psychology and the Law

This course focuses on the application of psychology to the law, particularly criminal law including cognitive, neuropsychological and personality applications to fitness to stand trial, criminal responsibility, risk for violent and sexual recidivism and civil forensic psychology.

Prerequisite: PSYB32H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: (PSYC53H3), PSY328H, PSY344H
Enrolment Limits: Restricted to students in the Specialist, Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC50H3 - Higher-Level Cognition

This course examines advanced cognitive functions through a cognitive psychology lens. Topics covered include: thinking, reasoning, decision-making, problem-solving, creativity, and consciousness.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB55H3 or PSYB57H3 or [(PSYB65) if taken in Fall 2017 or Summer 2018]]
Enrolment Limits: 100
Breadth Requirements: Natural Sciences
Note: Priority will be given to students in the Specialist, Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted as space permits.

PSYC51H3 - Cognitive Neuroscience of Vision

This course will provide an in-depth examination of research in the field of visual cognitive neuroscience. Topics will include the visual perception of object features (shape, colour, texture), the perception of high-level categories (objects, faces, bodies, scenes), visual attention, and comparisons between the human and monkey visual systems.

Prerequisite: PSYB51H3 and [PSYB55H3 or (PSYB65H3)] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3)] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY380H
Enrolment Limits: 100
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream, and the Specialist/Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students enrolled in the Minor program in Psychology will be admitted as space permits.

PSYC52H3 - Cognitive Neuroscience of Attention

This course is about understanding how the human brain collects information from the environment so as to perceive it and to interact with it. The first section of the course will look into the neural and cognitive mechanisms that perceptual systems use to extract important information from the environment. Section two will focus on how attention prioritizes information for action. Additional topics concern daily life applications of attentional research.

Prerequisite: PSYB51H3 and [PSYB55H3 or PSYB57H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3)] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY475H
Enrolment Limits: 100
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream, and the Specialist/Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students enrolled in the Minor program in Psychology will be admitted as space permits.

PSYC53H3 - Cognitive Neuroscience of Memory

An exploration of how the brain supports different forms of memory, drawing on evidence from electrophysiological, patient neuropsychological and neuroimaging research. Topics include short-term working memory, general knowledge of the world (semantic memory), implicit memory, and memory for personally experienced events (episodic memory).

Prerequisite: [PSYB55H3 or (PSYB65H3) if taken in Fall 2017 or Summer 2018)] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY372H
Recommended Preparation: PSYB57H3
Enrolment Limits: 100
Breadth Requirements: Natural Sciences
Note: Priority will be given to students in the Specialist/Specialist Co-op program in Neuroscience, and the Specialist/Specialist Co-op/Major programs in Psychology and Mental Health Studies. Students in the Minor in Psychology will be admitted as space permits.

PSYC56H3 - Music Cognition

Studies the perceptual and cognitive processing involved in musical perception and performance. This class acquaints students with the basic concepts and issues involved in the understanding of musical passages. Topics will include discussion of the physical and psychological dimensions of sound, elementary music theory, pitch perception and melodic organization, the perception of rhythm and time, musical memory, musical performance, and emotion and meaning in music.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB51H3 or PSYB55H3 or PSYB57H3]
Enrolment Limits: Restricted to students in the Specialist, Specialist Co-op and Major programs in Psychology and Mental Health Studies. Students in the Minor program in Psychology will be admitted if space permits.
Breadth Requirements: Natural Sciences

PSYC57H3 - Cognitive Neuroscience of Decision Making

This course will introduce students to current understanding, and ongoing debates, about how the brain makes both simple and complex decisions. Findings from single-cell neurophysiology, functional neuroimaging, and computational modeling will be used to illuminate fundamental aspects of choice, including reward prediction, value representation, action selection, and self-control.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB55H3 or (PSYB65H3)]
Recommended Preparation: PSYB03H3
Enrolment Limits: 100
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream and Major program in Psychology and Mental Health Studies. Students enrolled in the Minor program in Psychology will be admitted as space permits.

PSYC59H3 - Cognitive Neuroscience of Language

This course provides an overview of the cognitive and neural processes and representations that underlie language abilities. Core topics include first language acquisition, second language acquisition and bilingualism, speech comprehension, and reading. Insights into these different abilities will be provided from research using behavioural, neuroimaging, computational, and neuropsychological techniques.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB51H3 or PSYB57H3] and [PSYB55H3 or (PSYB65H3)]
Enrolment Limits: 100
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream, and the Specialist/Specialist Co-op and Major program in Psychology and Mental Health Studies. Students in the Specialist/Specialist Co-op program in Psycholinguistics and the Minor program in Psychology will be admitted as space permits.

PSYC62H3 - Drugs and the Brain

An examination of behavioural and neurobiological mechanisms underlying the phenomenon of drug dependence. Topics will include principles of behavioural pharmacology and pharmacokinetics, neurobiological mechanisms of drug action, and psychotropic drug classification. In addition, concepts of physical and psychological dependence, tolerance, sensitization, and reinforcement and aversion will also be covered.

Prerequisite: [PSYB07H3 or STAB22H3 or STAB23H3] and [at least 0.5 credit from the following: PSYB64H3, PSYB55H3, (PSYB65H3), NROB60H3] and [an additional 0.5 credit at the B-level or C-level in PSY or NRO courses]
Exclusion: PSY396H, PCL475Y
Enrolment Limits: Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology, Mental Health Studies, and Neuroscience. Students in the Specialist program in Integrative Biology will be admitted if space permits.
Breadth Requirements: Natural Sciences

PSYC70H3 - Advanced Research Methods Laboratory

The course focuses on methodological skills integral to becoming a producer of psychological research. Students will learn how to identify knowledge gaps in the literature, to use conceptual models to visualize hypothetical relationships, to select a research design most appropriate for their questions, and to interpret more complex patterns of data.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Psychology and Mental Health, the Specialist program in Neuroscience Cognitive stream, and the Specialist (Co-op) program in Neuroscience (Stage 1). Major program in Psychology and Mental Health Studies will be admitted as space permits.

PSYC71H3 - Social Psychology Laboratory

Introduces conceptual and practical issues concerning research in social psychology, and provides experience with several different types of research.
This course is designed to consider in depth various research approaches used in social psychology (such as attitude questionnaires, observational methods for studying ongoing social interaction). Discussion and laboratory work.

Prerequisite: PSYB10H3 and [(PSYB01H3) or (PSYB04H3) or PSYC70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and PSYC02H3
Exclusion: PSY329H, (PSYC11H3)
Enrolment Limits: 35; Restricted to students in the Specialist, Specialist Co-op programs in Psychology. Students in any Mental Health Studies programs and the Major program in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC72H3 - Developmental Psychology Laboratory

This course introduces conceptual and practical issues concerning research in developmental psychology. Developmental psychology focuses on the process of change within and across different phases of the life-span. Reflecting the broad range of topics in this area, there are diverse research methods, including techniques for studying infant behaviour as well as procedures for studying development in children, adolescents, and adults. This course will cover a representative sample of some of these approaches.

Prerequisite: PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYC70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and PSYC02H3
Exclusion: PSY319H, (PSYC26H3)
Enrolment Limits: 24; Restricted to students in the Specialist/Specialist Co-op programs in Psychology. Students in any Mental Health Studies program and the Major in Psychology will be admitted if space permits.
Breadth Requirements: Social & Behavioural Sciences

PSYC73H3 - Clinical Neuropsychology Laboratory

The applied science concerned with the behavioural expression of brain dysfunction for students in the Specialist (Co-op) program in Mental Health Studies. Lecture and demonstration material will be as described for PSYC31H3, Clinical Neuropsychology, but students will also complete a laboratory component. The laboratory will afford the student the opportunity for hands-on experience with a number of neuropsychological measures and will emphasize the learning of specific test administration and interpretation.

Prerequisite: PSYB32H3 and [PSYB55H3 or (PSYB65H3)] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Corequisite: PSYC02H3
Exclusion: PSYC31H3, (PSYC32H3)
Enrolment Limits: Enrolment is limited to students in the Specialist Co-op Program in Mental Health Studies.
Breadth Requirements: Natural Sciences

PSYC74H3 - Human Movement Laboratory

In this course students will be introduced to the study of human movement across a range of topics (e.g., eye-movements, balance, and walking), and will have the opportunity to collect and analyze human movement data. Additional topics include basic aspects of experimental designs, data analysis and interpretation of such data.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: (PSYC05H3)
Recommended Preparation: PSYC02H3 and PSYC70H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Systems/Behavioural stream, followed by students in the Specialist/Specialist Co-op program in Psychology. Students in any Mental Health Studies program or the Major program in Psychology will be admitted as space permits.

PSYC75H3 - Cognitive Psychology Laboratory

This course introduces conceptual and practical issues concerning research in cognitive psychology. Students will be introduced to current research methods through a series of practical exercises conducted on computers. By the end of the course, students will be able to program experiments, manipulate data files, and conduct basic data analyses.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYC70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB51H3 or PSYB55H3 or PSYB57H3] and PSYC02H3
Exclusion: PSY379H, (PSYC58H3)
Recommended Preparation: PSYC08H3
Enrolment Limits: 35
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream, followed by students in the Specialist/Specialist Co-op program in Psychology. Students in any Mental Health Studies program or the Major program in Psychology will be admitted as space permits.

PSYC76H3 - Brain Imaging Laboratory

The course introduces brain imaging techniques, focusing on techniques such as high-density electroencephalography (EEG) and transcranial magnetic stimulation (TMS), together with magnet-resonance-imaging-based neuronavigation. Furthermore, the course will introduce eye movement recordings as a behavioural measure often co-registered in imaging studies. Students will learn core principles of experimental designs, data analysis and interpretation in a hands-on manner.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYC70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB55H3 or (PSYB65H3)] and PSYC02H3
Exclusion: (PSYC04H3)
Enrolment Limits: 35
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream, followed by students enrolled in the Specialist/Specialist Co-op program in Psychology. Students enrolled in any Mental Health Studies program or the Major program in Psychology will be admitted as space permits.

PSYC85H3 - History of Psychology

A survey of developments in Western philosophy and science which influenced the emergence of modern psychology in the second half of the Nineteenth Century. Three basic problems are considered: mind-body, epistemology (science of knowledge), and behaviour/motivation/ethics. We begin with the ancient Greek philosophers, and then consider the contributions of European scholars from the Fifteenth through Nineteenth Centuries. Twentieth Century schools are discussed including: psychoanalysis, functionalism, structuralism, gestalt, behaviourism, and phenomenology.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [1.0 credit at the B-level in PSY courses]
Exclusion: PSY450H, (PSY300H)
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Restricted to senior students enrolled in the Specialist/Specialist Co-op programs in Psychology and Mental Health Studies. Students enrolled in the Major program in Psychology and Mental Health Studies will be admitted if space permits.

PSYC90H3 - Supervised Study in Psychology

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms.
These courses provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report.
Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website (www.utsc.utoronto.ca/psych/undergraduates) that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course, including the structure of the required log-book.
Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Psychology faculty at UTSC then a secondary advisor, that is appointed at UTSC, will be required.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [2.0 credits in PSY courses and permission of the proposed supervisor].
Normally students need a cumulative GPA of at least 2.7 for permission to be granted.
Exclusion: (COGC91H3), NROC90H3, PSY303H, PSY304H

PSYC93H3 - Supervised Study in Psychology

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms.
These courses provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report.
Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course, including the structure of the required log-book.
Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Psychology faculty at UTSC then a secondary advisor, that is appointed at UTSC, will be required.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [2.0 credits in PSY courses and permission of the proposed supervisor].
Normally students need a cumulative GPA of at least 2.7 for permission to be granted.
Exclusion: (COGC92H3), NROC93H3, PSY303H, PSY304H

PSYD10H3 - Community and Applied Social Psychology

This course examines the applications of social psychological theory and research to understand and address social issues that affect communities. In doing so the course bridges knowledge from the areas of social psychology and community psychology. In the process, students will have the opportunity to gain a deeper understanding of how theories and research in social psychology can be used to explain everyday life, community issues, and societal needs and how, reciprocally, real-life issues can serve to guide the direction of social psychological theories and research.

Prerequisite: PSYB10H3 and [0.5 credit at the C-level from PSY courses in the 10-series or 30-series] and [PSYB70H3 or (PSYB01H3) or (PSYB04H3)] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSYD15H3 (if taken in Spring or Fall 2019)
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD11H3 - Psychology of Interpersonal Relationships

This course focuses on social psychological theory and research pertaining to close interpersonal relationships. The course will cover topics including perceptions of and interactions within close relationships, development and maintenance of relationships, and relationship conflict and dissolution.

Prerequisite: PSYB10H3 and [PSYC12H3 or PSYC14H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY420H, PSY424H, (PSY324H)
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD12H3 - Social Psychology of the Self

This seminar explores the topic of the self from an experimental social-psychological perspective, including an in depth analysis of the fundamental processes of the “hyphenated self:” self-knowledge, self-esteem, self-regulation, for just a few examples. This course is designed to not only introduce students to much of the important theory and research in the social psychology of the self, but also to develop critical thinking skills.

Prerequisite: PSYB10H3 and [PSYC12H3 or PSYC14H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY326H, PSY420H
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD13H3 - The Psychology of Emotion Regulation

This seminar offers an in depth introduction to the recent scientific literature on how humans manage and control their emotions (emotion regulation). We will explore why, and how, people regulate emotions, how emotion regulation differs across individuals and cultures, and the influence that emotion regulation has upon mental, physical, and social well-being.

Prerequisite: PSYB10H3 and [PSYC13H3 or PSYC18H3 or PSYC19H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSYD15H3 if taken in Winter 2017
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences
Note: Priority enrolment will be given to students who have completed PSYC18H3

PSYD14H3 - Psychology of Morality

This course provides an in-depth introduction to the field of moral psychology. In recent years there has been a resurgence of interest in the science of human morality; the goal of this course is to offer an introduction to the research in this field. The course will incorporate perspectives from a variety of disciplines including philosophy, animal behaviour, neuroscience, economics, and almost every area of scientific psychology (social psychology, developmental psychology, evolutionary psychology, and cognitive psychology). By the end of the course students will be well versed in the primary issues and debates involved in the scientific study of morality.

Prerequisite: PSYB10H3 and [PSYC12H3 or PSYC13H3 or PSYC14H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSYD15H3 if taken in Fall 2015
Recommended Preparation: PSYC08H3
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD15H3 - Current Topics in Social Psychology

An intensive examination of selected issues and research problems in social psychology.

Prerequisite: PSYB10H3 and [PSYC12H3 or PSYC14H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY326H, PSY420H
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD16H3 - Critical Analysis in Social Psychology

The development of social psychology is examined both as a discipline (its phenomena, theory, and methods) and as a profession. The Natural and Human Science approaches to phenomena are contrasted. Students are taught to observe the lived-world, choose a social phenomenon of interest to them, and then interview people who describe episodes from their lives in which these phenomena occurred. The students interpret these episodes and develop theories to account for their phenomena before searching for scholarly research on the topic.

Prerequisite: PSYB10H3 and [0.5 credit at the C-level in PSY courses] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY420H
Recommended Preparation: PSYC12H3 or (PSYC11H3) or PSYC71H3
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD17H3 - Social Neuroscience

This course investigates how linking theory and evidence from psychology, neuroscience, and biology can aid in understanding important social behaviors. Students will learn to identify, critique, and apply cutting-edge research findings to current real-world social issues (e.g., prejudice, politics, moral and criminal behavior, stress and health).

Prerequisite: [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB55H3 or PSYB64H3 or (PSYB65H3)] and [0.5 credit from the PSYC10-series or PSYC50-series courses]
Exclusion: PSY473H, (PSY373H)
Recommended Preparation: [PSYC13H3 or PSYC57H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3]
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

PSYD18H3 - Psychology of Gender

This course focuses on theory and research pertaining to gender and gender roles. The social psychological and social-developmental research literature concerning gender differences will be critically examined. Other topics also will be considered, such as gender-role socialization.

Prerequisite: PSYB10H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [1.0 credit at the C-level in PSY courses]
Exclusion: PSY323H
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD20H3 - Current Topics in Developmental Psychology

An intensive examination of selected issues and research problems in developmental psychology.
The specific content will vary from year to year with the interests of both instructor and students. Lectures, discussions, and oral presentations by students.

Prerequisite: PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]
Exclusion: PSY410H
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD22H3 - Socialization Processes

The processes by which an individual becomes a member of a particular social system (or systems). The course examines both the content of socialization (e.g., development of specific social behaviours) and the context in which it occurs (e.g., family, peer group, etc.). Material will be drawn from both social and developmental psychology.

Prerequisite: PSYB10H3 and PSYB20H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]
Exclusion: PSY311H, PSY410H
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD23H3 - Dyadic Processes in Psychological Development

Mutual recognition is one of the hallmarks of human consciousness and psychological development. This course explores mutual recognition as a dyadic and regulatory process in development, drawing on diverse theories from developmental science, social psychology, neuroscience, philosophy, literature, psychoanalysis, and gender studies.

Prerequisite: [PSYC13H3 or PSYC18H3 or PSYC23H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD24H3 - Seeing, Hearing, and Moving in Children

An in-depth examination of aspects related to perceptual and motor development in infancy and childhood. The topics to be covered will be drawn from basic components of visual and auditory perception, multisensory integration, and motor control, including reaching, posture, and walking. Each week, students will read a set of experimental reports, and will discuss these readings in class. The format of this course is seminar-discussion.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB20H3 or PLIC24H3] and [0.5 credit at the C-level in PSY courses]
Exclusion: PSY410H
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

PSYD30H3 - Current Topics in Personality Psychology

An intensive examination of selected issues and research problems in personality psychology. The specific content will vary from year to year.

Prerequisite: PSYB30H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY430H
Recommended Preparation: PSYC35H3
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD31H3 - Cultural-Clinical Psychology

This course provides an in-depth introduction to the field of cultural-clinical psychology. We examine theoretical and empirical advances in understanding the complex interplay between culture and mental health, focusing on implications for the study and treatment of psychopathology. Topics include cultural variations in the experience and expression of mental illness.

Prerequisite: PSYB32H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]
Exclusion: PSYD33H3 (if taken in Fall 2013/2014/2015 or Summer 2014/2015)
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD32H3 - Personality Disorders

This course reviews the latest research on the causes, longitudinal development, assessment, and treatment of personality disorders. Students will learn the history of personality disorders and approaches to conceptualizing personality pathology. Topics covered include “schizophrenia-spectrum” personality disorders, biological approaches to psychopathy, and dialectical behaviour therapy for borderline personality disorder.

Prerequisite: PSYB30H3 and PSYB32H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]
Exclusion: PSY430H
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD33H3 - Current Topics in Clinical Psychology

An intensive examination of selected issues and research problems in abnormal psychology. The specific content will vary from year to year.

Prerequisite: PSYB32H3 and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]
Exclusion: PSY440H
Recommended Preparation: [(PSYB01H3) or (PSYB04H3) or PSYB70H3]
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD35H3 - Clinical Psychopharmacology

This course reviews the psychopharmacological strategies used for addressing a variety of mental health conditions including anxiety, depression, psychosis, impulsivity, and dementia. It will also address the effects of psychotropic drugs on patients or clients referred to mental health professionals for intellectual, neuropsychological and personality testing. Limitations of pharmacotherapy and its combinations with psychotherapy will be discussed.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB55H3 or (PSYB65H3)] and PSYC62H3
Enrolment Limits: This course is restricted to students in the Mental Health Studies programs.
Breadth Requirements: Natural Sciences

PSYD37H3 - Social Context of Mental Health and Illness

This course is an opportunity to explore how social practices and ideas contribute to the ways in which society, families and individuals are affected by mental health and mental illness.

Prerequisite: 10.0 credits completed and enrolment in the Combined BSc in Mental Health Studies/Masters of Social Work or Specialist/Specialist-Co-op programs in Mental Health Studies
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD39H3 - Cognitive Behavioural Therapy

This course provides an in-depth exploration of cognitive behavioural therapies (CBT) for psychological disorders. Topics covered include historical and theoretical foundations of CBT, its empirical evidence base and putative mechanisms of change, and a critical review of contemporary clinical applications and protocols.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and PSYC36H3
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD50H3 - Current Topics in Memory and Cognition

An intensive examination of selected topics. The specific content will vary from year to year.

Prerequisite: [PSYB55H3 or PSYB57H3] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]
Exclusion: PSY470H, PSY471H
Enrolment Limits: 24
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream and the Specialist/Specialist Co-op program in Psychology. Students enrolled in any Mental Health Studies program or the Major program in Psychology will be admitted as space permits.

PSYD51H3 - Current Topics in Perception

This course provides an intensive examination of selected topics in recent research on perception. Topics may include research in vision, action, touch, hearing and multisensory integration. Selected readings will cover psychological and neuropsychological findings, neurophysiological results, synaesthesia and an introduction to the Bayesian mechanisms of multisensory integration.

Prerequisite: PSYB51H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [[0.5 credit from the PSYC50-series of courses] or NROC64H3]
Exclusion: PSYD54H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

PSYD52H3 - Neural Network Models of Cognition Laboratory

This course provides an overview of neural-network models of perception, memory, language, knowledge representation, and higher-order cognition. The course consists of lectures and a lab component. Lectures will cover the theory behind the models and their application to specific empirical domains. Labs will provide hands-on experience running and analyzing simulation models.

Prerequisite: [0.5 credit at the C-level in PSY 50-series courses] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]
Recommended Preparation: [PSYB03H3 or CSCA08H3 or CSCA20H3] and [MATA23H3 and [MATA29H3 or MATA30H3]]
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

PSYD54H3 - Current Topics in Visual Recognition

The course provides an intensive examination of selected topics in the research of visual recognition. Multiple components of recognition, as related to perception, memory and higher-level cognition, will be considered from an integrative psychological, neuroscientific and computational perspective. Specific topics include face recognition, visual word recognition and general object recognition.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB51H3 or PSYB57H3] and [[0.5 credit from the PSYC50-series of courses] or NROC64H3]
Exclusion: [PSYD50H3 if taken in Winter 2014, 2015 or 2016], PSYD51H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

PSYD55H3 - Functional Magnetic Resonance Imaging Laboratory

An in-depth study of functional magnetic resonance imaging (fMRI) as used in cognitive neuroscience, including an overview of MR physics, experimental design, and statistics, as well as hands-on experience of data processing and analysis.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB55H3 or (PSYB65H3) or (PSYC55H3)]
Recommended Preparation: PSYC76H3 or (PSYC04H3) or PSYC51H3 or PSYC52H3 or PSYC57H3 or PSYC59H3
Enrolment Limits: 24
Breadth Requirements: Natural Sciences
Note: Priority will be given to students enrolled in the Specialist/Specialist Co-op program in Neuroscience Cognitive stream, followed by students enrolled in the Specialist/Specialist Co-op program in Psychology who have successfully completed PSYC76H3 or (PSYC04H3).

PSYD59H3 - Psychology of Gambling

This course takes a cognitive approach to understanding the initiation and perpetuation of gambling behaviours, with a particular interest in making links to relevant work in neuroscience, social psychology, and clinical psychology.

Prerequisite: [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [PSYB32H3 or PSYB45H3] and [PSYB55H3 or (PSYB65H3 if taken in Fall 2017 or Summer 2018) or PSYB57H3]
Exclusion: PSYD50H3 if taken in any of the following sessions: Winter 2017, Summer 2017, Winter 2018, Summer 2018
Recommended Preparation: [PSYC10H3 or PSYC19H3 or PSYC50H3 or PSYC57H3]
Enrolment Limits: 24
Breadth Requirements: Social & Behavioural Sciences

PSYD66H3 - Current Topics in Human Brain and Behaviour

An extensive examination of selected topics in human brain and behaviour. The neural bases of mental functions such as language, learning, memory, emotion, motivation and addiction are examples of the topics that may be included.

Prerequisite: [PSYB55H3 or (PSYB65H3)] and [0.5 credit at the C-level in PSY or NRO courses] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and
[PSYB07H3 or STAB22H3 or STAB23H3]
Exclusion: PSY490H
Enrolment Limits: 24
Breadth Requirements: Natural Sciences

PSYD98Y3 - Thesis in Psychology

This course offers the opportunity to engage in a year long research project under the supervision of an interested member of the faculty in Psychology. The project will culminate in a written report in the form of a thesis and a poster presentation. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigation. Students must first find a supervisor, which is usually confirmed before the start of the academic term in which the project will be initiated. Students will meet as a group with the coordinator as well as individually with their supervisor. This course is restricted to Specialists in Psychology and Mental Health Studies with a cumulative GPA of 3.3 or higher. Students planning to pursue graduate studies are especially encouraged to enrol in the course. Students must obtain a permission form from the Psychology departmental website (www.utsc.utoronto.ca/psych/undergraduates) that is to be completed and signed by the intended supervisor, and submitted to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course. Students seeking supervision off campus will need to arrange co-supervision with a faculty member in Psychology at this campus.

Prerequisite: PSYC02H3 and [(PSYB01H3) or PSYC70H3] and [PSYC08H3 or PSYC09H3] and [enrollment in Specialist program in Psychology or Mental Health Studies] and [CGPA of 3.3 or higher]. Note: Registration in D-level courses on ROSI is tentative. This is to ensure spaces in these courses for students who need them to graduate at the end of the current session. ROSI will show your status in the course and its final confirmation.
Exclusion: NROD98Y3, (COGD10H3), PSY400Y

Public Policy

Faculty List

- A. Allahwala, B.A., M.A. (Freie Universität Berlin), Ph.D. (York), Associate Professor, Teaching Stream
- C. Cochrane, B.A. (St. Thomas), M.A. (McGill), Ph.D. (Toronto), Associate Professor
- M. Hoffmann, B.S. (Michigan Technological University), Ph.D. (George Washington University), Professor
- N. Klenk, B.Sc., M.Sc. (McGill), Ph.D. (UBC), Associate Professor
- R. Levine, B.A. (Rochester), Ph.D. (Duke), Assistant Professor, Teaching Stream
- S. Renckens, B.A., M.A., M.Sc. (Leuven), Ph.D. (Yale), Assistant Professor
- R. Schertzer, B.A. (Carleton), M.Sc., Ph.D. (London School of Economics), Associate Professor
- G. Skogstad, B.A., M.A. (Alberta), Ph.D. (British Columbia), Professor
- J. Teichman, B.A., M.A., Ph.D. (Toronto), FRSC, Professor
- P. Triadafilopoulos, B.A. (Toronto), M.A., (Brock), Ph.D. (New School NY), Associate Professor

Associate Chair: C. Cochrane
Program Advisor Email: pol-advisor@utsc.utoronto.ca

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Public Policy Programs

MAJOR PROGRAM IN PUBLIC POLICY (ARTS)

The Major Program in Public Policy equips students with the analytical and methodological skills they will need to secure employment as policy analysts in government, business, and non-governmental sectors, or to continue to graduate training in public policy.

The Program is cross-disciplinary. Public policy analysis is the exercise of applying the theoretical frameworks and positivist and interpretive methodologies of the social sciences and humanities to understand the development, implementation, and evaluation of public policy. It requires the ability to think clearly and critically, to design and execute research projects, to analyze both quantitative and qualitative data, and to write clearly. It also requires an understanding of the context, institutions, and processes of policy-making and implementation, as well as concepts and criteria for policy evaluation.

Program Requirements
Students must complete a total of 8.0 credits as follows:

1. 1.0 credit at the A- or B-level in Anthropology, City Studies, Geography, International Development Studies, Political Science, or Sociology

Note: at least 0.5 credit at the A-level in Political Science is recommended. We also recommend interested students take introductory courses in disciplines like City Studies, Economics for Management Studies, Environmental Science, International Development Studies, and Sociology that may reflect their particular substantive interests.

2. Economics for Public Policy (1.0 credit):
[MGEA01H3 and MGEA05H3] or [MGEA02H3 and MGEA06H3]

3. Canadian Politics (1.0 credit)
POLB50Y3 Canadian Government and Politics

4. Fundamentals of Public Policy (1.0 credit)
PPGC66H3 Public Policy Making
PPGC67H3 Public Policy in Canada

5. Research Methods (1.0 credit, including at least 0.5 credit in Quantitative Methods)
Quantitative Methods courses include:
ANTC35H3 Quantitative Methods in Anthropology
MGEB11H3 Quantitative Methods in Economics I
GGRA30H3 Geographic Information Systems
POLC11H3 Applied Statistics for Politics and Public Policy
STAB23H3 Introduction to Statistics for the Social Sciences

Qualitative Methods courses include:
ANTB19H3 Ethnography and the Comparative Study of Human Societies
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography
POLC78H3 Political Analysis I

6. Applications of Public Policy (3.0 credits in Public Policy courses,* from the following list or other courses with the approval of the supervisor of studies; of these, 1.0 credit must be at the C- or D-level in POL courses).
CITB04H3 City Politics
CITC04H3 Current Municipal and Planning Policy and Practice in Toronto
CITC07H3 Urban Social Policy
CITC12H3 City Structures and City Choices: Local Government, Management, and Policymaking
CITC15H3 Taxing and Spending: Public Finances in Canadian Cities
CITC16H3 Planning and Governing the Metropolis
CITC18H3 Urban Transportation Policy Analysis
GGRC13H3 Urban Political Geography
HLTB40H3 Health Policy and Health Systems
HLTC43H3 Politics of Canadian Health Policy
IDSB01H3 Political Economy of International Development
IDSB04H3 Introduction to International/Global Health
MGEB31H3 Public Decision Making
MGEB32H3 Economic Aspects of Public Policy
MGEC31H3 Economics of the Public Sector: Taxation
MGEC32H3 Economics of the Public Sector: Expenditures
MGEC34H3 Economics of Health Care
MGEC38H3 The Economics of Canadian Public Policy
MGEC91H3 Economics and Government
MGSC03H3 Public Management
MGSC05H3 The Changing World of Business- Government Relations

MGSC12H3 Narrative and Management
POLC36H3 Law and Public Policy
POLC53H3 Canadian Environmental Policy
POLC54H3 Intergovernmental Relations in Canada
POLC57H3 Intergovernmental Relations and Public Policy
POLC65H3 Political Strategy
POLC69H3 Political Economy: International and Comparative Perspectives
POLC83H3 Applications of American Foreign Policy
POLC87H3 International Cooperation and Institutions
POLC93H3 Public Policies in the United States
POLC98H3 International Political Economy of Finance
POLD50H3 Political Interests, Political Identity, and Public Policy
POLD52H3 Immigration and Canadian Political Development
POLD53H3 Political Disagreement in Canada
POLD67H3 The Limits of Rationality
POLD87H3 Rational Choice and International Cooperation
POLD89H3 Global Environmental Politics
POLD90H3 Public Policy and Human Development in the Global South
PPGD64H3 Comparative Public Policy
SOCB47H3 Social Inequality
SOCC37H3 Environment and Society
* Many of these courses have prerequisites that are not requirements in the Major in Public Policy, please plan accordingly. In addition, we recommend taking methods courses from within your disciplinary Major program.

MAJOR (CO-OPERATIVE) PROGRAM IN PUBLIC POLICY (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Public Policy is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors.

The program equips students with the analytical and methodological skills to secure employment as policy analysts in government, business, and the non-governmental sectors, or to continue on to graduate training in public policy. The Program is cross-disciplinary; public policy analysis is the exercise of applying the theoretical frameworks and the positivist and interpretive methodologies of the social sciences and humanities to understand the development, implementation, and evaluation of public policy. It requires the ability to think clearly and critically, to design and execute research projects, to analyze both quantitative and qualitative data, and to write clearly. It also requires an understanding of the context, institutions, and processes of policy-making and implementation, as well as concepts and criteria for policy evaluation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms. An optional third work term may be complete with the permission of the Co-op Coordinator.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject

POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Public Policy.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Public Policy and have completed at least 10.0 credits, including POLB50Y3 (Canadian Government and Politics), and 0.5 credit of Research Methods.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN URBAN PUBLIC POLICY AND GOVERNANCE (ARTS)

The cross-disciplinary Minor program in Urban Public Policy and Governance equips students with the conceptual tools and methodological skills they will need to understand and analyze processes of city-regional and municipal governance and policy making in Canadian and comparative perspective. The main emphasis is placed on the policy and governance dilemmas of contemporary local governments and how these are distinct from those experienced at other levels: structural revenue constraints, infrastructure deficits, socio-spatial polarization, competition for investment, inadequate accountability and ethics regimes for politicians and public servants, and the distinctive ways in which local policymaking takes place through public deliberation.

Students completing the Minor program in Urban Public Policy and Governance combined with a Major program in City Studies, Public Policy, Human Geography, Political Science, Economics for Management Studies, History, Critical Development Studies or other relevant programs will be well prepared for graduate studies in public policy and governance, urban planning, and public administration, and for public sector careers at the municipal and provincial levels, or in the non-profit and advocacy sectors.

Program Requirements
This program requires the completion of 4.0 credits as follows:

1. Foundations - 1.0 credit as follows:
[CITB01H3 Canadian Cities and Planning and CITB04H3 City Politics]
or
[GGRA03 Cities and Environments and GGRB05 Urban Geography]
or
POLB50Y3 Canadian Government and Politics

2. Core courses - 1.0 credit as follows:
CITC12H3 City Structures and City Choices: Local Government, Management, and Policymaking
CITC15H3 Taxing and Spending: Public Finance in Canadian Cities

3. Applications of Urban Public Policy and Governance - 2.0 credits from the following:
CITC04H3 Current Municipal and Planning Policy and Practice in Toronto
CITC07H3 Urban Social Policy
CITC16H3 Planning and Governing the Metropolis
CITC17H3 Civic Engagement in Urban Politics
CITD01H3 City Issues and Strategies

CITD10H3 Seminar in Selected Issues in City Studies
GGRC13H3 Urban Political Geography
GGRC33H3 The Toronto Region
PPGC66H3/(POLC66H3) Public Policy Making
PPGC67H3/(POLC67H3) Public Policy in Canada

Public Policy Courses

PPGC66H3 - Public Policy Making

This course provides an introduction to the study of public policy. The course will address theories of how policy is made and the influence of key actors and institutions. Topics include the policy cycle (agenda setting, policy information, decision making, implementation, and evaluation), policy durability and change, and globalization and policy making.
Areas of Focus: Public Policy, Comparative Politics, Canadian Government and Politics

Prerequisite: [POLB50Y3 or equivalent] or [1.5 credits at the B-level in CIT courses]
Exclusion: (POLC66H3)
Breadth Requirements: Social & Behavioural Sciences

PPGC67H3 - Public Policy in Canada

This course is a survey of contemporary patterns of public policy in Canada. Selected policy studies including managing the economy from post-war stabilization policies to the rise of global capitalism, developments in the Canadian welfare state and approaches to external relations and national security in the new international order.
Areas of Focus: Canadian Government and Politics; Public Policy

Prerequisite: [POLB50Y3 or equivalent] or 1.5 credits at the B-level in CIT courses]
Exclusion: (POLC67H3)
Breadth Requirements: Social & Behavioural Sciences

PPGD64H3 - Comparative Public Policy

This seminar course explores some of the major theoretical approaches to the comparative analysis of public policies across countries. The course explores factors that influence a country's policy making process and why countries' policies diverge or converge. Empirically, the course examines several contemporary issue areas, such as economic, social or environmental policies.
Areas of Focus: Comparative Politics; Public Policy

Prerequisite: PPGC66H3 and [[POLB50Y3 or equivalent] or [POLB92H3 and (POLB93H3)]] and [1.5 credits at the C-level in POL courses]
Exclusion: (POLD64H3)
Recommended Preparation: PPGC67H3
Enrolment Limits: 25
Breadth Requirements: Social & Behavioural Sciences

Religion

Undergraduate Advisor: 416-287-7184 Email: religion-undergrad-advisor@utsc.utoronto.ca

The Minor in Religion is suspended to new enrolments. Students who are already enrolled in the Program should consult the 2012-13 *Calendar.*

The Department of Historical and Cultural Studies continues to offer courses in a variety of programs that address major questions in the study of religion. It also offers introductory courses in the history and practice of world religions.

Religion Courses

RLGA01H3 - World Religions I

An introduction to major religious traditions of the world. This course emphasizes the history, beliefs, practices and writings of Hinduism, Jainism, Sikhism, Buddhism, Confucianism, Taoism, and Shinto.

Exclusion: (HUMB04H3)
Breadth Requirements: History, Philosophy & Cultural Studies

RLGA02H3 - World Religions II

An introduction to major religious traditions of the world. This course emphasizes the history, beliefs, practices and writings of Judaism, Christianity and Islam.

Exclusion: (HUMB03H3)
Breadth Requirements: History, Philosophy & Cultural Studies

RLGB02H3 - Living Religions: Rituals and Experiences

Critical comparative study of the major Indian religious traditions.

Breadth Requirements: History, Philosophy & Cultural Studies

RLGB10H3 - Introduction to the Study of Religion

An introduction to the academic study of religion, with special attention to method and theory.

Breadth Requirements: History, Philosophy & Cultural Studies

RLGC05H3 - The Qur'an in Interpretive and Historical Context

An exploration of the origins, content, interpretation, and significance of the Qur'an, with a particular emphasis on its relationship to the scriptural tradition of the Abrahamic faiths. No knowledge of Arabic is required.

Prerequisite: RLGA02H3 or (RLGB01H3) or (HUMB03H3)
Exclusion: RLG351H, NMC285H, (HUMC17H3)
Breadth Requirements: History, Philosophy & Cultural Studies

RLGC06H3 - Saints and Mystics in Buddhism

Comparative study of the Madhyamaka and Yogacara traditions, and doctrines such as emptiness (*sunyata*), Buddha-nature (*tathagatagarbha*), cognitive-representation only (*vijnaptimatrata*), the three natures (*trisvabhava*).

Prerequisite: RLGA01H3 or (HUMB04H3)
Exclusion: EAS368Y
Breadth Requirements: History, Philosophy & Cultural Studies

RLGC07H3 - Topics in Buddhist Philosophy: Buddhist Ethics

Buddhism is a response to what is fundamentally an ethical problem - the perennial problem of the best kind of life for us to lead. Gotama was driven to seek the solution to this problem and the associated ethical issues it raises. This course discusses the aspects of *sila*, ethics and psychology, *nirvana*; ethics in Mahayana; Buddhism, utilitarianism, and Aristotle.

Prerequisite: RLGA01H3 or (HUMB04H3) or (PHLB42H3)
Exclusion: NEW214Y, (PHLC40H3)
Breadth Requirements: History, Philosophy & Cultural Studies

RLGC09H3 - Islam in Asia

The course examines the development of Islam in the contexts of Asian religions and cultures, and the portrayal of the Muslim world in Asian popular culture.

Prerequisite: RLGA01H3 or (HUMB04H3)
Recommended Preparation: RLGC05H3
Breadth Requirements: History, Philosophy & Cultural Studies

RLGC10H3 - Hinduism in South Asia and the Diaspora

An examination of Hinduism in its contemporary diasporic and transnational modes in South Asia. Attention is also paid to the development of Hinduism in the context of colonialism.

Prerequisite: RLGA01H3 or (HUMB04H3)
Recommended Preparation: RLGB02H3
Breadth Requirements: History, Philosophy & Cultural Studies

RLGC13H3 - Religious Diversity in Speech and Text

Philosophical, anthropological, historical, and linguistic discussions about language use in a variety of religious contexts. The course examines the function of language through an analysis of its use in both oral and written form.

Prerequisite: Any 5 full credits, including RLGA01H3 or RLGA02H3 or RLGB10H3
Breadth Requirements: History, Philosophy & Cultural Studies

RLGC14H3 - Religion and Globalization: Continuities and Transformations

The course cultivates an appreciation of the global perspective of religions in the contemporary world and how religious frameworks of interpretation interact with modern social and political realities. It provides a viewpoint of religion through ideas and issues related to globalization, syncretism, and modernity.

Prerequisite: Any 5 full credits, including RLGA01H3 or RLGA02H3 or RLGB10H3
Breadth Requirements: Social & Behavioural Sciences

RLGC40H3 - Selected Topics in the Study of Religion I

Intensive study of selected topics discussed in RLGA01H3 (World Religions I) that will vary with each offering of the course.

Prerequisite: 2.0 full credits in RLG and permission of the instructor
Exclusion: (HUMC44H3)
Breadth Requirements: History, Philosophy & Cultural Studies

RLGC41H3 - Selected Topics in the Study of Religion II

Intensive study of selected topics discussed in RLGA02H3 (World Religions II) that will vary with each offering of the course.

Prerequisite: 2.0 full credits in RLG and permission of the instructor
Exclusion: (HUMC43H3)
Breadth Requirements: History, Philosophy & Cultural Studies

RLGD01H3 - Supervised Readings in the Study of Religion

A student-initiated research project to be approved by the Department and supervised by one of the faculty members.

Prerequisite: 2.0 full credits in RLG at the C-level and permission of the instructor

RLGD02H3 - Seminar in Religion

A seminar in which students have the opportunity, under the supervision of a member of the Religion faculty, to develop and present independent research projects focused around a set of texts, topics, and/or problems relevant to the study of religion.

Prerequisite: RLGB10H3 and 2 C-level courses in Religion
Enrolment Limits: 15

Society and Environment

There are no programs in Society and Envrionment. The course identified below is offered for Society and Environment.

Society And Environment Courses

SOED01H3 - Environmental Internship

This course offers students the opportunity to gain practical research experience as an intern with an environmental organization. Students will be required to arrange their own internship and to complete at least 50 hours of work with the organization. Evaluation will be based on a research paper.

Prerequisite: Completion of at least 10 full credits and prior permission of the program supervisor.

Sociology

Faculty List

- C. Childress, B.A. (Vassar College), M.A., Ph.D. (UC-Santa Barbara), Assistant Professor
- E.F. Elcioglu, M.A., Ph.D. (UC-Berkeley), Assistant Professor
- E. Fosse, B.A. (Kansas), M.A., Ph.D. (Harvard), Assistant Professor
- A. Grigoryeva. B.A. (National University-Higher School of Economics, Moscow), M.A., Ph.D. (Princeton), Assistant Professor
- J. Hannigan, B.A., M.A. (Western Ontario), Ph.D. (Ohio State), Professor
- J. Hermer, B.A. (Western), M.A. (Carleton), D.Phil. (Oxon), Associate Professor
- P-c. Hsiung, B.A. (National Chun-sing), M.A. (Chinese Cultural), M.A., Ph.D. (UCLA), Associate Professor
- P. Landolt, B.A., M.A. (York), M.A., Ph.D. (Johns Hopkins), Associate Professor
- K. Liddle, B.A. (Oberlin College, Ohio), M.A. (Auburn University, Alabama), Ph.D. (Emory), Assistant Professor
- A. Mullen, B.A. (Berkeley), M.A., Ph.D. (Yale), Associate Professor
- R. O'Toole, B.A. (Leeds), PGCE (London), M.A. (McMaster), Ph.D. (Toronto), Professor Emeritus
- R. Salem, B.A. (American University-Cairo), M.A. (Oxford), Ph.D. (Princeton), Assistant Professor
- A. Sev'er, B.A., M.A. (Windsor), Ph.D. (York), Professor Emeritus
- D. Silver, B.A. (Berkeley), M.A., Ph.D. (Chicago), Associate Professor
- N. Spence, B.A., Ph.D. (Western), Assistant Professor
- D. Silver, B.A. (Berkeley), M.A., Ph.D. (Chicago), Associate Professor
- J. Tanner, B.Sc. (London), PGCE (Leicester), M.A., Ph.D. (Alberta), Professor

Chair: P. Landolt
Program Advisor: B. Gonzalez-Shin Email: sociologyadvisor.utsc@utoronto.ca

Sociology challenges us to see the world in new ways to solve social problems, build resilient communities, and nurture democratic structures. Sociology asks complex questions. It seeks to explain how society is ordered and disordered, what accounts for social cohesion, cooperation, and conflict and the causes of social inequality. Sociology is diverse. Sociologists study many social issues: the impact of race, religion, class and gender on life chances; institutions such as families, workplaces, and gangs; processes such as racialization, globalization and indigenization; and politics related to work, health, cultural pluralism, incarceration and city building. What unifies sociology is the focus on how human action shapes and is shaped by surrounding structures.

Sociology programs teach students how to design and carry out quantitative and qualitative research, and analyze evidence to arrive at understanding and explanation. Students acquire a diverse set of transferable skills. You will learn to use theoretically informed and evidence-based arguments to assess concrete social problems. You will become adept at analyzing and interpreting statistics and qualitative data. You will develop excellent verbal and written communication skills and you will learn to translate research into effective social policy recommendations.

Students successfully completing a degree in Sociology at UTSC will acquire a strong foundation for both further studies at a graduate level and for professional careers in fields including law, education,

science fields, social work and health care, marketing and communication, human resources, non-profit organizations and social policy among others.

Students are encouraged to contact the Program Advisor or Associate Chair to discuss program requirements and their individual course of study.

Combined Degree Programs, Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc) /Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Programs options are:

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Planning a Program in Sociology
Students are advised to take required courses in the Specialist and Major Programs as early in their careers as possible. For example, SOCA03Y3 should be taken during the first year, SOCB05H3, SOCB35H3, SOCB42H3 and SOCB43H3 should be taken during the second year and SOCC40H3 should be taken during the third year. Failure to do so may lead to timetable conflicts and could prolong the completion of the program.
Students may combine a Specialist or Major in Sociology with either the Minor Program in Culture, Creativity, and Cities OR the Minor Program in Migration and Ethnic Diversity. Students who combine their Specialist or Major Program in Sociology with one of these two Minor programs may only count SOCA03Y3 (SOCA01H3 and SOCA02H3) toward both programs. Other Sociology programs cannot be combined.

Prerequisites:
Students are reminded that they are not permitted to register in courses for which they have not completed the prerequisites indicated in the *Calendar*. They may only enter a course for which they lack the prerequisites by obtaining permission from the Department of Sociology prior to registration. Ineligible students will be removed from courses.

Applied Writing Skills Courses:
Courses designated as Applied Writing Skills Courses develop students' writing skills. Students receive formative feedback on drafts of written work and the opportunity to develop a piece of writing over the term. Specific in-depth feedback on writing is given by the course instructor or course TA. The Applied Writing Skills Courses are: SOCC03H3, SOCC11H3, SOCC23H3, SOCC24H3, SOCC30H3, SOCC31H3, SOCC34H3, SOCC40H3, SOCC47H3 and SOCC58H3.

Research-Intensive Courses:
Students interested in careers involving research or in pursuing graduate school or professional programs are strongly advised to take courses that ensure the development of their research skills including the logic of argumentation, research design, and data collection and analysis. In their second year, students should take SOCB05H3 and SOCB35H3. In the third year, two C-level

research practicums (SOCC23H3 and SOCC31H3) offer students the opportunity to carry out independent research projects. In their final year, students are encouraged to take research-based courses such as SOCD01H3, SOCD05H3, SOCD21H3, SOCD25H3, SOCD50H3 and SOCD51H3.

Special Topic Courses:
Themes for special topic courses will vary year to year. For more information please visit the Department of Sociology website.

Enrolment Priority: Program students will be given priority access to all Sociology courses.

Sociology Areas of Concentration Table:

Culture and Cities	Criminology and Sociology of Law	Gender and Family	Migra Et
SOCB44H3 SOCB58H3 SOCC26H3 SOCC27H3 SOCC44H3 SOCC54H3 SOCD01H3 SOCD51H3	SOCB50H3 SOCB59H3 SOCC03H3 SOCC11H3 SOCC30H3 SOCC45H3 SOCC46H3 SOCD05H3	SOCB22H3 SOCB49H3 SOCC09H3 SOCC24H3 SOCC29H3 SOCC38H3 SOCD10H3 SOCD20H3	SOCB53H SOCB60H SOCC25H SOCC34H SOCC52H SOCC55H SOCD15H SOCD21H

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Sociology Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees

(HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry - Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	Science - Biology
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics	Science - Physics

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist in Physical and Mathematical Sciences	
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	Social Science - General
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.

- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):
    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;

    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject, and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).
- Year 5 and 6: Remaining MT program and degree requirements:
    - students must complete 11.0 credits as identified by OISE.

SPECIALIST PROGRAM IN SOCIOLOGY (ARTS)

Enrolment Requirements
Enrolment in the Specialist program is limited. Students will normally apply to enter the program after completing 4.0 or 5.0 credits including SOCA03Y3. Decisions are made on program admissions only twice a year, in May and in August, and are based on student requests submitted to the Office of the Registrar through ROSI. Admission will require a final grade of 70% or higher in SOCA03Y3 (or a CGPA of 70% or higher in SOCA01H3 and SOCA02H3). For students applying after completing 8.0 to 10.0 credits, admission will be on the basis of SOC courses completed, or on overall CGPA for those students who have not completed any SOC courses. Specialist students will be entitled to priority access to SOCB42H3, SOCB43H3, SOCC23H3 and SOCC31H3, for fall-winter sessions, during the summer early registration period.

Program Requirements
The Program requires completion of 12.0 credits as described below. No more than 14.0 credits in Sociology may be included in a four-year degree.

1. 1.0 credit as follows:
[(SOCA01H3) Introduction to Sociology I and (SOCA02H3) Introduction to Sociology II] or SOCA03Y3 Introduction to Sociology

2. SOCB05H3 Logic of Social Inquiry

3. SOCB35H3 Numeracy and Society

4. SOCB42H3 Classical Sociological Theory I

5. SOCB43H3 Classical Sociological Theory II

6. 3.0 credits at the B-level in Sociology

7. SOCC40H3 Contemporary Sociological Theory

8. SOCC23H3 Practicum in Qualitative Research Methods
or
SOCC31H3 Practicum in Quantitative Research Methods

9. 0.5 SOC credit at the C-level that has been designated as an Applied Writing Skills course

10. 4.5 additional credits at the C- or D- level in SOC courses*, of which at least 1.0 credit must be at the D-level.
*Students may substitute courses from cognate disciplines with the prior approval of the program supervisor.

MAJOR PROGRAM IN SOCIOLOGY (ARTS)

Enrolment Requirements
Enrolment in the Major program is limited. Students will normally apply to enter the program after completing 4.0 or 5.0 credits including SOCA03Y3. Decisions are made on program admissions only twice a year, in May and in August, and are based on student requests submitted to the Office of the Registrar through ACORN. Admission will require a final grade of 65% or higher in SOCA03Y3 (or a CGPA of 65% or higher in SOCA01H3 and SOCA02H3). For students applying after completing 8.0 to 10.0 credits, admission will be on the basis of SOC courses completed, or on overall CGPA for those students who have not completed any SOC courses. Specialist students will be entitled to priority access to SOCB42H3 and SOCB43H3 for fall-winter sessions, during the summer early registration period.

Program Requirements
The Program requires completion of 7.0 credits in Sociology including:

1. 1.0 credit as follows:
[(SOCA01H3) Introduction to Sociology I and (SOCA02H3) Introduction to Sociology II] or
SOCA03Y3 Introduction to Sociology

2. SOCB05H3 Logic of Social Inquiry

3. SOCB35H3 Numeracy and Society

4. SOCB42H3 Classical Sociological Theory I

5. SOCB43H3 Classical Sociological Theory II

6. 0.5 credit in SOC courses at the C-level that has been designated as an Applied Writing Skills course

7. 3.5 additional credits in SOC courses, of which at least 1.5 credits must be at the C- or D-level

MINOR PROGRAM IN CRITICAL MIGRATION STUDIES (ARTS)

Program Advisor: Janet Roopnarinesingh janetr@utsc.utoronto.ca

The Minor program in Critical Migration Studies offers students an understanding of the causes and consequences of international migration in sending, transit and receiving societies. Issues of race and

ethnicity are highlighted along with the role of class, gender, sexuality, and citizenship in understanding how societies decide to include, exclude, and regulate different groups of migrants. The Minor is interdisciplinary in content and method; through data-driven coursework and experiential learning, students will develop a suite of transferable skills in research design, quantitative and qualitative data analysis, and written, oral, and digital communication.

Program Restrictions
Students in the Minor in Critical Migration Studies may count only 1.0 credit in Sociology courses, from the following list, towards completion of the program: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3], SOCB05H3.

Program Requirements
The program requires the completion of 4.0 credits as follows:

1. 1.0 credit from the following:
ANTA02H3 Introduction to Anthropology: Society, Culture and Language
GASA01H3/HISA06H3 Introducing Global Asia and its Histories
GASA02H3 Introduction to Global Asia Studies
GGRA02H3 The Geography of Global Processes
HISA04H3 Themes in World History I
HISA05H3 Themes in World History II
HLTA02H3 Foundations in Health Studies I
HLTA03H3 Foundations in Health Studies II
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II
[(SOCA01H3) Introduction to Sociology I and (SOCA02H3) Introduction to Sociology II] or SOCA03Y3 Introduction to Sociology]

2. SOCB60H3 Issues in Critical Migration Studies

3. 0.5 credit from the following:
ANTB19H3 Ethnography and the Comparative Study of Human Societies
ANTB20H3 Culture, Politics and Globalization
GGRB02H3 The Logic of Geographical Thought
HISB03H3 Critical Writing and Research for Historians
HLTB15H3 Introduction to Health Research Methodology
SOCB05H3 Logic of Social Inquiry

4. 0.5 credit from the following:
ANTB16H3 Canadian Cultural Identities
GASB53H3 Mughals and the World, 1500-1858 AD
GASB74H3/HISB74H3 Asian Foods and Global Cities
GGRA35H3 The Great Scarborough Mashup: People, Place, Community, Experience
SOCB53H3 Race and Ethnicity

5. 1.0 credit from the following:
ANTC34H3 The Anthropology of Transnationalism
CITC01H3 Urban Communities and Neighbourhoods Case Study: East Scarborough
GASC59H3 The Making of Tamil Worlds
GASD01H3/HISD09H3 Senior Seminar: Topics in Global Asian Migrations
GASD56H3 'Coolies' and Others: Asian Labouring Diasporas in the British Empire
GGRC56H3 Spaces of Travel: Unsettling Migration, Tourism, and Everyday Mobilities

GGRD19H3 Spaces of Multiraciality: Critical Mixed Race Theory
HISB14H3 Edible History: History of Global Foodways
HISC11H3 Multiculturalism and Cultural Identities in the Greek and Roman Worlds
HISC36H3 People in Motion: Immigrants and Migrants in U.S History
HISD31H3 Thinking of Diversity: Perspectives on American Pluralisms
HISD35H3 The Politics of American Immigration, 1865-present
HLTD06H3 Special Topics in Migration and Public Health
POLD52H3 Immigration and Canadian Political Development
SOCC25H3 Ethnicity, Race and Migration
SOCC34H3 Migrations and Transnationalisms
SOCC52H3 International Migration and Immigrant Incorporation
SOCC55H3 Special Topics in Race and Ethnicity

6. 0.5 credit from the following:
SOCD15H3 Advanced Seminar in Critical Migration Studies
SOCD21H3 Immigrant Scarborough

MINOR PROGRAM IN CULTURE, CREATIVITY, AND CITIES (ARTS)

The Minor program in Culture, Creativity and Cities offers students an in-depth understanding of the relationship between culture and cities. The Minor is interdisciplinary in content and method. Through experiential learning, students will develop a suite of transferable skills in written, oral, and digital communication.

Program Requirements
The program requires the completion of 4.0 credits as follows:

1. 0.5 credit from the following:
ANTA02H3 Introduction to Anthropology: Society, Culture and Language
CITA01H3/(CITB02H3) Foundations of City Studies
GGRA02H3 The Geography of Global Processes
MDSA01H3 Introduction to Media Studies
MDSA02H3 History of Media
MGTA01H3 Introduction to Business
MGTA02H3 Managing the Business Organization
[SOCA03Y3 Introduction to Sociology or [(SOCA01H3) Introduction to Sociology I or (SOCA02H3) Introduction to Sociology II]]
VPAA10H3 Introduction to Arts and Media Management

2. SOCB58H3 Sociology of Culture

3. 1.0 credit from the following:
ACMB10H3 Equity and Diversity in the Arts
ENGB37H3 Popular Literature and Mass Culture
GGRB05H3 Urban Geography
GGRB55H3 Cultural Geography
MDSB03H3 Advertising and Consumer Culture

MDSB25H3 Political Economy of Media

SOCB37H3 Economy, Culture, and Society
SOCB44H3 Sociology of Cities and Urban Life
VPAB05H3 Introduction to Contemporary Cultural Theory

4. SOCC26H3 Sociology of Urban Cultural Policies

5. 1.0 credit from the following:
ENGC59H3 Literature and the Environment
ENGC83H3 World Cinema
GGRC13H3 Urban Political Geography
SOCC27H3 Sociology of Suburbs and Suburbanization
SOCC44H3 Media and Society
SOCC47H3 Creative Industries
SOCD12H3 Sociology of Art
SOCD52H3 Sociology of Books
VPAC15H3 Cultural Policy

6. 0.5 credit from the following:

SOCD01H3 Advanced Seminar in Culture and Cities

SOCD51H3 Capstone Seminar in Culture, Creativity, and Cities

MINOR PROGRAM IN SOCIOLOGY (ARTS)

Admission to the Minor Program in Sociology is unlimited. However, students are warned that they are not guaranteed admission to B-level and C-level courses during fall and winter session, and thus will be accommodated only after other Program students have been admitted to these courses. Thus some courses may be unavailable, or available only in the summer.

Program Requirements
The Program requires completion of 4.0 credits in Sociology as follows:

1. 1.0 credit as follows:
[(SOCA01H3) Introduction to Sociology I and (SOCA02H3) Introduction to Sociology II] or
SOCA03Y3 Introduction to Sociology

2. SOCB05H3 Logic of Social Inquiry

3. 1.0 credit from the following:
SOCB30H3 Political Sociology
SOCB42H3 Classical Sociological Theory I
SOCB43H3 Classical Sociological Theory II
SOCB47H3 Social Inequality

4. 0.5 additional credit at the B-level in Sociology

5. 1.0 additional credit at the C-level in Sociology

Sociology Courses

SOCA03Y3 - Introduction to Sociology

This foundational skills course, which is taught over two full terms, provides a comprehensive introduction to the discipline of sociology beginning with how sociologists use theory and research methods to understand the social world. Topics covered will include culture, inequality, gender, sexualities, race and ethnicity, families, education, religion, crime, law, health, political economy, mass media, social change, and globalization.

Exclusion: (SOC101Y1), (SOCA01H3), (SOCA02H3)
Breadth Requirements: Social & Behavioural Sciences

SOCB05H3 - Logic of Social Inquiry

This course introduces the logic of sociological research and surveys the major quantitative and qualitative methodologies. Students learn to evaluate the validity of research findings, develop research questions and select appropriate research designs.

Prerequisite: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] and enrolment in a Sociology program] or [any 4.0 credits and enrolment in the Minor Critical Migration Studies]
Exclusion: SOC150H1, (SOC200H5), (SOC200Y5), SOC221H5, (SOCB40H3), (SOCB41H3)
Enrolment Limits: 170
Breadth Requirements: Quantitative Reasoning

SOCB22H3 - Sociology of Gender

This course examines gender as a sociological category that organizes and, at the same time, is organized by, micro and macro forces. By examining how gender intersects with race, ethnicity, class, sexuality, age, and other dimensions, we analyze the constitution and evolution of gendered ideology and practice.

Prerequisite: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] or [WSTA01H3 and WSTA03H3]
Breadth Requirements: Social & Behavioural Sciences

SOCB26H3 - Sociology of Education

This course offers a sociological perspective on a familiar experience: attending school. It examines the stated and hidden purposes of schooling; explores how learning in schools is organized; evaluates the drop-out problem; the determinants of educational success and failure; and, it looks at connections between school and work.

Prerequisite: [(SOCA01H3) and (SOCA02H3)] or SOCA03Y3
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB28H3 - Sociological Evidence for Everyday Life

This course will engage evidence-based sociological findings that are often related to how individuals make decisions in everyday life. Special attention will be paid to how empirical findings in sociology are used as evidence in different social contexts and decision making processes. The course should enable students to make direct connections between the insights of sociology and their own lives.

Prerequisite: SOCA03Y3
Enrolment Limits: 120
Breadth Requirements: Social & Behavioural Sciences

SOCB30H3 - Political Sociology

An examination of power in its social context. Specific attention is devoted to how and under what conditions power is exercised, reproduced and transformed, as well as the social relations of domination, oppression, resistance and solidarity. Selected topics may include: nations, states, parties, institutions, citizenship, and social movements.

Prerequisite: [(SOCA01H3) and (SOCA02H3)] or SOCA03Y3
Exclusion: SOC260H1, SOC335H5
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB35H3 - Numeracy and Society

This course introduces the basic concepts and assumptions of quantitative reasoning, with a focus on using modern data science techniques and real-world data to answer key questions in sociology. It examines how numbers, counting, and statistics produce expertise, authority, and the social categories through which we define social reality. This course avoids advanced mathematical concepts and proofs.

Corequisite: SOCA03Y3 or [(SOCA01H3) and (SOCA02H3)]
Enrolment Limits: 150
Breadth Requirements: Quantitative Reasoning

SOCB37H3 - Economy, Culture, and Society

This course offers a sociological account of economic phenomena. The central focus is to examine how economic activites are shaped, facilitated, or even impeded by cultural values and social relations, and show that economic life cannot be fully understood outside of its social context. The course will focus on economic activities of production, consumption, and exchange in a wide range of settings including labor and financial markets, corporations, household and intimate economies, informal and illegal economies, and markets of human goods.

Prerequisite: SOCA03Y3 or [(SOCA01H3) and (SOCA02H3)]
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB42H3 - Classic Sociological Theory I

The development of classic sociological theory from its Enlightenment origins to the eve of the 20th century. Special emphasis is placed on the work of Adam Smith, Karl Marx, Alexis de Tocqueville, and Auguste Comte. Special tutorials are devoted to learning the craft of effective writing.

Prerequisite: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] and enrolment in a Sociology program
Exclusion: SOC201H1, (SOC203Y1), SOC231H5
Enrolment Limits: 170
Breadth Requirements: History, Philosophy & Cultural Studies

SOCB43H3 - Classic Sociological Theory II

The development of classic sociological theory from the end of the 19th century to the eve of World War II. Special emphasis is placed on the work of Emile Durkheim, Max Weber, Georg Simmel, and G.H. Mead. Special tutorials are devoted to learning the craft of effective writing.

Prerequisite: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] and SOCB42H3 and enrolment in a Sociology program
Exclusion: (SOC203Y1)
Enrolment Limits: 170
Breadth Requirements: History, Philosophy & Cultural Studies

SOCB44H3 - Sociology of Cities and Urban Life

A theoretical and empirical examination of the processes of urbanization and suburbanization. Considers classic and contemporary approaches to the ecology and social organization of the pre-industrial, industrial, corporate and postmodern cities.

Prerequisite: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] or [any 4.0 credits and enrolment in the Minor in Culture, Creativity, and Cities, or the Major/Major Co-op in City Studies]
Exclusion: (SOC205Y1), SOC205H1
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB47H3 - Social Inequality

A sociological examination of the ways in which individuals and groups have been differentiated and ranked historically and cross-culturally. Systems of differentiation and devaluation examined may include gender, race, ethnicity, class, sexual orientation, citizenship/legal status, and ability/disability.

Prerequisite: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] or [any 4.0 credits and enrolment in the Major/Major Co-op in Public Policy]
Exclusion: SOC301Y
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB49H3 - Sociology of Family

This course explores the family as a social institution, which shapes and at the same time is shaped by, the society in North America. Specific attention will be paid to family patterns in relation to class, gender, and racial/ethnic stratifications. Selected focuses include: socialization; courtship; heterosexual, gay and lesbian relations; gender division of labour; immigrant families; childbearing and childrearing; divorce; domestic violence; elderly care.

Prerequisite: [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] or [WSTA01H3 and WSTA03H3]
Exclusion: SOC214Y
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB50H3 - Deviance and Normality I

This course explores how deviance and normality is constructed and contested in everyday life. The course revolves around the themes of sexuality, gender, poverty, race and intoxication. Particular attention will be paid to the role of official knowledge in policing social norms.

Prerequisite: [(SOCA01H3) and (SOCA02H3)] or SOCA03Y3
Exclusion: SOC212Y
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB53H3 - Race and Ethnicity

The course draws on a geographically varied set of case studies to consider both the historical development and contemporary state of the sociological field of race, racialization and ethnic relations.

Prerequisite: [[SOCA01H3 and SOCA02H3] or SOCA03Y3] or [any 4.0 credits and enrolment in the Minor in Critical Migration Studies]
Exclusion: SOC210Y
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB54H3 - Sociology of Work

Economic activity drives human society. This course explores the nature of work, how it is changing, and the impact of changes on the transition from youth to adult life. It also examines racism in the workplace, female labour force participation, and why we call some jobs 'professions', but not others.

Prerequisite: [(SOCA01H3) and (SOCA02H3)] or SOCA03Y3
Exclusion: SOC207H1, (SOC207Y), SOC227H5
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB58H3 - Sociology of Culture

An introduction to various ways that sociologists think about and study culture. Topics will include the cultural aspects of a wide range of social phenomena - including inequality, gender, economics, religion, and organizations. We will also discuss sociological approaches to studying the production, content, and audiences of the arts and media.

Prerequisite: [[(SOCA01H3)and (SOCA02H3)] or SOCA03Y3] or [any 4.0 credits and enrolment in the Minor in Culture, Creativity, and Cities]
Exclusion: SOC220H5, SOC280H1, (SOCC18H3),
Enrolment Limits: 170
Breadth Requirements: History, Philosophy & Cultural Studies

SOCB59H3 - Sociology of Law

This course examines the character, authority, and processes of law in contemporary liberal democracies.

Prerequisite: [(SOCA01H3) and (SOCA02H3)] or SOCA03Y3
Enrolment Limits: 170
Breadth Requirements: Social & Behavioural Sciences

SOCB60H3 - Issues in Critical Migration Studies

This course examines the political, economic, and cultural causes and consequences of migration as well as how global processes, like capitalism and neocolonialism, shape migration and refugee flows. Students will also learn about how and why laws and government policies facilitate the inclusion of some migrants and the exclusion of others.

Prerequisite: Completion of 1.0 credit from the following courses [[(SOCA01H3) and (SOCA02H3)] or SOCA03Y3], ANTA02H3, GGRA02H3, GASA01H3/HISA06H3, GASA02H3, HISA04H3, HISA05H3
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Minor program in Critical Migration Studies. Additional students will be admitted as space permits.

SOCB70H3 - Social Change

This course provides an introductory overview of the nature and causes of social change in contemporary societies. Topics covered include: changes in political ideology, cultural values, ethnic and sexual identities, religious affiliation, family formation, health, crime, social structure, and economic inequality.

Prerequisite: SOCA03Y3 or [(SOCA01H3) and (SOCA02H3)]
Enrolment Limits: 150
Breadth Requirements: Social & Behavioural Sciences

SOCC03H3 - Collective Behaviour

The study of uninstitutionalized group behaviour - crowds, panics, crazes, riots and the genesis of social movements.
This course has been designated an Applied Writing Skills Course.

Prerequisite: SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC04H3 - Social Movements

The development of an approach to social movements which includes the following: the origin of social movements, mobilization processes, the career of the movement and its routinization. The course readings will be closely related to the lectures, and a major concern will be to link the theoretical discussion with the concrete readings of movements.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Recommended Preparation: SOCB22H3 or SOCB49H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC09H3 - Sociology of Gender and Work

Explores the interaction of gender and work, both paid and unpaid work. Critically assesses some cases for central theoretical debates and recent research. Considers gender differences in occupational and income attainment, housework, the relation of work and family, gender and class solidarity, and the construction of gender identity through occupational roles.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [8.0 credits, including WSTB05H3 and enrolment in the Major program in Women's and Gender Studies]
Exclusion: SOC362H5
Recommended Preparation: SOCB22H3 or SOCB49H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC11H3 - Policing and Security

This course examines the character of policing and security programs in advanced liberal democracies. Attention will be paid to the nature and enforcement of modern law by both state and private agents of order, as well as the dynamics of the institutions of the criminal justice system. This course has been designated an Applied Writing Skills Course.

Prerequisite: SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Exclusion: (SOC306Y1), SOC326H5
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC15H3 - Work, Employment and Society

An upper level course that examines a number of critical issues and important themes in the sociological study of work. Topics covered will include: the changing nature and organization of work, precarious employment, different forms of worker organizing and mobilization, the professions, the transition from school to work.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Recommended Preparation: SOCB54H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC23H3 - Practicum in Qualitative Research Methods

This course provides students with hands-on experience conducting qualitative research. Each student will design and carry out a research project. Students will select their own research questions, review the relevant sociological literature, develop a research design, and conduct qualitative research, analyze, write up and present their findings. This course has been designated an Applied Writing Skills Course.

Prerequisite: [10.0 credits including [(SOCA01H3) and (SOCA02H3) or SOCA03Y3] and SOCB05H3] and a cumulative GPA of at least 2.3
Exclusion: (SOCD23H3)
Enrolment Limits: 15
Breadth Requirements: Social & Behavioural Sciences

SOCC24H3 - Special Topics in Gender and Family

A theoretical and empirical examination of different forms of family and gender relations. Of special interest is the way in which the institution of the family produces and reflects gendered inequalities in society. Themes covered include changes and continuities in family and gender relations, micro-level dynamics and macro-level trends in family and gender, as well as the interplay of structure and agency.
This course has been designated an Applied Writing Skills Course.

Prerequisite: SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Recommended Preparation: SOCB22H3 or SOCB49H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC25H3 - Ethnicity, Race and Migration

Why do people migrate and how do they decide where to go? How does a society determine which border crossers are ‘illegal’ and which are ‘legal’? Why are some people deemed ‘refugees’ while others are not? What consequences do labels like ‘deportee’, ‘immigrant,’ ‘refugee,’ or ‘trafficking victim’ have on the people who get assigned them? This course will examine these and other similar questions. We will explore how the politics of race, class, gender, sexuality and citizenship shape the ways that states make sense of and regulate different groups of migrants as well as how these regulatory processes affect im/migrants’ life opportunities.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [SOCB60H3 and an additional 8.0 credits and enrolment in the Minor program in Critical Migration Studies]
Recommended Preparation: SOCB22H3 or SOCB49H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC26H3 - Sociology of Urban Cultural Policies

A popular civic strategy in transforming post-industrial cities has been the deployment of culture and the arts as tools for urban regeneration. In this course, we analyze culture-led development both as political economy and as policy discourse. Topics include the creative city; spectacular consumption spaces; the re-use of historic buildings; cultural clustering and gentrification; eventful cities; and urban 'scenes'.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [SOCB58H3 and enrolment in the Minor in Culture, Creativity, and Cities] or [CITA01H3/(CITB02H3) and enrolment in the Major/Major Co-op in City Studies]
Recommended Preparation: SOCB44H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC27H3 - Sociology of Suburbs and Suburbanization

This course examines the political economy of suburban development, the myth and reality of suburbanism as a way of life, the working class suburb, the increasing diversity of suburban communities, suburbia and social exclusion, and the growth of contemporary suburban forms such as gated communities and lifestyle shopping malls.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [SOCB58H3 and enrolment in the Minor in Culture, Creativity, and Cities] or [CITA01H3/(CITB02H3) and enrolment in the Major/Major Co-op in City Studies]
Recommended Preparation: SOCB22H3 or SOCB49H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC29H3 - Family and Gender in the Middle East

In this course, students read and evaluate recent research related to the sociology of families and gender in the modern Middle East. The course explores the diversity of family forms and processes across time and space in this region, where kinship structures have in the past been characterized as static and uniformly patriarchal. Topics covered include marriage, the life course, family nucleation, the work-family nexus, divorce, family violence, and masculinities.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [8.0 credits, including WSTB05H3 and enrolment in the Major in Women's and Gender Studies]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC30H3 - Criminal Behaviour

The young figure prominently in people's views about, and fears of, crime. This course examines definitions of crime, how crime problems are constructed and measured. It looks at schools and the street as sites of criminal behaviour, and considers how we often react to crime in the form of moral panics. This course has been designated an Applied Writing Skills Course.

Prerequisite: SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC31H3 - Practicum in Quantitative Research Methods

This course provides students with hands-on experience conducting quantitative research. Each student will design and carry out a research project using secondary data. Students will select their own research questions, review the relevant sociological literature, develop a research design, conduct statistical analyses and write up and present their findings.
This course has been designated an Applied Writing Skills Course.

Prerequisite: [10.0 credits, including [(SOCA01H3) and (SOCA02H3)] or SOCA03Y3] and SOCB05H3 and [SOCB35H3 or (SOCB06H3)]] and a cumulative GPA of at least 2.3
Enrolment Limits: 15
Breadth Requirements: Quantitative Reasoning

SOCC34H3 - Migrations & Transnationalisms

Examines the relationship between contemporary modes of international migration and the formation of transnational social relations and social formations. Considers the impact of trans-nationalisms on families, communities, nation-states, etc.
This course has been designated an Applied Writing Skills Course.

Prerequisite: [SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3, IDSB01H3]] or [SOCB60H3 and an additional 8.0 credits and enrolment in the Minor in Critical Migration Studies]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC37H3 - Environment and Society

This course links studies in the classical sociology of resources and territory (as in the works of Harold Innis, S.D. Clark, and the Chicago School), with modern topics in ecology and environmentalism. The course will include empirical research, and theoretical issues, in the relationship of various social systems to their natural environments.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [any 8.0 credits and enrolment in the Major/Major Co-op in Public Policy]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC38H3 - Gender and Education

An examination of a number of key issues in the sociology of education, focusing particularly upon gender and higher education.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [8.0 credits, including WSTB05H3 and enrolment in the Major in Women's and Gender Studies]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC40H3 - Contemporary Sociological Theory

This course surveys key topics in contemporary sociological theory. The development of sociological theory from the end of World War II to the late 1960's. Special attention is devoted to the perspectives of Functionalism, Conflict Theory and Symbolic Interactionism.
This course has been designated an Applied Writing Skills Course.

Prerequisite: SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Exclusion: (SOCC05Y3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC44H3 - Media and Society

Provides an introduction to the emergence, organization and regulation of various media forms; social determinants and effects of media content; responses of media audiences; and other contemporary media issues.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [SOCB58H3 and enrolment in the Minor in Culture, Creativity, and Cities]
Exclusion: (SOCB56H3), (SOCB57H3)
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC45H3 - Youth and Society

This course examines youth as a social category, a critical stage in the life course. Topics to be covered include: Youth and music, health, work, and politics.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC46H3 - Special Topics in Sociology of Law

The course covers various approaches to the study of law in society. Topics covered may include the interaction between law, legal, non-legal institutions and social factors, the social development of legal institutions, forms of social control, legal regulation, the interaction between legal cultures, the social construction of legal issues, legal profession, and the relation between law and social change.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC47H3 - Creative Industries

An introduction to organizational and economic sociology through the lens of creative industries. Students will be introduced to different theoretical paradigms in the study of organizations, industries, and fields. The course is divided into four major modules on creative industries: inequality and occupational careers; organizational structure and decision making under conditions of uncertainty; market and field-level effects; and distribution and promotion.
This course has been designated an Applied Writing Skills Course.

Prerequisite: SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students in the Specialist and Major programs in Sociology and the Minor in Culture, Creativity, and Cities.

SOCC49H3 - Indigenous Health

This course will examine the healh and well-being of Indigenous peoples, given historic and contemporary issues. A critical examination of the social determinants of health, including the cultural, socioeconomic and political landscape, as well as the legacy of colonialism, will be emphasized. An overview of methodologies and ethical issues working with Indigenous communities in health research and developing programs and policies will be provided. The focus will be on the Canadian context, but students will be exposed to the issues of Indigenous peoples worldwide.

Same as HLTC49H3

Prerequisite: HLTB41H3 or [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3 , SOCB42H3, SOCB43H3, SOCB47H3]]
Exclusion: HLTC49H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

SOCC51H3 - Special Topics in Health and Society

An examination of a current topic relevant to the study of health and society. The specific topic will vary from year to year.

Same as HLTC51H3

Prerequisite: HLTB41H3 or [[SOCB05H3 or SOCB35H3] and [0.5 from SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]]
Exclusion: HLTC51H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist and Major programs in Sociology.

SOCC52H3 - International Migration and Immigrant Incorporation

The course provides an overview of competing theories and concepts in the field of international migration and immigrant incorporation. Discussion puts the Canadian case in comparative perspective. Topics include global migration flows, refugeeship, citizenship and non-citizenship, economic incorporation, children of immigrants, and social exclusion.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [SOCB60H3 and an additional 8.0 credits and enrolment in the Minor in Critical Migration Studies]
Exclusion: (SOCB52H3) and SOC210Y
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC54H3 - Special Topics in Sociology of Culture

Sociological analysis of the role of culture in societies is offered under this course. Topics may include the study of material cultures such as works of art, religious symbols, or styles of clothing, or non-material cultures such as the values, norms, rituals, and beliefs that orient action and social life.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: Please see the Sociology Department website at http://www.utsc.utoronto.ca/~socsci/ for a listing of the course topics for current and upcoming semesters.

SOCC55H3 - Special Topics in Race and Ethnicity

This course addresses key concepts and debates in the research on race and ethnicity. Topics covered may include historical and global approaches to: assimilation, ethnic relations, intersectionality, racialization, and scientific racism.

Prerequisite: [[SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [SOCB60H3 and an additional 8.0 credits and enrolment in the Minor in Critical Migration Studies]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: Please see the Sociology Department website at http://www.utsc.utoronto.ca/~socsci/ for a listing of the course topics for current and upcoming semesters.

SOCC57H3 - Gender, Race, and Class in Economic Life

This course examines how the three-axis of social stratification and inequality – race, gender, and class – shape economic activity in different settings – from labour markets to financial markets to consumer markets to dating markets to household economies to intimate economies to informal and illegal economies to markets of human goods.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC58H3 - Global Transformations: Politics, Economy and Society

A sociological examination of contemporary global transformations including changing social, economic, and political conditions. Topics examined may include the shifting nature of state-society relations in a global context; the emergence of globally-integrated production, trade and financial systems; and the dynamics of local and transnational movements for global social change.
This course has been designated as a Writing Skills course.

Prerequisite: SOCB05H3 and [1.0 credit from the following: SOCB42H3, SOCB43H3, SOCB47H3]
Exclusion: SOC236H
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC59H3 - Special Topics in Social Inequality

Sociological analyses of stratification processes and the production of social inequality with a focus on economy and politics. Topics covered may include work and labour markets, the state and political processes. Attention is given to grassroots mobilization, social movements, and contestatory politics.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences
Note: See the Sociology Department website for a listing of the course topics for current and upcoming semesters.

SOCC61H3 - The Sociology of the Truth and Reconciliation Commission

The Truth and Reconciliation Commission of Canada is an historic process that now directs a core area of Canadian politics and governance. This course examines the institutional and legal history, precedents, contradictions and consequences of the commission from a sociological perspective.

Prerequisite: [SOCB05H3 or SOCB35H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCC70H3 - Models of the Social World

This course examines how quantitative models can be used to understand the social world with a focus on social inequality and social change. Students will learn the fundamentals of modern computational techniques and data analysis, including how to effectively communicate findings using narratives and visualizations. Topics covered include data wrangling, graphic design, regression analysis, interactive modelling, and categorical data analysis. Methods will be taught using real-world examples in sociology with an emphasis on understanding key concepts rather than mathematical formulas.

Prerequisite: SOCB35H3
Enrolment Limits: 60
Breadth Requirements: Social & Behavioural Sciences

SOCD01H3 - Advanced Seminar in Culture and Cities

This course offers an in-depth examination of selected topics in Culture and Cities. Check the department website for more details. This course has been designated a Research Skills Course

Prerequisite: [10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB44H3, SOCB47H3, SOCB58H3]] or [10.0 credits including SOCB58H3 and enrolment in the Minor in Culture, Creativity, and Cities]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist and Major programs in Sociology, and the Minor program in Culture, Creativity, and Cities.

SOCD05H3 - Advanced Seminar in Criminology and Sociology of Law

This course offers an in-depth examination of selected topics in Criminology and Sociology of Law. Check the department website for more details. This course has been designated a Research Skills Course

Prerequisite: 10.0 credits and SOCB05H3 and [1.0 credit from the following: [SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3, SOCB50H3, (SOCB51H3)]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist and Major programs in Sociology. Additional students will be admitted as space permits.

SOCD10H3 - Advanced Seminar in Gender and Family

This course offers an in-depth examination of selected topics in Gender and Family. Check the department website for details at: www.utsc.utoronto.ca/sociology/programs.

Prerequisite: [[10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3, (SOCC39H3)]] or [8.0 credits, including WSTB05H3 and enrolment in the Major in Women's and Gender Studies]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist and Major programs in Sociology, and Major in Women's and Gender Studies. Additional students will be admitted as space permits.

SOCD11H3 - Program and Policy Evaluation

This course provides an introduction to the field of program and policy evaluation. Evaluation plays an important role in evidence based decision making in all aspects of society. Students will gain insight into the theoretical, methodological, practical, and ethical aspects of evaluation across different settings. The relative strengths and weaknesses of various designs used in applied social research to examine programs and policies will be covered.

Same as HLTD11H3

Prerequisite: [[STAB22H3 or STAB23H3] and [0.5 credit from HLTC42H3, HLTC43H3, HLTC44H3] and [an additional 1.0 credit at the C-level in HLT courses from one of the Major/Major Co-op programs in Health Studies]] or [10.0 credits and [SOCB05H3 and SOCB35H3] and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]]
Exclusion: HLTD11H3
Enrolment Limits: 10
Breadth Requirements: Social & Behavioural Sciences

SOCD12H3 - Sociology of Art

An examination of sociological approaches to the study of visual art. Topics include the social arrangements and institutional processes involved in producing, consecrating, distributing, and marketing art as well as artistic consumption practices.

Prerequisite: [10.0 credits including: SOCB05H3, and [0.5 credit from the following: SOCB58H3, SOCC44H3, or SOCC47H3] and [0.5 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3, or SOCB44H3]] or [any 10.0 credits including: SOCB58H3 and enrolment in the Minor program in Culture, Creativity and Cities].
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

SOCD15H3 - Advanced Seminar in Critical Migration Studies

This course offers an in-depth examination of selected topics in Migration Studies. Students will be required to conduct independent research based on primary and/or secondary data sources. Check the department website for details at: www.utsc.utoronto.ca/sociology/programs.

Prerequisite: [10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]] or [SOCB60H3 and enrolment in the Minor in Critical Migration Studies]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given first to students enrolled in the Minor in Critical Migration Studies, then to students in the Specialist and Major programs in Sociology. Additional students will be admitted as space permits.

SOCD20H3 - Advanced Seminar: Social Change and Gender Relations in Chinese Societies

This seminar examines the transformation and perpetuation of gender relations in contemporary Chinese societies. It pays specific attention to gender politics at the micro level and structural changes at the macro level through in-depth readings and research.
Same as GASD20H3

Prerequisite: [SOCB05H3 and one C-level course in SOC] OR [GASA01H3 and GASA02H3 and one C-level course from the options in requirement #2 of the Specialist or Major programs in Global Asia Studies]
Exclusion: GASD20H3
Recommended Preparation: GASB20H3 and GASC20H3
Enrolment Limits: 20

SOCD21H3 - Immigrant Scarborough

This course will teach students how to conduct in-depth, community-based research on the social, political, cultural and economic lives of immigrants. Students will learn how to conduct qualitative research including participant observation, semi-structured interviews and focus groups. Students will also gain valuable experience linking hands-on research to theoretical debates about migration, transnationalism and multicultural communities. Check the department website for details at: www.utsc.utoronto.ca/sociology/programs.

Prerequisite: [10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3, (SOCC39H3)]] or [SOCB60H3 and enrolment in the Minor in Critical Migration Studies]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: For a listing of the course topics for current and upcoming semesters check the Department's website at http://www.utsc.utoronto.ca/sociology/

SOCD25H3 - Advanced Seminar in Economy, Politics and Society

This course offers an in-depth examination of selected topics in Economy, Politics and Society. Check the department website for more details. This course has been designated a Research Skills Course

Prerequisite: 10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Specialist and Major programs in Sociology. Additional students will be admitted as space permits.

SOCD40H3 - Supervised Independent Research

Independent research using field methods, survey analysis, library or archival research; regular supervision of data collection and analysis; final written research report. Intended for upper level students with well above average performance in sociology and whose interests or needs are not met by other sociology courses being offered.

Prerequisite: 15.0 credits, including: [SOCA03Y3 or (SOCA01H3) and (SOCA02H3)] and [SOCB35H3 or (SOCB06H3)] and [[SOCB05H3 or [(SOCB40H3) and (SOCB41H3)]] and SOCB42H3 and SOCB43H3; and permission of the instructor and the Sociology Supervisor of Studies
Exclusion: SOC390Y, SOC391H, SOC392H

SOCD41H3 - Supervised Independent Research

Independent research using field methods, survey analysis, library or archival research; regular supervision of data collection and analysis; final written research report. Intended for upper level students with well above average performance in sociology and whose interests or needs are not met by other sociology courses being offered.

Prerequisite: 15.0 credits, including [SOCA03Y3 or [(SOCA01H3) and (SOCA02H3)]] and [SOCB35H3 or (SOCB06H3)] and [[SOCB05H3 or [(SOCB40H3) and (SOCB41H3)]] and SOCB42H3 and SOCB43H3; and permission of the instructor and the Sociology Supervisor of Studies.
Exclusion: SOC390Y, SOC391H, SOC392H

SOCD42H3 - Advanced Seminar in Sociological Theory

This course offers an in depth exploration of significant topics in contemporary and/or sociological theory. Check the department website for details at: www.utsc.utoronto.ca/sociology/programs.

Prerequisite: 10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Note: For a listing of the course topics for current and upcoming semesters check the Department's website at http://www.utsc.utoronto.ca/sociology/

SOCD44H3 - Advanced Seminar on Issues in Contemporary Sociology

Exploration of current debates and controversies surrounding recent scholarly developments in Sociology. Check the department website for details at: www.utsc.utoronto.ca/sociology/programs.

Prerequisite: 10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Note: For a listing of the course topics for current and upcoming semesters check the Department's website at http://www.utsc.utoronto.ca/sociology/

SOCD50H3 - Research Seminar: Realizing the Sociological Imagination

This course presents students with the opportunity to integrate and apply their sociological knowledge and skills through conducting independent research. In a step-by-step process, each student will design and conduct an original research study. The course is especially suited for those students interested in pursuing graduate studies or professional careers involving research skills.

Prerequisite: 12.0 credits, including [SOCA03Y3 or [(SOCA01H3) and (SOCA02H3)]] and SOCB05H3 and [SOCB35H3 or (SOCB06H3)] and [SOCC23H3 or SOCC31H3] and a cumulative GPA of at least 2.7
Enrolment Limits: 15
Breadth Requirements: Social & Behavioural Sciences

SOCD51H3 - Capstone Seminar in Culture, Creativity, and Cities

This course provides a hands-on learning experience with data collection, analysis, and dissemination on topics discussed in the Minor in Culture, Creativity, and Cities. It involves substantial group and individual-based learning, and may cover topics as diverse as the role of cultural fairs and festivals in the city of Toronto, the efficacy of arts organizations, current trends in local cultural labour markets, artistic markets inside and outside of the downtown core, food culture, and analysis of governmental datasets on arts participation in the city.

Prerequisite: 10.0 credits and SOCB05H3 and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB44H3, SOCB47H3, SOCB58H3]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Minor in Culture, Creativity, and Cities followed by Specialist and Major programs in Sociology. Additional students will be admitted as space permits.

SOCD52H3 - Sociology of Books

A sociological examination of the creation, production, dissemination, and reception of books.

Prerequisite: 10.0 credits including SOCB05H3, and [1.0 credit from the following: SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3, SOCB44H3, SOCB58H3] or [10.0 credits including SOCB58H3 and enrolment in the Minor in Culture, Creativity and Cities]
Exclusion: [SOCD44H3 if taken in 2014-2015 or 2015-2016 or 2016-2017]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Minor in Culture, Creativity, and Cities followed by Specialist and Major programs in Sociology. Additional students will be admitted as space permits.

SOCD55H3 - Field School in Critical Migration Studies

This intensive international field school course examines themes at the intersection of migration, labour and politics and offers students an opportunity to develop their qualitative research skills through immersion in a natural setting. The course will provide students hands-on experience linking theories and knowledge learned in the classroom to direct observations about the social world.

Prerequisite: 10.0 credits, including SOCB05H3 and 1.0 credit from the following: [SOCB30H3, SOCB42H3, SOCB43H3, SOCB47H3]
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences
Note: Priority will be given to students enrolled in the Major or Specialist programs in Sociology and the Minor program in Critical Migration Studies. Additional students will be admitted as space permits.

Statistics

Faculty List

- A. Aslemand, B.Sc., M.Sc., Ph.D. (Toronto), CLTA Assistant Professor, Teaching Stream
- K. Butler, B.Sc. (Birmingham), M.Sc., Ph.D. (Simon Fraser), Lecturer
- S. Damouras, B.Sc. (Athens Univ. of Econ. and Bus.), M.Sc. (Warwick), Ph.D. (Carnegie Mellon), Associate Professor, Teaching Stream
- M. Evans, B.Sc. (Western Ontario), M.Sc., Ph.D. (Toronto), Professor
- S. Kang, B.Sc., M.Sc. (Chonnam National University, South Korea), M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- D. Roy, B.Sc., M.Eng., Ph.D. (MIT), Assistant Professor
- M. Samarakoon, B.Sc. (Colombo), M.Sc. (Alberta), Ph.D. (Toronto), Associate Professor, Teaching Stream
- Q. Sun, B.Sc. (Science & Technology, China), Ph.D. (North Carolina), Assistant Professor
- B. Virag, B.A. (Harvard), M.A., Ph.D. (Berkeley), Professor
- L. Wang, B.Sc. (Peking), Ph.D. (Washington), Assistant Professor
- L. Wong, B.Sc., M.Phil. (Hong Kong), Ph.D. (Washington), Assistant Professor

Associate Chair: M. Evans (416-287-7274) Email: mevans@utstat.utoronto.ca

Probability and Statistics have developed over a period of several hundred years as attempts to quantify uncertainty. With its origins in modelling games of chance, probability theory has become a sophisticated mathematical discipline with applications in such fields as demography, genetics and physics.

Statistics is concerned with the proper collection and analysis of data, both to reduce uncertainty and to provide for its assessment via probability. Applications range from pre-election polling to the design and analysis of experiments to determine the relative efficacies of different vaccines.

STAB22H3 and STAB27H3 serve as a non-technical introduction to statistics. These courses are designed for students from disciplines where statistical methods are applied. STAB52H3 is a mathematical treatment of probability. STAB57H3 is an introduction to the methods and theory of statistical inference. The C-level courses build on the introductory material to provide a deeper understanding of the statistical methodology and of its practical implementation.

Admission to Statistics Programs
Beginning in 2018-19 there are admissions criteria for the Major/Major (Co-op) Program in Statistics. Details and information on how to apply for admission to these programs are found in the program descriptions below.

Combining Statistics and Economics Programs
Students who wish to combine studies in statistics and economics should consult the Economics for Management Studies section of the *Calendar* for information on the economics programs and restrictions on the order in which courses must be taken.

Double Degrees: BBA/BSc
The Department of Computer and Mathematical Sciences, in partnership with the Department of Management, offers the following Double Degree programs:

- Double Degree: BBA, Specialist program in Management and Finance/Honours BSc, Specialist program in Statistics, Quantitative Finance Stream
- Double Degree: BBA, Specialist (Co-op) program in Management and Finance/Honours BSc, Specialist (Co-op) program in Statistics, Quantitative Finance Stream

The Double Degree programs create an accelerated pathway for students who would otherwise have to complete two separate Specialist programs. They explicitly focus on finance and quantitative methods, providing students with a thorough education in both the business and the quantitative aspects of the financial industry. The Double Degree Programs take advantage of existing synergies to allow students to complete both undergraduate programs and degrees within five years without compromising their learning experience. Students will complete a total of 25.0 credits and, for those enrolled in the Double Degree (Specialist Co-op programs), students must also complete three mandatory Co-op work terms. For more information, including Admission and Program requirements, see the Double Degree Programs section of the *Calendar*.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Statistics Programs

DOUBLE DEGREE: BBA, SPECIALIST PROGRAM IN MANAGEMENT AND FINANCE / HONOURS BSc, SPECIALIST PROGRAM IN STATISTICS, QUANTITATIVE FINANCE STREAM

Academic Directors:
S. Ahmed Email: mgmtss@utsc.utoronto.ca (BBA)
S. Damouras Email: sdamouras@utsc.utoronto.ca (BSc)

This Double Degree program combines the Specialist Program in Management and Finance and the Specialist Program in Statistics, Quantitative Finance stream. Students completing the Double Degree program will qualify to graduate with two-degree designations – the Bachelor of Business Administration (BBA) and the Honours Bachelor of Science (BSc), assuming all other degree criteria are met.

Enrolment Requirements

Enrolment in this Double Degree program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English, Grade 12 Advanced Functions, and Grade 12 Calculus & Vectors. Applicants must also submit a Supplementary Application Form.

Course Guidelines for Students Admitted to the Double Degree Program Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA22H3, MATA30H3, MATA36H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA35H3.

2. Students already pursuing a BBA program and degree may apply to enter the Double Degree program. The application can be made before the end of the Winter semester and/or before the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request. Students considering switching to the Double Degree program should consult with the program supervisors as soon as possible.

The minimum Cumulative Grade Point Average (CGPA) for admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed at least 4.5 credits (none of which can be designated as CR/NCR), including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3, MATA22H3, MATA30H3, and MATA36H3. Students who have taken the sequence [MATA32H3 and MATA33H3] instead of [MATA30H3 and MATA36H3] can still apply to the Double Degree program if they are taking or plan to take MATA36H3 at the time of application and could receive admission conditional on their grade in MATA36H3 being above a threshold to be specified each year. Note that MATA36H3 will be treated as an Extra (EXT) course in this case.

Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be admitted to the Double Degree program. For those who apply with more than 4.5 credits, their CGPA at the time of application will be calculated with more weight assigned to the required courses listed under the 4.5 credits.

CGPA Requirement to Remain in the Double Degree (Specialist Programs)
In order to remain in the Double Degree, students must maintain a CGPA of 2.0 or higher after having attempted at least 4.0 credits. Students whose CGPA falls below 2.1 (but not below 2.0) will have the opportunity to move to either the non Co-op BBA Specialist Program in Management and Finance, or the non Co-op BSc Specialist Program in Statistics, Quantitative Finance stream. If they choose to stay in the Double Degree program and their CGPA falls below 2.0, they will be removed from the Double Degree program. Students removed from the program for this reason may request re-instatement if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.0. This opportunity will be provided only once.

Program Requirements
The Double Degree program requires the completion of 25.0 credits. 22.0 credits are core program requirements as listed below, and 3.0 further credits are required to complete degree requirements.

1. Communications requirement (0.5 credit)
MGTA35H3 Management Communications

2. Management requirements (5.5 credits)
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGHC02H3 Management Skills

MGMA01H3 Principles of Marketing
MGMB01H3 Marketing Management
MGOC10H3 Analysis for Decision-Making
MGOC20H3 Operations Management: A Mathematical Approach
MGTA05H3 Foundations of Business Management or [(MGTA01H3) and (MGTA02H3)]

3. Science requirements (9.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
STAB52H3 An Introduction to Probability
STAB57H3 An Introduction to Statistics
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis
STAD37H3 Multivariate Analysis
STAD57H3 Time Series Analysis

4. Economics requirements (2.0 credits)
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach

5. Finance requirements (3.0 credits)
MGFB10H3 Principles of Finance
MGFC10H3 Intermediate Finance
[MGFC30H3 Introduction to Derivatives Markets or STAB41H3 Financial Derivatives]
MGFD10H3 Investments
STAC70H3 Statistics and Finance I
STAD70H3 Statistics and Finance II

6. At least four courses (2.0 credits) from:
MGEC71H3 Money and Banking
MGFC20H3 Personal Financial Management
MGFC50H3 International Financial Management
MGFC60H3 Financial Statement Analysis & Security Valuation
MGFD15H3 Special Topics in Finance: Private Equity
MGFD30H3 Risk Management
MGFD40H3 Investor Psychology and Behavioural Finance
MGFD50H3 Mergers and Acquisitions: Theory and Practice
MGFD60H3 Financial Modeling and Trading Strategies
MGFD70H3 Advanced Financial Management

NOTE: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of the Calendar.

DOUBLE DEGREE: BBA, SPECIALIST (CO-OPERATIVE) PROGRAM IN MANAGEMENT AND FINANCE / HONOURS BSc, SPECIALIST (CO-OPERATIVE) PROGRAM IN STATISTICS, QUANTITATIVE FINANCE STREAM

Academic Directors:
S. Ahmed Email: mgmtss@utsc.utoronto.ca (BBA)
S. Damouras Email: sdamouras@utsc.utoronto.ca (BSc)

Program Director: C. Arsenault E-mail: mgmtcoop@utsc.utoronto.ca

The Double Degree program combines the Specialist (Co-operative) Program in Management and Finance and the Specialist (Co-operative) Program in Statistics, Quantitative Finance stream. Students completing the Double Degree program will qualify to graduate with two degree designations – the Bachelor of Business Administration (BAA) and the Honours Bachelor of Science (BSc), assuming all other degree criteria are met.

The Double Degree program is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in public and private enterprises. Depending on their needs and abilities, students work in areas such as finance, insurance, data analytics, accounting, consulting, business intelligence, marketing, policy, strategic planning and entrepreneurship. The Double Degree program will equip students with a comprehensive understanding of financial markets, and develop the business and quantitative skills required to function in them.

The Double Degree program operates on a trimester schedule, featuring three terms (Fall, Winter and Summer) in each Calendar year. Students work or study in all three terms for five years, or until graduation requirements are met. It requires 11 four-month terms of study and 3 four-month work terms.

Enrolment Requirements

Enrolment in the Double Degree program is limited.

1. Students applying directly from high school are admitted on the basis of academic performance. They must have completed Grade 12 English, Grade 12 Advanced Functions, and Grade 12 Calculus & Vectors. Applicants must also submit a Supplementary Application Form.

Course Guidelines for Students Admitted to Double Degree Program Directly from High School
Students must complete the following courses in their first year of study: MGTA05H3, MGEA02H3, MGEA06H3, MATA22H3, MATA30H3, MATA36H3, MGAB01H3, MGAB02H3, MGMA01H3 and MGTA36H3.

2. Students already pursuing a BBA program and degree may apply to enter this Double Degree program. The application can be made before the end of the Winter semester and/or before the end of the Summer semester. Application for admission will be considered only for the round during which the student has made the Subject POSt request. Students considering switching to the Double Degree program should consult with the program supervisors as soon as possible.

The minimum Cumulative Grade Point Average (CGPA) for Program admission is calculated for each application period, and is based on University of Toronto courses only. Decisions are made when all grades have been received.

Students must have completed at least 4.5 credits (none of which can be designated as CR/NCR), including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3 or MGTA36H3, MATA22H3, MATA30H3, and MATA36H3. Students who have taken the sequence [MATA32H3 and MATA33H3] instead of [MATA30H3 and MATA36H3] can still apply to the Double Degree Program if they are taking or plan to take MATA36H3 at the time of application and could receive admission conditional on their grade in MATA36H3 being above a threshold to be specified each year. Note that MATA36H3 will be treated as an Extra (EXT) course in this case.

Students may apply until they have completed up to 10.0 credits. Students who have completed more than 10.0 credits will not be able to apply to the Double Degree Program. For those who apply with more than 4.5 credits, their CGPA at the time of application will be calculated with more weight assigned to the required courses listed under the 4.5 credits.

Applicants must submit a resume and covering letter to the Management Co-op Office during the limited Subject POSt request period outlined on the Office of the Registrar website. For information on what to include in your resume and covering letter, visit the Management Co-op website. An interview may also be required.

CGPA Requirement to Remain in the Double Degree Co-op Program
Students must maintain a CGPA of 2.5 or higher. Students whose CGPA falls below 2.5 will be placed on probation. Students on probation will be reinstated to the Double Degree program if they complete at least 2.0 credits (none of which can be designated as CR/NCR) in the following session and raise their CGPA to at least 2.5. Students who cannot get out of probation in two consecutive sessions, or whose CGPA falls below 2.3, will be removed from the Double Degree Co-op Program. Students removed from the Double Degree (Specialist Co-op Programs) can pursue the Double Degree (Specialist Programs), or one of its non Co-op constituent programs (i.e., the BBA Specialist Program in Management and Finance, or the BSc Specialist Program in Statistics, Quantitative Finance stream).

Program Requirements
The Double Degree program requires the completion of 25.0 credits. 22.0 credits are core program requirements as listed below, and 3.0 further credits are required to complete degree requirements.

1. Communications requirement (0.5 credit)
MGTA36H3 Management Communications for Co-op

2. Management requirements (5.5 credits)
MGAB01H3 Introductory Financial Accounting I
MGAB02H3 Introductory Financial Accounting II
MGAB03H3 Introductory Management Accounting
[MGHB02H3 Managing People and Groups in Organizations
MGHB12H3 Human Resource Management
MGHC02H3 Management Skills
MGMA01H3 Principles of Marketing
MGMB01H3 Marketing Management
MGOC10H3 Analysis for Decision-Making
MGOC20H3 Operations Management: A Mathematical Approach
MGTA05H3 Foundations of Business Management or [(MGTA01H3) and (MGTA02H3)]

3. Science requirements (9.0 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
MATA22H3 Linear Algebra I for Mathematical Sciences
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
MATB61H3 Linear Programming and Optimization
MATC46H3 Differential Equations II
STAB52H3 An Introduction to Probability
STAB57H3 An Introduction to Statistics
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis
STAD37H3 Multivariate Analysis
STAD57H3 Time Series Analysis

4. Economics requirements (2.0 credits)
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach
MGEA06H3 Introduction to Macroeconomics: A Mathematical Approach
MGEB02H3 Price Theory: A Mathematical Approach
MGEB06H3 Macroeconomic Theory and Policy: A Mathematical Approach

5. Finance requirements (3.0 credits)
MGFB10H3 Principles of Finance
MGFC10H3 Intermediate Finance
[MGFC30H3 Introduction to Derivatives Markets or STAB41H3 Financial Derivatives]
MGFD10H3 Investments
STAC70H3 Statistics and Finance I
STAD70H3 Statistics and Finance II

6. At least four courses (2.0 credits) from:
MGEC71H3 Money and Banking
MGFC20H3 Personal Financial Management
MGFC50H3 International Financial Management
MGFC60H3 Financial Statement Analysis & Security Valuation
MGFD15H3 Special Topics in Finance: Private Equity
MGFD30H3 Risk Management
MGFD40H3 Investor Psychology and Behavioural Finance
MGFD50H3 Mergers and Acquisitions: Theory and Practice
MGFD60H3 Financial Modeling and Trading Strategies
MGFD70H3 Advanced Financial Management

NOTE: In selecting options and electives, students should refer to the guidelines for program breadth and depth found in section 6A.2 (Degree Requirements) of the Calendar.

Co-op Work Term Requirements

All Double Degree program Co-op students must take MGTA36H3 prior to commencement of their first work term. Students are advised to consult regularly with the Academic Supervisors, or the Program Director, if they have questions regarding course selection and scheduling. It is however the students' individual responsibility to ensure that they have completed the correct courses to make them eligible for each work term and that they have correctly completed program and degree requirements for graduation.

Students who apply after the first year and are successful in receiving a June offer will be expected to complete a Co-op Work Term Preparation Course (WTPC) beginning in the third week of June, and continuing throughout the summer.

To compete for a work term a student must maintain a 2.5 CGPA, and must have completed:

1. For the first work term:
a) 7.0 credits, including: MGTA05H3, MGEA02H3, MGEA06H3, MGAB01H3, MGAB02H3, MGTA35H3 or MGTA36H3, MATA22H3, and [MATA32H3, and MATA33H3] or [MATA30H3 and MATA36H3].

b) The Management Co-op Work Term Preparation Course (WTPC): COPD07Y3.

2. For the second work term: 9.0 credits.

3. For the third work term: 11.0 credits.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 of this *Calendar*.

SPECIALIST PROGRAM IN STATISTICS (SCIENCE)

Supervisor of Studies*:* S. Damouras Email: sotirios.damouras@utoronto.ca (416-287-7269)

Program Objectives
This program provides training in the discipline of Statistics. Students are given a thorough grounding in the theory underlying statistical reasoning and learn the methodologies associated with current applications. A full set of courses on the theory and methodology of the discipline represents the core of the program. In addition, students select one of two streams, each of which provides immediately useful, job-related skills. The program also prepares students for further study in Statistics and related fields.

The Quantitative Finance Stream focuses on teaching the computational, mathematical and statistical techniques associated with modern-day finance. Students acquire a thorough understanding of the mathematical models that underlie financial modeling and the ability to implement these models in practical settings. This stream prepares students to work as quantitative analysts in the financial industry, and for further study in Quantitative Finance.

The Statistical Machine Learning and Data Science Stream focuses on applications of statistical theory and concepts to the discovery (or “learning”) of patterns in data. This field is a recent development in statistics with wide applications in science and technology including computer vision, image understanding, natural language processing, medical diagnosis, and stock market analysis. This stream prepares students for direct employment in industry and government, and further study in Statistical Machine Learning.

Enrolment Requirements

Enrolment in the Specialist in Statistics (all streams) is limited. Students may apply to enter the program after completing 4.0 credits, and must have passed all of the core A-level courses in the program (CSCA08H3, CSCA48H3, MATA22H3, MATA30H3/MATA31H3, and MATA36H3/ MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

Students who are not admitted as above may apply after completing at least 7.5 credits, including the core A-level courses listed above as well as MATB24H3, MATB41H3, MATB61H3, STAB52H3, and STAB57H3. Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

Program Requirements
To complete the program, a student must meet the course requirements described below.

The first-year requirements of the two streams are almost identical, except that the Quantitative Finance stream requires MGEA02H3 while the Statistical Machine Learning and Data Science stream requires [CSCA67H3 or MATA67H3]; these courses need not be taken in the first year. In the second year, the two streams have considerable overlap. This structure makes it relatively easy for students to switch between the two streams as their interests in Statistics become better defined.

Note: There are courses on the St. George campus that can be taken to satisfy some of the requirements of the program. STAB52H3, STAB57H3 and STAC67H3, however, must be taken at the University of Toronto Scarborough; no substitutes are permitted without permission of the program supervisor.

Core (7.5 credits)

1. Writing Requirement (0.5 credit) (*)
0.5 credit from the following: ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3, ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB09H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), ACMA01H3, (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.
(*) It is recommended that this requirement be satisfied by the end of the second year.

2. A-level courses (2.5 credits)
CSCA08H3 Introduction to Computer Science I
CSCA48H3 Introduction to Computer Science II
MATA22H3 Linear Algebra I or Mathematical Sciences
and
0.5 credit from the following:
MATA31H3* Calculus I for Mathematical Sciences
MATA30H3 Calculus I for Physical Sciences
and
0.5 credit from the following:
MATA37H3* Calculus II for Mathematical Sciences

MATA36H3 Calculus II for Physical Sciences
(*) MATA31H3 and MATA37H3 are recommended; the latter requires the former.

3. B-level courses (2.5 credits)
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB61H3 Linear Programming and Optimization
STAB52H3 Introduction to Probability
STAB57H3 Introduction to Statistics

4. C-level courses (1.5 credits)
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
STAC62H3 Stochastic Processes
STAC67H3 Regression Analysis

5. D-level courses (0.5 credit)
STAD37H3 Multivariate Analysis

A. Quantitative Finance Stream
This stream requires a total of 26 courses (13.0 credits). In addition to the core requirements, 11 other courses (5.5 credits) must be taken satisfying all of the following requirements:

6. Additional A-level courses (0.5 credit)
MGEA02H3 Introduction to Microeconomics: A Mathematical Approach

7. Additional B-level courses (2.0 credits)
ACTB40H3 Fundamentals of Investment and Credit
MATB42H3 Techniques of Calculus of Several Variables II
MATB44H3 Differential Equations I
STAB41H3 Financial Derivatives

8. Additional Upper-Level courses (3.0 credits)
MATC46H3 Differential Equations II
STAC70H3 Statistics and Finance I
STAD57H3 Time Series Analysis
STAD70H3 Statistics and Finance II
and
1.0 credit from the following:
CSCC11H3 Introduction to Machine Learning and Data Mining
MATC37H3 Introduction to Real Analysis
STAC51H3 Categorical Data Analysis
STAC58H3 Statistical Inference
STAC63H3 Probability Models
STAD68H3 Advanced Machine Learning and Data Mining
STAD94H3 Statistics Project
APM462H1 Nonlinear Optimization
Note: Students enrolled in this stream should also consider taking complementary courses in economics and finance (e.g. MGEA06H3, MGEB02H3, MGEB06H3, MGEC72H3), or a Minor in Economics for Management Studies.

B. Statistical Machine Learning and Data Science Stream
This stream requires a total of 26 courses (13.0 credits). In addition to the core requirements, 11 other courses (5.5 credits) must be taken satisfying all of the following requirements:

6. Additional A-level courses (0.5 credit)
[CSCA67H3 or MATA67H3 Discrete Mathematics]

7. Additional B-level courses (2.0 credits)
CSCB07H3 Software Design
CSCB20H3 Introduction to Databases and Web Applications
CSCB36H3 Introduction to the Theory of Computation
CSCB63H3 Design and Analysis of Data Structures

8. Additional Upper Level courses (3.0 credits)
CSCC11H3 Introduction to Machine Learning and Data Mining
STAC58H3 Statistical Inference
[STAD68H3 Advanced Machine Learning and Data Mining or STAD78H3 Machine Learning Theory]
and
1.5 credits from the following (*):
Any C or D-level CSC, MAT or STA courses, excluding: STAC32H3, STAC53H3 and STAD29H3, 1.0 credit must be STA courses.
(*) Some of the courses on this list have prerequisites that are not included in this program; in choosing courses to satisfy this requirement, check the prerequisites carefully and plan accordingly.

SPECIALIST (CO-OPERATIVE) PROGRAM IN STATISTICS (SCIENCE)

Supervisor of Studies: S. Damouras (416-287-7269) Email: sotirios.damouras@utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Specialist (Co-operative) Program in Statistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Statistics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements

Enrolment is limited.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must have passed all of the A-level CSC and MAT courses required in the program (CSCA08H3, CSCA48H3, MATA22H3, MATA30H3/MATA31H3 and MATA36H3/MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.
Students who are not admitted as above may apply after completing at least 7.5 credits, including the core A-level courses listed above as well as MATB24H3, MATB41H3, MATB61H3, STAB52H3, and

STAB57H3. Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have a CGPA of at least 2.5 across all attempted courses.

Prospective Co-op Students:
Prospective students (i.e., those not already admitted to a Co-op Degree POSt) may apply to the Co-op Program after completing 4.0 credits, and must have passed all of the core A-level courses required in the program (CSCA08H3, CSCA48H3, MATA22H3, MATA30H3/ MATA31H3 and MATA36H3/MATA37H3). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.75 across all attempted courses.

In addition to requesting the Co-op Program on ACORN, prospective students must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Specialist Program in Statistics.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Statistics and have completed at least 7.0 credits.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MAJOR PROGRAM IN STATISTICS (SCIENCE)

Supervisor of Studies: M. Samarakoon Email: mahinda.samarakoon@utoronto.ca

Recommended Writing Course
Students are urged to take a course from the following list of courses by the end of their second year. ANTA01H3, ANTA02H3, (CLAA02H3), (CTLA19H3), CTLA01H3, ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB09H3, ENGB17H3, ENGB19H3, ENGB50H3, (ENGB51H3), GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), (HLTA01H3), ACMA01H3, (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.

Enrolment Requirements

Enrolment in the Major Program in Statistics is limited.

Students may apply to enter the program after completing 4.0 credits, and must have passed all of the A-level CSC and MAT courses required for the program ([CSCA08H3 or CSCA20H3], MATA22H3, [MATA30H3 or MATA31H3] and [MATA36H3 or MATA37H3]). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage.

Program Requirements
This program requires 8.0 credits.

1. A-level courses
MATA22H3 Linear Algebra I for Mathematical Sciences
[CSCA08H3 Introduction to Computer Science I or CSCA20H3 Computer Science for the Sciences]
[MATA30H3 Calculus I for Physical Sciences or MATA31H3 Calculus I for Mathematical Sciences*]
[MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences*]
*The sequence MATA31H3 and MATA37H3 is recommended. MATA31H3 is the prerequisite for MATA37H3.

2. B-level courses
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
STAB52H3 An Introduction to Probability*
STAB57H3 An Introduction to Statistics*

3. Upper-level courses
STAC67H3 Regression Analysis*
and
2.0 credits from the following:
any C- or D-level STA courses, except: STAC32H3 STAC53H3 and STAD29H3
and
1.0 credit from the following:
ACTB40H3, or any C- or D-level CSC, MAT or STA courses

* STAB52H3, STAB57H3, STAC67H3 - These courses must be taken at UTSC. No substitutes are permitted without permission of the program supervisor.

MAJOR (CO-OPERATIVE) PROGRAM IN STATISTICS (SCIENCE)

Supervisor of Studies: M. Samarakoon (416-208-4748), mahinda.samarakoon@utoronto.ca
Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Statistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Statistics upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of three Co-op work terms.

Enrolment Requirements

Enrolment in the Major (Co-operative) Program in Statistics is limited.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must have passed all of the A-level CSC and MAT courses required in the program ([CSCA08H3 or CSCA20H3], MATA22H3, [MATA30H3 or MATA31H3], and [MATA36H3 or MATA37H3]). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

Prospective Co-op Students:
Prospective students (i.e., those not already admitted to a Co-op Degree POSt) may apply to the Co-op Program after completing 4.0 credits, and must have passed all of the A-level CSC and MAT courses required in the program ([CSCA08H3 or CSCA20H3], MATA22H3, [MATA30H3 or

MATA31H3], and [MATA36H3 or MATA37H3]). Students are admitted on the basis of academic performance in program courses; for more information about the admission requirements, please visit the following CMS webpage. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students must complete the program requirements as described in the Major Program in Statistics.

Co-op Work Term Requirements
Students must satisfactorily complete three Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Statistics and have completed at least 7.0 credits.
In addition to their academic program requirements, Co-op students complete up to five Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for

programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN APPLIED STATISTICS (SCIENCE)

Supervisor of Studies: K. Butler Email: butler@utsc.utoronto.ca

This program may not be combined with any Major or Specialist Program in Computer Science, Mathematics or Statistics.

Program Requirements
This program requires a total of 4.0 credits as follows:

1. 0.5 credit from the following:
CSCA08H3 Introduction to Computer Science I
CSCA20H3 Introduction to Programming
CSC120H1 Computer Science for the Sciences
CSC121H1 Computer Science for Statistics

2. 0.5 credit from the following:
STAB22H3 Statistics I
STAB23H3 Introduction to Statistics for the Social Sciences
MGEB11H3 Quantitative Methods in Economics I
PSYB07H3 Data Analysis in Psychology
STA220H1 The Practice of Statistics I

3. 0.5 credit from the following:
STAB27H3 Statistics II
MGEB12H3 Quantitative Methods in Economics II
PSYC08H3 Advanced Data Analysis in Psychology
STA221H1 The Practice of Statistics II

4. 1.5 credits as follows:
STAC32H3 Applications of Statistical Methods
STAC53H3 Applied Data Collection
STAD29H3 Statistics for Life and Social Scientists

5. 1.0 credit from the following:
[one of the following: any ACT, CSC, MAT, STA course]
[one of the following: MGEA02H3, MGEA06H3, MGEB02H3, MGEB06H3, MGEC11H3, MGED11H3, MGED70H3]
GGRB02H3 The Logic of Geographical Thought
HLTB15H3 Introduction to Health Research Methodology

[one of the following: MGFB10H3, MGFC30H3, MGOC10H3, MGMC01H3, MGMD01H3]
POLC11H3 Applied Statistics for Politics and Public Policy

MINOR PROGRAM IN STATISTICS (SCIENCE)

Supervisor of Studies: M. Samarakoon Email: mahinda@utsc.utoronto.ca

Program Requirements
This program requires 4.0 credits.

1. First Year (2.0 credits)
[CSCA08H3 Introduction to Computer Science I *or* CSCA20H3 Computer Science for the Sciences]
MATA23H3 Linear Algebra I
[MATA30H3 Calculus I for Physical Sciences *or* MATA31H3 Calculus I for Mathematical Sciences]
and
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences.]
Notes:
1. The sequence [MATA31H3 and MATA37H3] is recommended.
2. MATA31H3 is the pre-requisite for MATA37H3.

2. Second Year (1.0 credit)
STAB52H3 An Introduction to Probability
STAB57H3 An Introduction to Statistics

3. Third and Fourth Year (1.0 credit)
STAC67H3 Regression Analysis

4. In addition, 0.5 credit must be chosen from any C- or D-level STA course (excluding STAC32H3, STAC53H3 and STAD29H3).

Statistics Courses

ACTB40H3 - Fundamentals of Investment and Credit

This course is concerned with the concept of financial interest. Topics covered include: interest, discount and present values, as applied to determine prices and values of annuities, mortgages, bonds, equities, loan repayment schedules and consumer finance payments in general, yield rates on investments given the costs on investments.

Prerequisite: MATA30H3 or MATA31H3 or MATA32H3
Exclusion: ACT240H, MGFB10H3/(MGTB09H3), (MGTC03H3)
Breadth Requirements: Quantitative Reasoning
Note: Students enrolled in or planning to enrol in any of the B.B.A. programs are strongly urged not to take ACTB40H3 because ACTB40H3 is an exclusion for MGFB10H3/(MGTB09H3)/(MGTC03H3), a required course in the B.B.A. degree. Students in any of the B.B.A programs will thus be forced to complete MGFB10H3/(MGTB09H3)/(MGTC03H3), even if they have credit for ACTB40H3, but will only be permitted to count one of ACTB40H3 and MGFB10H3/(MGTB09H3)/(MGTC03H3) towards the 20 credits required to graduate.

STAA57H3 - Introduction to Data Science

Reasoning using data is an integral part of our increasingly data-driven world. This course introduces students to statistical thinking and equips them with practical tools for analyzing data. The course covers the basics of data management and visualization, sampling, statistical inference and prediction, using a computational approach and real data.

Prerequisite: CSCA08H3
Exclusion: STAB22H3, STA130H, STA220H
Breadth Requirements: Quantitative Reasoning

STAB22H3 - Statistics I

This course is a basic introduction to statistical reasoning and methodology, with a minimal amount of mathematics and calculation. The course covers descriptive statistics, populations, sampling, confidence intervals, tests of significance, correlation, regression and experimental design. A computer package is used for calculations.

Exclusion: ANTC35H3, MGEB11H3/(ECMB11H3), (POLB11H3), PSYB07H3, (SOCB06H3), STAB23H3, STAB52H3, STAB57H3, STA220H, STA250H
Breadth Requirements: Quantitative Reasoning

STAB23H3 - Introduction to Statistics for the Social Sciences

This course covers the basic concepts of statistics and the statistical methods most commonly used in the social sciences. The first half of the course introduces descriptive statistics, contingency tables, normal probability distribution, and sampling distributions. The second half of the course introduces inferential statistical methods. These topics include significance test for a mean (t-test), significance test for a proportion, comparing two groups (e.g., comparing two proportions, comparing two means), associations between categorical variables (e.g., Chi-square test of independence), and simple linear regression.

Exclusion: ANTC35H3, MGEB11H3/(ECMB11H3), (POLB11H3), PSYB07H3, (SOCB06H3), STAB22H3, STAB52H3, STAB57H3, STA220H, STA250H
Breadth Requirements: Quantitative Reasoning

STAB27H3 - Statistics II

This course follows STAB22H3, and gives an introduction to regression and analysis of variance techniques as they are used in practice. The emphasis is on the use of software to perform the calculations and the interpretation of output from the software. The course reviews statistical inference, then treats simple and multiple regression and the analysis of some standard experimental designs.

Prerequisite: STAB22H3 or STAB23H3
Exclusion: MGEB12H3/(ECMB12H3), STAB57H3, STA221H, STA250H
Breadth Requirements: Quantitative Reasoning

STAB41H3 - Financial Derivatives

A study of the most important types of financial derivatives, including forwards, futures, swaps and options (European, American, exotic, etc). The course illustrates their properties and applications through examples, and introduces the theory of derivatives pricing with the use of the no-arbitrage principle and binomial tree models.

Prerequisite: ACTB40H3
Exclusion: MGFC30H3/(MGTC71H3)
Breadth Requirements: Quantitative Reasoning

STAB52H3 - An Introduction to Probability

A mathematical treatment of probability. The topics covered include: the probability model, density and distribution functions, computer generation of random variables, conditional probability, expectation, sampling distributions, weak law of large numbers, central limit theorem, Monte Carlo methods, Markov chains, Poisson processes, simulation, applications. A computer package will be used.

Prerequisite: MATA33H3 or MATA36H3 or MATA37H3
Exclusion: PSYB07H3, STA107H, STA257H
Breadth Requirements: Quantitative Reasoning

STAB57H3 - An Introduction to Statistics

A mathematical treatment of the theory of statistics. The topics covered include: the statistical model, data collection, descriptive statistics, estimation, confidence intervals and P-values, likelihood inference methods, distribution-free methods, bootstrapping, Bayesian methods, relationship among variables, contingency tables, regression, ANOVA, logistic regression, applications. A computer package will be used.

Prerequisite: STAB52H3
Exclusion: MGEB11H3, PSYB07H3, STAB22H3, STAB23H3, STA220H1, STA261H
Breadth Requirements: Quantitative Reasoning

STAC32H3 - Applications of Statistical Methods

A case-study based course, aimed at developing students' applied statistical skills beyond the basic techniques. Students will be required to write statistical reports. Statistical software, such as SAS and R, will be taught and used for all statistical analyses.

Prerequisite: STAB27H3 or MGEB12H3 or PSYC08H3 or STA221H1
Exclusion: STAC33H3
Breadth Requirements: Quantitative Reasoning

STAC33H3 - Introduction to Applied Statistics

This course introduces students to statistical software, such as R and SAS, and its use in analyzing data. Emphasis will be placed on communication and explanation of findings. Students will be required to write a statistical report.

Prerequisite: STAB57H3 or STA248H3 or STA261H3
Exclusion: STAC32H3
Breadth Requirements: Quantitative Reasoning

STAC50H3 - Data Collection

The principles of proper collection of data for statistical analysis, and techniques to adjust statistical analyses when these principles cannot be implemented. Topics include: relationships among variables, causal relationships, confounding, random sampling, experimental designs, observational studies, experiments, causal inference, meta-analysis. Statistical analyses using SAS or R.

Prerequisite: STAB57H3 or STA261H1. Students enrolled in the Minor program in Applied Statistics must take STAC53H3.
Exclusion: STA304H, STAC53H3
Breadth Requirements: Quantitative Reasoning

STAC51H3 - Categorical Data Analysis

Statistical models for categorical data. Contingency tables, generalized linear models, logistic regression, multinomial responses, logit models for nominal responses, log-linear models for two-way tables, three-way tables and higher dimensions, models for matched pairs, repeated categorical response data, correlated and clustered responses. Statistical analyses using SAS or R.

Prerequisite: STAB27H3 or STAB57H3 or MGEB12H3 or PSYC08H3
Exclusion: STA303H1
Breadth Requirements: Quantitative Reasoning

STAC53H3 - Applied Data Collection

This course introduces the principles, objectives and methodologies of data collection. The course focuses on understanding the rationale for the various approaches to collecting data and choosing appropriate statistical techniques for data analysis. Topics covered include elements of sampling problems, simple random sampling, stratified sampling, ratio, regression, and difference estimation, systematic sampling, cluster sampling, elements of designed experiments, completely randomized design, randomized block design, and factorial experiments. The R statistical software package is used to illustrate statistical examples in the course. Emphasis is placed on the effective communication of statistical results.

Prerequisite: STAB27H3 or MGEB12H3 or PSYC08H3 or STA221H1
Exclusion: STAC50H3, STA304H1, STA304H5
Breadth Requirements: Quantitative Reasoning
Note: Students enrolled in the Specialist or Major programs in Statistics should take STAC50H3.

STAC58H3 - Statistical Inference

Principles of statistical reasoning and theories of statistical analysis. Topics include: statistical models, likelihood theory, repeated sampling theories of inference, prior elicitation, Bayesian theories of inference, decision theory, asymptotic theory, model checking, and checking for prior-data conflict. Advantages and disadvantages of the different theories.

Prerequisite: STAB57H3 and STAC62H3
Exclusion: STA352Y, STA422H
Breadth Requirements: Quantitative Reasoning

STAC62H3 - Stochastic Processes

This course continues the development of probability theory begun in STAB52H3. Topics covered include finite dimensional distributions and the existence theorem, discrete time Markov chains, discrete time martingales, the multivariate normal distribution, Gaussian processes and Brownian motion.

Prerequisite: MATB41H3 and STAB52H3
Exclusion: STA347H1
Breadth Requirements: Quantitative Reasoning

STAC63H3 - Probability Models

This course continues the development of probability theory begun in STAC62H3. Probability models covered include branching processes, birth and death processes, renewal processes, Poisson processes, queuing theory, random walks and Brownian motion.

Prerequisite: STAC62H3
Exclusion: STA447H1, STA348H5
Breadth Requirements: Quantitative Reasoning

STAC67H3 - Regression Analysis

Orthogonal projections. Univariate normal distribution theory. The linear model and its statistical analysis, residual analysis, influence analysis, collinearity analysis, model selection procedures. Analysis of designs. Random effects. Models for categorical data. Nonlinear models. Instruction in the use of SAS.

Prerequisite: STAB57H3
Exclusion: STA302H, MGEB12H3
Breadth Requirements: Quantitative Reasoning

STAC70H3 - Statistics and Finance I

A mathematical treatment of option pricing. Building on Brownian motion, the course introduces stochastic integrals and Itô calculus, which are used to develop the Black-Scholes framework for option pricing. The theory is extended to pricing general derivatives and is illustrated through applications to risk management.

Prerequisite: [STAB41H3 or MGFC30H3/(MGTC71H3)] and STAC62H3
Corequisite: MATC46H3
Exclusion: APM466H, ACT460H
Breadth Requirements: Quantitative Reasoning

STAD29H3 - Statistics for Life & Social Scientists

The course discusses many advanced statistical methods used in the life and social sciences. Emphasis is on learning how to become a critical interpreter of these methodologies while keeping mathematical requirements low. Topics covered include multiple regression, logistic regression, discriminant and cluster analysis, principal components and factor analysis.

Prerequisite: STAC32H3
Exclusion: All C-level/300-level and D-level/400-level STA courses or equivalents except STAC32H3, STAC53H3, STAC51H3 and STA322H.
Breadth Requirements: Quantitative Reasoning

STAD37H3 - Multivariate Analysis

Linear algebra for statistics. Multivariate distributions, the multivariate normal and some associated distribution theory. Multivariate regression analysis. Canonical correlation analysis. Principal components analysis. Factor analysis. Cluster and discriminant analysis. Multidimensional scaling. Instruction in the use of SAS.

Prerequisite: STAC67H3
Exclusion: STA437H, (STAC42H3)
Breadth Requirements: Quantitative Reasoning

STAD57H3 - Time Series Analysis

An overview of methods and problems in the analysis of time series data. Topics covered include descriptive methods, filtering and smoothing time series, identification and estimation of times series models, forecasting, seasonal adjustment, spectral estimation and GARCH models for volatility.

Prerequisite: STAC62H3 and STAC67H3
Exclusion: STA457H, (STAC57H3)
Breadth Requirements: Quantitative Reasoning

STAD68H3 - Advanced Machine Learning and Data Mining

Statistical aspects of supervised learning: regression, regularization methods, parametric and nonparametric classification methods, including Gaussian processes for regression and support vector machines for classification, model averaging, model selection, and mixture models for unsupervised learning. Some advanced methods will include Bayesian networks and graphical models.

Prerequisite: CSCC11H3 and STAC58H3 and STAC67H3
Breadth Requirements: Quantitative Reasoning

STAD70H3 - Statistics and Finance II

A survey of statistical techniques used in finance. Topics include mean-variance and multi-factor analysis, simulation methods for option pricing, Value-at-Risk and related risk-management methods, and statistical arbitrage. A computer package will be used to illustrate the techniques using real financial data.

Prerequisite: STAC70H3 and STAD37H3
Corequisite: STAD57H3
Breadth Requirements: Quantitative Reasoning

STAD78H3 - Machine Learning Theory

Presents theoretical foundations of machine learning. Risk, empirical risk minimization, PAC learnability and its generalizations, uniform convergence, VC dimension, structural risk minimization, regularization, linear models and their generalizations, ensemble methods, stochastic gradient descent, stability, online learning.

Prerequisite: STAB57H3 and STAC62H3
Recommended Preparation: STAC58H3 and STAC67H3
Breadth Requirements: Quantitative Reasoning

STAD80H3 - Analysis of Big Data

Big data is transforming our world, revolutionizing operations and analytics everywhere, from financial engineering to biomedical sciences. Big data sets include data with high-dimensional features and massive sample size. This course introduces the statistical principles and computational tools for analyzing big data: the process of acquiring and processing large datasets to find hidden patterns and gain better understanding and prediction, and of communicating the obtained results for maximal impact. Topics include optimization algorithms, inferential analysis, predictive analysis, and exploratory analysis.

Prerequisite: STAC67H3 and CSCC11H3
Breadth Requirements: Quantitative Reasoning

STAD92H3 - Readings in Statistics

This course is offered by arrangement with a statistics faculty member. This course may be taken in any session and must be completed by the last day of classes in the session in which it is taken.

Prerequisite: Students must obtain consent from the Supervisor of Studies before registering for this course.
Breadth Requirements: Quantitative Reasoning

STAD93H3 - Readings in Statistics

This course is offered by arrangement with a statistics faculty member. This course may be taken in any session and must be completed by the last day of classes in the session in which it is taken.

Prerequisite: Students must obtain consent from the Supervisor of Studies before registering for this course.
Breadth Requirements: Quantitative Reasoning

STAD94H3 - Statistics Project

A significant project in any area of statistics. The project may be undertaken individually or in small groups. This course is offered by arrangement with a statistics faculty member. This course may be taken in any session and the project must be completed by the last day of classes in the session in which it is taken. Students must obtain consent from the Supervisor of Studies before registering for this course.

STAD95H3 - Statistics Project

A significant project in any area of statistics. The project may be undertaken individually or in small groups. This course is offered by arrangement with a statistics faculty member. This course may be taken in any session and the project must be completed by the last day of classes in the session in which it is taken.

Prerequisite: Students must obtain consent from the Supervisor of Studies before registering for this course.
Breadth Requirements: Quantitative Reasoning

Studio Art

Faculty List

- Y. Brotman, B.A. (Manitoba), B.Ed., M.V.S. (Toronto), Lecturer
- M. Hlady, B.F.A. (Victoria), M.F.A. (York), Associate Professor
- A. Irving, B.F.A. (Nova Scotia College of Art and Design), M.F.A. (York), Associate Professor, Teaching Stream
- W. Kwan, B.A. (Toronto), M.F.A. (Columbia), Associate Professor
- J. Lujan, B.F.A. (U of Texas), M.F.A. (U of Colorado), CTLA Assistant Professor
- T. Mars, D.F.A., Honoris Causa, NSCAD University, Associate Professor, Teaching Stream
- S. Mazinani, M.F.A. (Stanford), Assistant Professor

ACM Program Manager: M. Hussain, Email: manaal.hussain@utoronto.ca

The Studio Art programs at the University of Toronto Scarborough offers hands-on courses in drawing, painting, sculpture, photography, performance art, video, new media, animation, and conceptual practices. Students can also take specialized courses in digital imaging, sound art, kinetics, or thematic courses that explore such things as the relationships between art and globalization, or art and politics, or time-based art practices. UTSC Studio Art students develop a combination of technical, theoretical, conceptual and critical skills that enable them to express and communicate their ideas confidently in a variety of visual languages. Students explore art as a tool for examining and intervening in visual culture, to consider the role of creativity in shaping communities locally and globally.

Students are encouraged to engage with the diversity of contemporary art by examining art-making from aesthetic, intellectual, social, and political perspectives. They are exposed to current positions in contemporary art theory, criticism, and curation and study the history of art from various cultural and historical viewpoints. The wide range of artistic experiences offered by the UTSC Studio Art programs provides rigorous general visual arts education for students interested in careers in the cultural and design sectors. Studio Art also offers focused preparation for students interested in pursuing advanced visual art study at the graduate level.

The Studio Art programs are housed in the Department of Arts, Culture and Media, which offers students an interdisciplinary framework for analyzing the ideas and theories connecting the arts, and encourages students to explore the related fields of literature, history, anthropology, and other areas of Humanities and Social Sciences.
Some courses in Studio Art (VPS) may include Ancillary fees for lab and workshop materials.

Guidelines for course selection
The table below provides the recommended course selection guidelines for students wishing to complete the Specialist and Major Program in Studio Art. To ensure graduating when expected, all students should pay special attention to *prerequisites and corequisites* when selecting courses, this is especially important for C- and D-level courses.

Students wishing to complete the Minor Program in Studio Art do not require D-level courses.

Studio Art Course Selection Table:

Year of Study	Fall	Winter
First Year	MDSA01H3* VPHA46H3 VPSA62H3 VPSA63H3 * MDSA01H3 is a requirement if pursuing the Specialist Program in Studio Art Please contact ACM Program Manager if you are pairing Major Program in Studio Art with Major (Joint) Program in New Media Studies	ACMB01H3 VPSB56H3 *Additional course from the following (if pursuing the Specialist Program in Studio Art):* VPSB58H3 VPSB59H3 VPSB70H3
Second Year	B-level in Studio Art courses B-level in Art History courses (If pursuing the Specialist Program in Studio Art)	B- and C-level in Studio Art courses
Third Year	B- and C-level in Studio Art courses C-level in Art History courses (If pursuing the Specialist Program in Studio Art)	C-level in Studio Art courses
Fourth Year	D-level Studio Art course #1 Make sure the prerequisite is completed for this course in the previous year/semester	D-level Studio Art course #2 Make sure the prerequisite is completed for this course in the previous year/semester

The Specialist Program in Studio Art and the Major Program in Studio Art are limited enrolment programs that you need to apply for entry. Please read the Program Admission sections for instructions.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Studio Art Programs

SPECIALIST PROGRAM IN STUDIO ART (ARTS)

Undergraduate Advisor (General): Email: studio-program-supervisor@utsc.utoronto.ca

Enrolment Requirements
Enrolment in the Specialist in Studio Art is limited. Students must apply to enter the program after completing four credits including VPSA62H3 and VPSA63H3. Decisions are made on program admissions only twice a year, in May and August, and are based on student requests submitted to the Office of the Registrar through ACORN. Admission is determined on the basis of a student's overall GPA and grades in VPSA62H3 and VPSA63H3. For students applying after 8.0-10.0 credits, admission will be based on the overall GPA and grades in VPS courses taken.

Program Requirements
This program requires the completion of 14.0 credits, including 4.0 credits at the C-or D-level of which at least 1.0 credit must be at the D-level.

1. 3.0 credits
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
MDSA01H3 Introduction to Media Studies
VPSA62H3 Foundation Studies in Studio
VPSA63H3 But Why is it Art?
VPSB56H3 Digital Studio I
VPSB73H3 Curatorial Perspectives I

2. 0.5 credit
Choose from the following:
VPSB58H3 Video I
VPSB59H3 Sculpture I
VPSB70H3 Drawing I

3. 0.5 credit
Choose from the following:
VPSC56H3 Studio Practice
VPSC59H3 Theory and Practice: Three-Dimensional Work
VPSC66H3 Theory and Practice: Two Dimensional Work
VPSC68H3 Theory and Practice: Time-Based Work
VPSC69H3 Theory and Practice: Art in a Globalizing World
VPSC70H3 Theory and Practice: New Media in Studio

4. 6.0 credits
6.0 additional credits from VPS of which at least 1.5 credits should be at the C-level and 1.0 credit at the D-level.

5. 3.0 credits
VPHA46H3 Ways of Seeing: Introduction to Art Histories
and
2.5 additional credits in Art History of which at least 1.0 credit must be at the C-level.

6. 1.0 credit
Choose from the following:
ENGB12H3 Life Writing
ENGB70H3 How to Read a Film
ENGB75H3 Cinema and Modernity I
GASC42H3 Film and Popular Culture in South Asia
MDSA02H3 History of Media
MDSB05H3 Media and Globalization

MDSB61H3 Mapping New Media
MDSB62H3 Visual Culture and Communication

MAJOR PROGRAM IN STUDIO ART (ARTS)

Undergraduate Advisor (General): Email: studio-program-supervisor@utsc.utoronto.ca

Enrolment Requirements
Enrolment in the Major in Studio Art is limited. Students must apply to enter the program after completing four credits including VPSA62H3 and VPSA63H3. Decisions are made on program admissions only twice a year, in May and August, and are based on student requests submitted to the Office of the Registrar through ACORN. Admission is determined on the basis of a students overall GPA and grades in VPSA62H3 and VPSA63H3.

Program Requirements
Students must complete 8.0 credits as follows:

1. 1.0 credit
VPSA62H3 Foundation Studies in Studio
VPSA63H3 But Why Is It Art?

2. ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs

3. VPHA46H3 Ways of Seeing: Introduction to Art Histories

4. VPSB56H3 Digital Studio I

5. At least 0.5 credit from:
VPSB58H3 Video I
VPSB59H3 Sculpture I
VPSB70H3 Drawing I

6. At least 0.5 credit from:
VPSC56H3 Studio Practice
VPSC59H3 Theory and Practice: Three-Dimensional Work
VPSC66H3 Theory and Practice: Two-Dimensional Work
VPSC68H3 Theory and Practice: Time-Based Work
VPSC69H3 Theory and Practice: Art in a Globalizing World
VPSC70H3 Theory and Practice: New Media in Studio

7. 3.5 additional credits from courses in VPS, of which at least 1.0 credit must be at the C-level.

8. 1.0 credit at the D-level in VPS courses.

MINOR PROGRAM IN STUDIO ART (ARTS)

Undergraduate Advisor (General): Email: studio-program-supervisor@utsc.utoronto.ca

Enrolment Requirements
Enrolment in the Minor in Studio Art is unlimited.
Students cannot pair this program with a Major or Specialist program in Studio Art.

Program Requirements
Students are required to complete a total of 4.5 credits as follows:

1. VPSA62H3 Foundation Studies in Studio

2. VPSA63H3 But Why is it Art?

3. At least 0.5 credit from:
VPSB56H3 Digital Studio I
VPSB58H3 Video I
VPSB59H3 Sculpture I
VPSB70H3 Drawing I

4. 2.0 credits at the B-level in VPS courses.

5. 1.0 credit at the C-level in VPS courses, including 0.5 credit from the following:
VPSC56H3 Studio Practice
VPSC59H3 Theory and Practice: Three-Dimensional Work
VPSC66H3 Theory and Practice: Two-Dimensional Work
VPSC68H3 Theory and Practice: Time-Based Work
VPSC69H3 Theory and Practice: Art in a Globalizing World
VPSC70H3 Theory and Practice: New Media in Studio

Studio Art Courses

VPSA62H3 - Foundation Studies in Studio

An introduction to the importance of content and context in the making of contemporary art.

Corequisite: VPSA63H3
Exclusion: VIS130H, JAV130H
Enrolment Limits: 20 per section
Breadth Requirements: Arts, Literature & Language

VPSA63H3 - But Why Is It Art?

This introductory seminar examines the key themes, concepts, and questions that affect the practice of contemporary art. We will look at specific cases in the development of art and culture since 1900 to understand why and how contemporary art can exist as such a wide-ranging set of forms, media and approaches.

Exclusion: VIS120H, JAV120H, VST101H
Breadth Requirements: History, Philosophy & Cultural Studies

VPSB56H3 - Digital Studio I

This hands-on, project-based class will investigate fundamental digital concepts common to photography, animation, and digital publishing practices. Students will learn general image processing, composing, colour management, chromakey, and typograpic tools for both on-line and print-based projects. These will be taught through Adobe Creative Suite software on Apple computers.

Corequisite: VPSA62H3 and VPSA63H3
Exclusion: (VPSA74H3), VIS218H, FAS147H
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB58H3 - Video I

An introduction to the basic principles of video shooting and editing as well as an investigation into different conceptual strategies of video art. The course will also provide an introduction to the history of video art.

Prerequisite: VPSA62H3 and VPSA63H3
Exclusion: (VPSA73H3), VIS202H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB59H3 - Sculpture I

This course introduces students to the use of three-dimensional materials and processes for creating sculptural objects. Traditional and non-traditional sculptural methodologies and concepts will be explored.

Prerequisite: VPA62H3 and VPSA63H3
Exclusion: (VPSA71H3) FAS248H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB61H3 - Painting I

An investigation of the basic elements and concepts of painting through experimentation in scale and content.

Prerequisite: VPSA62H3 and VPSA63H3
Exclusion: (VPSA61H3), VIS201H, FAS145H
Enrolment Limits: 20 per section
Breadth Requirements: Arts, Literature & Language

VPSB62H3 - Painting II

A continuation of Painting I with an emphasis on images and concepts developed by individual students.

Prerequisite: VPSB61H3
Exclusion: VIS220H, FAS245H
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB67H3 - Photo I

An introduction to fundamental photographic concepts including depth, focus, stopped time, lighting and photographic composition in contrast to similar fundamental concerns in drawing and painting. A practical and historical discourse on the primary conceptual streams in photography including various documentary traditions, staged photographs and aesthetic approaches from photographic modernism to postmodernism.

Prerequisite: VPSB56H3
Exclusion: (VPSA72H3), VIS218H, FAS147H
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB70H3 - Drawing I

An investigation of the various approaches to drawing, including working from the figure and working with ideas.

Prerequisite: VPSA62H3 and VPSA63H3
Exclusion: (VPSA70H3), VIS205H, FAS143H
Enrolment Limits: 20 per section
Breadth Requirements: Arts, Literature & Language

VPSB71H3 - Artist Multiples

Artist multiples are small, limited edition artworks that include sculptures, artist books, mass-produced ephemera such as posters, postcards and small objects. Students will explore the production and history of 2D and 3D works using a variety of media and approaches. This course is about both making and concepts.

Prerequisite: VPSA62H3 and VPSA63H3
Exclusion: VIS321H
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB73H3 - Curatorial Perspectives I

This course is designed to offer students direct encounters with artists and curators through studio and gallery visits. Field encounters, written assignments, readings and research focus on contemporary art and curatorial practices. The course will provide skills in composing critical views, artist statements, and writing proposals for art projects.

Prerequisite: [[VPSA62H3 and VPSA63H3] and [0.5 credit at the B-level in VPS courses]] or [enrolment in the Minor in Curatorial Studies]
Exclusion: VIS320H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB74H3 - Drawing II

A continuation of VPSB70H3 with an increased emphasis on the student's ability to expand her/his personal understanding of the meaning of drawing.

Prerequisite: VPSA62H3and VPSA63H3 and VPSB70H3
Exclusion: VIS211H, FAS243H
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB75H3 - Photo II

A Studio Art course in digital photography as it relates to the critical investigation of contemporary photo-based art.

Prerequisite: VPSB67H3
Exclusion: FAS247H, VIS318H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB76H3 - Video II

This course explores advanced camera and editing techniques as well as presentation strategies using installation, projection, and multiple screens. Students will make projects using both linear and non-linear narratives while exploring moving image influences from online culture, popular media, surveillance culture, cinema, photography, performance, and sculpture.

Prerequisite: VPSB58H3
Exclusion: VIS302H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB77H3 - Performance Art

This course covers the history and practice of performance art. Students will employ contemporary performance strategies such as duration, ritual, repetition, intervention, tableau vivant, endurance and excess of materials in their projects. We will also study the relationship of performance to other art disciplines and practices such as theatre and sculpture.

Prerequisite: VPSA62H3 and VPSA63H3
Exclusion: VIS208H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB80H3 - Digital Studio II

An in-depth investigation of digital imaging technologies for serious studio artists and new media designers. Emphasis is placed on advanced image manipulation, seamless collage, invisible retouching and quality control techniques for fine art production. Project themes will be drawn from a critical analysis of contemporary painting and photo-based art.

Prerequisite: VPSB56H3
Exclusion: FAS247H, VIS318H
Recommended Preparation: VPSB67H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB85H3 - Text as Image/Language as Art

This course looks at how visual artists employ words in their art. Students will be introduced to the experimental use of text in contemporary art: how typography has influenced artists and the role of language in conceptual art by completing projects in various media.

Prerequisite: VPSA62H3 and VPSA63H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB86H3 - Sculpture II

This course introduces students to the time-based use of three-dimensional materials and processes for creating sculptural objects. Students will use both traditional and non-traditional materials in combination with simple technologies.

Prerequisite: [VPSA62H3 and VPSA63H3] and VPSB59H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB88H3 - Sound Art

Students will be introduced to sound as a medium for art making. Listening, recording, mapping, editing, and contextualizing sounds will be the focus of this course. Sound investigations will be explored within both contemporary art and experimental sound/music contexts.

Prerequisite: VPSA62H3 and VPSA63H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSB89H3 - Digital Animation I

A non-traditional course in the digital production of non-analog, two-dimensional animation through the use of computer-based drawing, painting, photography and collage. Students will learn design strategies, experimental story lines, sound mixing, and video transitions to add pace, rhythm, and movement to time based, digital art projects.

Prerequisite: VPSA62H3 and VPSA63H3 and VPSB56H3
Recommended Preparation: VPSB70H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSB90H3 - Digital Animation II

A project based course, building upon concepts developed in VPSB89H3 Introduction to Digital Animation. Students will refine their control of sound, movement, and image quality. This course will also introduce three-dimensional wire frame and ray-tracing techniques for constructing convincing 3-D animated objects and scenes as they apply to contemporary artistic practices.

Prerequisite: VPSB89H3
Exclusion: (VPSC89H3)
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSC04H3 - "Live!"

"Live!" investigates interdisciplinary modes of contemporary performance. Within a studio context, this course serves as an advanced exploration of 21st century Live Art. This interactive course reviews the dynamics of time, space and existence, and asks fundamental questions about the body and performance.

Prerequisite: VPHA46H3 and [VPSB77H3 or THRA11H3/VPDA11H3 or (VPDA15H3)] and [1.5 additional credits at the B- or C-level in VPS or THR courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: (VPDC06H3), (VPSC57H3), (VPAC04H3)
Enrolment Limits: 12
Breadth Requirements: Arts, Literature & Language

VPSC51H3 - Curatorial Perspectives II

This course focuses on the finer details of curating and/or collecting contemporary art. Students will delve into the work of selected artists and curators with an emphasis on the conceptual and philosophical underpinnings of their projects. Term work will lead to a professionally curated exhibition, or the acquisition of an artwork.

Prerequisite: [VPHA46H3 and VPSB73H3]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC53H3 - Kinetic Sculpture

Students will produce time-based three-dimensional artworks. Students will be encouraged to use altered machines, simple electronic components and a wide range of materials.

Prerequisite: [VPHA46H3 and VPSB59H3 and VPSB86H3] and [an additional 1.0 credit at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: (VPSB64H3)
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC54H3 - Painting III

An advanced course for students who are able to pursue individual projects in painting, with a focus on contemporary practice and theory.

Prerequisite: [VPHA46H3 and VPSB62H3] and [an additional 1.0 credit at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: VIS301H, FAS345Y
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC55H3 - Drawing III

An advanced course for students who are able to pursue individual projects dealing with the complex relationships between drawing and other art practices like installation, painting and mixed media.

Prerequisite: [VPHA46H3 and VPSB74H3]; and [an additional 1.0 credit at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: VIS305H, VIS308H, FAS343Y
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSC56H3 - Studio Practice

A supervised course focused specifically on the development of the student's work from initial concept through to the final presentation. Students may work in their choice of media with the prior written permission of the instructor.

Prerequisite: 2.5 credits at the B- or C-level in VPS courses; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3 and VPHA46H3
Exclusion: VIS311H, VIS326
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC59H3 - Theory and Practice: Three- Dimensional Work

An exploration of ideas and practice with an emphasis on three-dimensional work.

Prerequisite: 2.5 credits at the B- or C-level in VPS courses including 0.5 credit taken from: VPSB59H3, VPSB71H3, VPSB77H3, VPSB86H3, or VPSB88H3; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3 and VPHA46H3
Exclusion: VPSC75H3, VIS306H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC66H3 - Theory and Practice: Two-Dimensional Work

An exploration of ideas and practice with an emphasis on two-dimensional work, including digital imaging.

Prerequisite: 2.5 credits at the B- or C-level in VPS courses including 1.0 credit taken from: VPSB56H3, VPSB61H3, VPSB62H3, VPSB67H3, VPSB70H3, VPSB74H3, VPSB75H3, VPSB80H3, or VPSB85H3; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3 and VPHA46H3
Exclusion: VIS211H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC68H3 - Theory and Practice: Time-Based Work

An exploration of ideas and practice with an emphasis on time-based media: performance, video, audio, time-based sculpture and installation.

Prerequisite: 2.5 credits at the B- or C-level in VPS courses including 0.5 credit taken from: VPSB58H3, VPSB59H3, VPSB76H3, VPSB77H3, VPSB88H3, VPSB89H3, or VPSB90H3; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3 and VPHA46H3
Exclusion: VIS303H, FAS349H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC69H3 - Theory and Practice: Art in a Globalizing World

This course will focus on the influence of global visual culture on contemporary art practices; exploring how artists respond to orientalism, colonial histories, migration, media, tourism, and the international art world. The culturally diverse backgrounds of students and their understanding of global media will be starting points for studio projects.

Prerequisite: 2.5 credits at the B- or C-level in VPS courses; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3 and VPHA46H3
Exclusion: VIS325H
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

VPSC70H3 - Theory and Practice: New Media in Studio

Information technologies are radically and rapidly transforming our culture. Networking, robotics, GPS, ubiquitous computing, data mining, rfid, biotech, surveillance, sound installation, digital image processing and interactive display are all offering new opportunities for the artist as well as new critical issues to address. Students will create affordable projects that address these issues.

Prerequisite: 2.5 credits at the B- or C-level in VPS courses including 0.5 credit taken from: VPSB56H3, VPSB58H3, VPSB76H3, VPSB80H3, VPSB86H3, VPSB88H3, VPSB89H3, VPSB90H3, NMEB05H3, NMEB08H3, or NMEB09H3; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3 and VPHA46H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC71H3 - Performing with Cameras

This course investigates the relationship of the body to the camera. Using both still and video cameras and live performance students will create works that unite the performative and the mediated image. The course will cover how the body is framed and represented in contemporary art, advertising and the media.

Prerequisite: VPHA46H3 and [2.0 credits at the B- or C-level in VPS courses including 0.5 credit taken from: VPSB58H3, VPSB67H3, VPSB75H3, VPSB76H3, or VPSB77H3]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC73H3 - Interdisciplinary Drawing Concepts

Interdisciplinary Drawing Concepts will extend drawing into a range of other media, allowing students to explore the sculptural, temporal and performative potential of mark-making.

Prerequisite: VPHA46H3 and VPSB70H3 and VPSB74H3 and [an additional 1.0 credit at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: VIS308H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC75H3 - Advanced Sculpture

Advanced Sculpture will provide students with an opportunity for a deeper investigation into various materials and fabrication techniques. This course will focus on the theory and practice of object making through studio assignments that develop a critical and technical literacy towards both traditional and non-traditional sculpture materials.

Prerequisite: VPHA46H3 and [VPSB59H3 or VPSB71H3 or VPSB86H3]; and [an additional 1.5 credits at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC76H3 - The Documentary Image

Lens-based art forms such as photography and video have a rich tradition as a documentary practice. These media have engendered their own techniques, aesthetic, and cultural context. This course is designed to introduce students to the role of the documentary image in contemporary art practice, through personal, conceptual, and photo-journalistic projects accomplished outside of the studio.

Prerequisite: VPHA46H3 and VPSB56H3 and [VPSB58H3 or VPSB67H3] and [1.0 additional credit at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSC77H3 - Interdisciplinary Photo Concepts

This course will expand photographic practice into a range of other media. Students will explore the sculptural, temporal, performative, and painterly potential of the photograph and photographic technologies.

Prerequisite: VPHA46H3 and VPSB56H3 and VPSB67H3 and [1.0 credit at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: VIS318H, FAS347Y
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC78H3 - Sculpture and the Everyday

Sculpture and the Everyday introduces students to contemporary sculptural approaches that include the use of everyday found materials and sculptural interventions in public spaces. Students will learn new techniques for installing and presenting artworks inside and outside of the gallery. Previous experience in sculpture is not required for this course.

Prerequisite: VPHA46H3 and [2.0 credits at the B-level in VPS courses]; student enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: (VPSB63H3), VIS204H
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

VPSC79H3 - Art and Activism

This course will explore contemporary artistic practices that blur the boundary between art and activism.
We will examine how artists address political issues and the techniques they use to reach different types of audiences. Students will do research and develop projects that address specific local issues and wider social concerns.

Prerequisite: VPHA46H3 and [2.0 credits at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: VIS307H, VIS310H
Enrolment Limits: 20
Breadth Requirements: Social & Behavioural Sciences

VPSC80H3 - Digital Publishing

A course for students interested in designing and publishing artworks using digital tools. The emphasis will be on short-run printed catalogues, along with some exploration of e-books and blogs. Lessons will identify common editorial and image preparation concerns while introducing software for assembling images, videos, sounds, graphics, and texts into coherent and intelligently-designed digital publications. Creative solutions are expected.

Prerequisite: VPHA46H3 and VPSB56H3 and [an additional 1.5 credits at the B- or C-level in VPS courses]; students enrolled in the Specialist and Major programs in Studio Art must also complete ACMB01H3
Exclusion: (VPSB72H3), VIS328H
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language

VPSD55H3 - Advanced Special Topics in Studio

This advanced Master Class will be taught by a newly invited instructor each time it is offered to provide students with an opportunity to study with an established or emerging artist from the GTA who is engaged in research that is of significance to current art practice.

Prerequisite: 1.5 credits at the C-level in VPS courses
Exclusion: VIS401H, VIS402H, VIS403H, VIS404H, VIS410H, FAS450Y, FAS451H, FAS452H
Enrolment Limits: 15

VPSD56H3 - Advanced Studio Practice

An advanced course for students ready to work independently on their own projects. Students will be expected to work on their projects from conception to a final exhibition in the student-run gallery. Students may work in their choice of media.

Prerequisite: 1.5 credits at the C-level in VPS courses.
Exclusion: VIS401H, VIS402H, VIS403H, VIS404H, FAS450Y, FAS451H, FAS452H
Enrolment Limits: 15

VPSD57H3 - Advanced Seminar: Interdisciplinary Practice

An opportunity for students in VPS to explore aspects of contemporary inter-media practice and theory. Students will make work in their choice of media.

Prerequisite: 1.5 credits at the C-level in VPS courses.
Exclusion: VIS401H, VIS402H, VIS403H, VIS404H, FAS450Y, FAS451H, FAS452H
Enrolment Limits: 15

VPSD58H3 - Advanced Seminar: Two-Dimensional Work

Students who have developed strong portfolios in painting, drawing or printmaking and intend to pursue professional exhibition careers will continue their investigations into two-dimensional expression and develop professional quality projects with thorough promotional strategies.

Prerequisite: 1.5 full credits at the C-level in VPS courses.
Exclusion: VIS401H, VIS402H, VIS403H, VIS404H, FAS450Y, FAS451H, FAS452H
Enrolment Limits: 15

VPSD63H3 - Independent Studies in Studio: Advanced Level

This option is available in rare and exceptional circumstances to students who have demonstrated a high level of academic maturity and competence. Qualified students will have the opportunity to investigate an area of contemporary art that is of common interest to both student and supervisor.

Prerequisite: At least 15.0 credits and completion of the Major in Studio Art and written permission of the instructor in the previous session.
Exclusion: VIS401H, VIS402H, VIS403H, VIS404H

Centre for Teaching and Learning

Faculty List

- N. Johnston, B.A. (Trent), M.A., Ph.D. (York), Associate Professor, Teaching Stream
- E. Khoo, B.Sc. (U. of Malaysia), M.A. (U. of Reading), Ph.D. (U. of South Queensland), Associate Professor, Teaching Stream
- S. King, B.A. (Glendon), M.A., Ph.D. (U. of Western Ontario), Associate Professor, Teaching Stream
- K. McCrindle, M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- H.L. Meacock, B.A. (Trent), M.A. (York), Lecturer
- K. Persaud, B.Sc. (Toronto), B.Ed. (U. of Western Ontario), Ph.D. (McMaster), Associate Professor, Teaching Stream
- Z. Shahbazi, B.Sc. (Sharif University of Technology), M.Sc., Ph.D. (Toronto), Associate Professor, Teaching Stream
- S. Stevenson, B.A., M.A., Ph.D. (Maryland), Lecturer, Emerita

Director: K. McCrindle Email: adteaching@utsc.utoronto.ca

Centre for Teaching and Learning (CTL) provides leadership in educational excellence through supporting and inspiring transformative and inclusive teaching and learning. CTL advises and collaborates with all instructors to support an interactive community of scholarly teaching excellence, inquiry and innovation. CTL also engages with all students, individually and through course support and other learning initiatives, to enhance foundational skills required for coursework and beyond. CTL support includes:

• **Facilitated Study Groups** which are weekly collaborative learning sessions for selected UTSC courses.
• **Mathematics and Statistics Learning Support** is open to all students who wish to improve their quantitative reasoning skills, and includes workshops and drop-in help for students in specific Mathematics and Statistics courses.
• **Writing Support** assists student learning in any discipline at any stage of the writing process, and offers one-to-one and group instruction.
• The **Experiential Learning** program connects students with on- and off-campus experiential placement opportunities to deepen their academic learning.
• **English Language Development Support** provides English Language learners with programming that includes individual appointments with writing experts, interactive and Cafe-style game-based learning sessions.

CTL also offers courses that focus on skill and personal development. CTLA01H3 and CTLA02H3 are designed for English Language Learners to help them bring their academic English skills to a level that matches their other strong academic skills. CTLB03H3, our experiential learning course, is open to students in all disciplines who want hands-on opportunities to use and enhance their academic knowledge.

Learn more at:
English Language Development Support website.
Facilitated Study Groups website.

Mathematica and Statistics Learning Support website.
Experiential Learning website,
Writing Support website.

For Faculty, Instructors, Graduate Students, and Teaching Assistants:
Learning Management System (Quercus) and other Educational Technology, please click here.
Teaching Support for Faculty and Instructors, please click here.
Teaching Assistant Training and Graduate Student Support, please click here

Centre For Teaching And Learning Courses

CTLA01H3 - Foundations in Effective Academic Communication

This highly interactive course for English Language Learners who find Academic English a challenge aims to fast-track the development of critical thinking, reading, writing and oral communication skills. Through emphasizing academic writing and rapid expansion of vocabulary, students will gain practical experience with university-level academic texts and assignment expectations.

Prerequisite: No more than 10.0 credits completed. Students are required to take a diagnostic test of academic English skills to be conducted by the English Language Development Support, Centre for Teaching and Learning, in advance of the first day of class.
Enrolment Limits: 20 students per practicum
Breadth Requirements: Arts, Literature & Language
Note: The instructor has the authority to exclude students whose level of proficiency is unsuitable for the course, including those students who meet the prerequisites.

CTLA02H3 - Exploring Inter-Cultural Perspectives in Academic Contexts

Students will develop language, communication and critical thinking skills through an exploration of culture and academic culture(s). Students will use various media in activities and assignments to connect their knowledge and experience with course learning, to foster dynamic academic integration for international students as they develop their English and multi-literacies.

Prerequisite: No more than 10.0 credits completed. Students are required to take a diagnostic test of their academic English skills to be conducted by the English Language Development Support, Centre for Teaching and Learning in advance of the first day of class.
Enrolment Limits: 20
Breadth Requirements: Arts, Literature & Language
Note: The instructor has the authority to exclude students whose level of proficiency is unsuitable for the language learning and cultural exploration focus of the course, including those students who meet the prerequisites.

CTLA10H3 - Personal Health and Optimal Learning

Students in this course develop foundational academic skills while critically exploring issues in personal health, including current research on cognitive, academic and mental health benefits of exercise and healthy nutrition. Lectures are complemented by activities at Toronto Pan Am Sports Centre to foster students' application of course materials to both their learning and their health.

Enrolment Limits: 50
Breadth Requirements: Social & Behavioural Sciences

CTLB03H3 - Introduction to Community Engaged Learning

In this experiential learning course, students apply their discipline-specific academic knowledge as they learn from and serve, their engage with communities. Students provide, and gain, unique perspectives and insights as they engage interact in placements with community partners. Through class discussions, workshops and assignments, students also develop transferable life skills such as interpersonal communication, professionalism and self-reflection that support their learning experiences and help them connect theory and practice.

Prerequisite: Completion of 4.0 credits and selection of a U of T Scarborough Specialist or Major program. GPA will also be considered.
Exclusion: FREC10H3, HCSC01H3
Enrolment Limits: 30
Breadth Requirements: Social & Behavioural Sciences

Theatre and Performance

Faculty List

- B. Freeman, B.A., M.A., Ph.D. (Toronto), Associate Professor
- T. Lamie, B.A. (Dalhousie), M.F.A. (York), Associate Professor, Teaching Stream
- E. Leffler, B.S. (Northwestern), M.A. (Cape Town), Ph.D., (Minnesota), Assistant Professor

ACM Program Manager: M. Hussain Email: manaal.hussain@utoronto.ca

The Theatre and Performance program provides students with opportunities to investigate theatre and performance from the multiple vantage points of performers, directors, designers, technicians, and scholars. Students in our program emerge as creative practitioners with a dynamic range of collaborative skills and citizen-artists with a unique readiness to contribute to, and productively challenge, their society. Theatre and Performance draws together four groups: students who major or minor in theatre and performance studies, those who specialize in other aspects of arts, media and culture, students interested in pursuing a teaching career in Theatre, and students from other programs and majors who have a casual interest in theatre and performance. To address the needs of our diverse student body we offer courses in four complementary areas:
(1) the analysis of performance, based on theory and history;
(2) the practical, artistic skills of theatre-makers, including acting, directing, design, and technical theatre;
(3) the non-commercial uses of theatre in various communities, including schools and political movements; and
(4) the experiential, ensemble-based process of rehearsing and performing theatre.
By taking classes across these areas of our curriculum Our students gain an intellectual and critical grounding in theatre and performance while also acquiring experience in theatre production Our program also benefits from ongoing connections to Toronto's vibrant arts scene. Field trips, guest lectures, workshops, and unique collaborations with working artists provide students with new knowledge, skills and exposure to working professionals in the field.

Note: Not all courses are offered every year. In planning their programs, students are encouraged to consult the ACM Program Manager.
Some courses in Theatre and Performance (THR) may include Ancillary fees.

Combined Degree Programs, Honours Bachelor of Arts/ Master of Teaching
The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education provide students with a direct pathway to the completion, in 6 years, of their Undergraduate degree, Ontario Teacher's Certificate of Qualifications, and Master's degree. These Combined Degree Programs allow students to complete 1.0 credit in courses that may be counted towards both degrees.

The Combined Degree Program option is:

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

For more information, including Admission and Program requirements, see the Combined Degree Programs section of the *Calendar*.

Guidelines for first-year course selection
Students who intend to complete a Theatre and Performance Studies Program should include ACMB01H3, THRA10H3 and THRA11H3 in their first-year course selection.

The Theatre and Performance Program Study Guide can be found on the Department of Arts, Culture and Media website.

Areas of Focus

Theatre & Society	Theatre in Communities	Performance	Production
THRB20H3 THRB21H3 THRB22H3 THRC20H3	THRB40H3 THRC40H3 THRC41H3	THRB30H3 THRB31H3 THRB32H3 THRC30H3 THRD30H3 THRD31H3	THRB50H3 THRB55H3 THRB56H3 THRC50H3 THRC55H3 THRC56H3 THRD55H3 THRD56H3

Nomenclature Change: The Department of Arts, Culture and Media has changed the subject designator code for Theatre and Performance courses from VPD to THR. Consult the table below for equivalences.

Old Course Code	New Course Code
VPDA10H3	THRA10H3
VPDA11H3	THRA11H3
VPDB03H3	THRB50H3
VPDB04H3	THRB40H3
VPDB10H3	THRB20H3
VPDB11H3	THRB21H3
VPDB13H3	THRB22H3
VPDC01H3	THRC50H3

VPDC02H2	THRD30H3
VPDC13H3	THRC20H3
VPDC20H3	THRC15H3
VPDD23H3	THRD90H3
VPDD28H3	THRD91H3
VPDD50H3	THRD60H3

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Theatre And Performance Programs

COMBINED DEGREE PROGRAMS, HONOURS BACHELOR OF SCIENCE OR HONOURS BACHELOR OF ARTS / MASTER OF TEACHING

The Combined Degree Programs for UTSC Honours Bachelor of Science (HBSc)/ Honours Bachelor of Arts (HBA) with the Master of Teaching (MT) offered by the Ontario Institute for Studies in Education are designed for students who are interested in a career in Education. They allow exceptional students who are registered in one of the 50 identified Specialist and Major programs to gain early admission to the MT, which is a full-time professional program that leads to both a Master's degree and eligibility to become a certified teacher in Ontario. Students who successfully complete one of the Combined Degree Programs listed below will earn two University of Toronto degrees (HBA/ HBSc and MT), and be recommended to the Ontario College of Teachers for a Certificate of Qualifications as elementary or secondary school teachers.

Contact Information:
Marcelle DeFreitas (Combined Degree Programs Coordinator)
Email: mdefreitas@utsc.utoronto.ca

The Combined Degree Programs options are:

Department of Anthropology

- Evolutionary Anthropology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Evolutionary Anthropology (Major), Honours Bachelor of Science/ Master of Teaching
- Socio-Cultural Anthropology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Socio-Cultural Anthropology (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Arts, Culture and Media

- Theatre and Performance Studies (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Biological Sciences

- Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Specialist), Honours Bachelor of Science/ Master of Teaching
- Conservation and Biodiversity (Major), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Human Biology (Major), Honours Bachelor of Science/ Master of Teaching
- Integrative Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology and Biotechnology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Molecular Biology, Immunology and Disease (Major), Honours Bachelor of Science/ Master of Teaching
- Plant Biology (Major), Honours Bachelor of Science/ Master of Teaching

Department of Computer and Mathematical Sciences

- Mathematics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major), Honours Bachelor of Science/ Master of Teaching
- Mathematics (Major Co-op), Honours Bachelor of Science/ Master of Teaching

Department of English

- English (Specialist), Honours Bachelor of Arts/ Master of Teaching
- English (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- English (Major), Honours Bachelor of Arts/ Master of Teaching
- English (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Language Studies

- French (Specialist), Honours Bachelor of Arts/ Master of Teaching
- French (Specialist Co-op), Honours Bachelor of Arts/ Master of Teaching
- French (Major), Honours Bachelor of Arts/ Master of Teaching
- French (Major Co-op), Honours Bachelor of Arts/ Master of Teaching

Department of Historical and Cultural Studies

- History (Specialist), Honours Bachelor of Arts/ Master of Teaching
- History (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Human Geography

- Human Geography (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Human Geography (Major), Honours Bachelor of Arts/ Master of Teaching

Department of Physical and Environmental Sciences

- Biological Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Biological Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Biochemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major), Honours Bachelor of Science/ Master of Teaching
- Chemistry (Major Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Biology (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Chemistry (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Environmental Physics (Specialist Co-op), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Specialist), Honours Bachelor of Science/ Master of Teaching
- Physics and Astrophysics (Major), Honours Bachelor of Science/ Master of Teaching
- Physical and Mathematical Sciences (Specialist), Honours Bachelor of Science/ Master of Teaching

Department of Sociology

- Sociology (Specialist), Honours Bachelor of Arts/ Master of Teaching
- Sociology (Major), Honours Bachelor of Arts/ Master of Teaching

Students applying to the MT must have two teaching subjects regardless of the concentration they are applying to (Primary/Junior, Junior/Intermediate, or Intermediate/Senior), and must have completed at least 6.0 credits in their first teaching subject and at least 3.0 credits in their second teaching subject (note: both French as a Second Language and Science require at least 6.0 credits in university courses even when they are a second teaching subject). Each of the programs listed below includes a minimum of 6.0 credits in courses that can be applied towards the completion of the prerequisites for the identified OISE teaching subject(s).

UTSC Programs Fit With OISE MT Teaching Subjects:

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Specialist/ Specialist Co-op in Biological Chemistry	Science - Chemistry, or Science - Biology, or Science - General
- Specialist/Specialist Co-op in Molecular Biology and Biotechnology	Science - Biology, or Science - General
- Major/Major Co-op In Biochemistry	Science - Biology

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
- Major in Biology - Specialist in Conservation and Biodiversity - Major in Conservation and Biodiversity - Specialist in Human Biology - Major in Human Biology - Specialist in Integrative Biology - Major in Molecular Biology, Immunology and Disease - Major in Plant Biology - Specialist/Specialist Co-op in Environmental Biology	
- Specialist/Specialist Co-op in Chemistry - Major/Major Co-op in Chemistry - Specialist/Specialist Co-op in Environmental Chemistry	Science - Chemistry
- Specialist/Specialist Co-op in Environmental Physics - Specialist in Physics and Astrophysics - Major in Physics and Astrophysics - Specialist in Physical and Mathematical Sciences	Science - Physics
- Specialist/Specialist Co-op in Mathematics - Major/Major Co-op in Mathematics	Mathematics
- Specialist in Evolutionary Anthropology - Major in Evolutionary	Social Science - General

UTSC Program	MT Teaching Subjects - Required Number of Courses/Credits Completed
Anthropology - Specialist in Socio-Cultural Anthropology - Major in Socio-Cultural Anthropology - Specialist in Sociology - Major in Sociology	
- Major in Theatre and Performance Studies	Dramatic Arts
- Specialist/Specialist Co-op in English - Major/Major Co-op in English	English
- Specialist/Specialist Co-op in French - Major/Major Co-op in French	French (Second Language)
- Specialist in History - Major in History	History
- Specialist in Human Geography - Major in Human Geography	Geography

Application Process:

- Applicants must apply to the Honours Bachelor of Arts (HBA)/ Honours Bachelor of Science (HBSc) program, the MT program and the CDP.
- Qualified students in Year 3 of their HBA/ HBSc degree program apply to the MT program; those accepted will receive a conditional offer to start the MT program upon completion of their HBA/ HBSc program and degree requirements.

Minimum Admission Requirements:

To be considered for **conditional admission to the MT program and the selected CDP,** applicants must meet the following admission requirements:

- Be admitted to the HBA/ HBSc degree and at least one of the above-listed undergraduate programs at UTSC.
- Meet the admission requirements of the School of Graduate Studies and the MT program.
- Be enrolled full-time and in good standing in the HBA/ HBSc program(s):

    - have a B+ average or higher in Year 2;
    - carry a full course load of 5.0 credits each year (i.e., complete 5.0 credits over the three academic sessions - Fall, Winter, Summer); where necessary, exceptions will be made for students in Co-op programs.
- Have completed at least half of the teaching subjects' prerequisite courses - i.e., 3.0 credits in the first teaching subject and at least 1.5 credits in the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science) - by the end of Year 3.
- Provide at least two letters of reference (see: http://www.oise.utoronto.ca/mt/Home.html).
- Provide a Statement of Intent indicating their preferred concentration (Primary/Junior, Junior Intermediate, or Intermediate/Senior) and describe three significant teaching and/or teaching-related experiences 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. On their resumé, applicants must list, in chart form, the extent of their teaching experiences; the chart should include dates, location of the experience, applicants' role, and number of hours working with students.
- Meet other qualifications as specified by the MT program, including: a police record check, relevant teaching experiences, academic and professional references, and satisfying teaching subject prerequisites.

To be given **full, unconditional admission to the MT program**, applicants must meet the following admission requirements:

- Maintain a B+ average or higher in their final year of study in the HBA/ HBSc program, or over upper-level (C- and D-level) courses.
- Achieve at least a B+ average in 1.0 credit in graduate courses taken in Year 4.
- Regardless of the concentration to which they are applying (Primary/Junior, Junior/Intermediate, Intermediate/Senior), complete the prerequisites for both the first and second teaching subjects; students are encouraged to consult often with their HBA/HBSc Program Supervisor, as well as the Combined Degree Programs Coordinator.
- Be conferred with the HBA/ HBSc degree.

Program Requirements and Path to Completion:

- Year 1 to 4: HBA/ HBSc degree requirements:
    - students must complete all of the HBA/ HBSc program and degree requirements;
    - students are expected to carry a full course load of 5.0 credits over the three academic sessions (Fall, Winter, Summer) of each year;
    - in Year 3, qualified students may apply to the MT and the CDP and may be offered conditional admission to the MT;
    - by the end of Year 3 students must complete at least 3.0 credits required for the first teaching subject, and at least 1.5 credits for the second teaching subject (or 3.0 credits if the second teaching subject is French as a Second Language or Science);
    - in Year 4, students who receive a conditional offer of admission to the CDP must complete any two of the graduate elective half courses recommended by OISE for CDP students; these courses (1.0 credit) are counted towards the completion of both the HBA/ HBSc degree and the MT program and degree; CDP students are graded as graduate students in these courses and are required to meet graduate expectations;
    - by the end of Year 4, students must complete all HBA/ HBSc program requirements and degree requirements, including at least 6.0 credits required for the first teaching subject,

and at least 3.0 credits for the second teaching subject (or 6.0 credits if the second teaching subject is French as a Second Language or Science).

- Year 5 and 6: Remaining MT program and degree requirements:
  - students must complete 11.0 credits as identified by OISE.

MAJOR PROGRAM IN THEATRE AND PERFORMANCE (ARTS)

ACM Program Manager: email (acm-pa@utoronto.ca)

Program Requirements
Students must complete 8.0 credits, of which 2.0 credits must be at the C- or D-level.

1. Foundational Courses (1.0 credit):
THRA10H3 Introduction to Theatre
THRA11H3 Introduction to Performance

2. ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs (0.5 credit)

3. Areas of Focus Courses (4.0 credits):
1.0 credit from each of the four Areas of Focus listed below:
- Theatre & Society (1.0 credit)
- Theatre in Communities (1.0 credit)
- Performance (1.0 credit)
- Production (1.0 credit)

*For the specific courses that fall into each of these areas see the Areas of Focus table.

4. THRD60H3 Advanced Seminar in Theatre and Performance (0.5 credit)

5. 2.0 additional credits in Theatre and Performance (THR) courses:
In fulfilling this component of the course requirements, students may substitute 1.0 credit from another discipline with the Program Director's written permission. The following courses are particularly recommended:
ENGB14H3 Twentieth-Century Drama
ENGB32H3 Shakespeare in Context I
ENGB33H3 Shakespeare in Context II
ENGC04H3 Creative Writing: Screenwriting
ENGC07H3 Canadian Drama
ENGC26H3 Drama: Tragedy
ENGC27H3 Drama: Comedy
ENGC89H3 Creative Writing and Performance
GASB15H3 The Arts of South Asia
HLTB50H3 Introduction to Health Humanities
HLTD51H3 Aging and the Arts
MDSB63H3 Sound and Visual Media
MDSC65H3 Games and Play
VPAB15H3 Arts Education and Outreach
VPMB01H3 Introduction to Community Music
VPMB02H3 Music Facilitation and Learning
VPMC02H3 Music, Health & Wellness
VPSB77H3 Performance Art
VPSC71H3 Performing with Cameras

MINOR PROGRAM IN THEATRE AND PERFORMANCE (ARTS)

ACM Program Manager: acm-pa@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits, of which 1.0 credit must be at the C- or D-level:

1. Foundational Courses (1.0 credit)
THRA10H3/(VPDA10H3) Introduction to Theatre
THRA11H3/(VPDA11H3) Introduction to Performance

2. ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs

3. 2.5 additional credits in Theatre and Performance (THR) courses
1.5 credits must come from **one** of the four areas of focus listed below, and 1.0 credit must come from **one** of the other areas of focus:
- Theatre & Society
- Theatre in Communities
- Performance
- Production

For the specific courses that fall into each of these areas, see the Areas of Focus Table.

Theatre And Performance Courses

THRA10H3 - Introduction to Theatre

A general introduction to theatre as a social institution and collaborative performing art. Through a combination of lectures, discussions, class exercises, and excursions to see theatre together throughout Toronto, this course will investigate why and how people commit their lives to make theatre. It will also orient students to the four areas of focus in the Theatre and Performance program's curriculum, providing a background for further theatre studies.

Exclusion: (VPDA10H3)
Enrolment Limits: 80
Breadth Requirements: Arts, Literature & Language

THRA11H3 - Introduction to Performance

An introduction to the actor's craft. This course provides an experiential study of the basic physical, vocal, psychological and analytical tools of the actor/performer, through a series of group and individual exercises.

Prerequisite: THRA10H3/(VPDA10H3)
Exclusion: (VPDA11H3)
Enrolment Limits: 30
Breadth Requirements: Arts, Literature & Language

THRB20H3 - Roots and Traditions

A study of theatre history in social and cultural context from its origins in early human ritual through to the modern period. Through specific case-study, this course will trace how ancient traditions both evolved and persisted to create the dramatic forms more familiar to us today.

Exclusion: (VPDB10H3)
Breadth Requirements: Arts, Literature & Language

THRB21H3 - Intercultural and Global Theatre

A study of theatre and performance as a forum for cultural representation past and present. With a focus on intercultural engagements across borders, particularly in the context of 21st-century globalized modernity, the course reveals the importance of performance to how culture is defined and challenged.

Exclusion: (VPDB11H3)
Breadth Requirements: Arts, Literature & Language
Note: This course may have attached ancillary fees. For additional information go to:http://www.planningandbudget.utoronto.ca/tuition/Ancillary_Fees.htm
See: Cost Recovery Ancillary Fees (Category 5)

THRB22H3 - Theatre in Canada

An overview and exploration of contemporary theatre and performance in Canada focusing on a variety of theatrical genres, styles, and ideologies emerging from diverse communities dedicated to advancing this discipline as a socially conscious, relevant and vibrant art form.

Exclusion: (VPDB13H3)
Breadth Requirements: Arts, Literature & Language

THRB30H3 - Intermediate Performance: Scene Study

By performing characters and staging scenes in scripted plays, students in this course develop and hone the physical, psychological, analytical, and vocal skills of actors.

Prerequisite: THRA11H3/(VPDA11H3) and a successful audition
Breadth Requirements: Arts, Literature & Language

THRB31H3 - Intermediate Performance: Devising Theatre

This course engages students in an experiential study of devised theatre, a contemporary practice wherein a creative team (including actors, designers, writers, dramaturgs, and often a director) collaboratively create an original performance without a preexisting script. We will explore how an ensemble uses improvisation, self-scripted vignettes, movement/dance, and found materials to create an original piece of theatre.

Prerequisite: THRA11H3/(VPDA11H3) and a successful audition
Breadth Requirements: Arts, Literature & Language

THRB32H3 - Intermediate Performance: Improvisation

This course introduces students to improvisation across a range of theatrical contexts. In a sequence of short units, the course will explore improv comedy, improvisation-based devising work, and the improvisation structures commonly used in the context of applied theatre work (including forum theatre and playback theatre). Simultaneously, students will read scholarly literature in the field of play theory, and reflect on their own experiences as improvisers through the vocabulary that has been developed in this interdisciplinary field.

Prerequisite: THRA11H3/(VPDA11H3) and a successful audition
Breadth Requirements: Arts, Literature & Language

THRB40H3 - Experiencing the Live Theatre

Discovering the special nature of various forms of live theatre. Students will attend five professional productions in a variety of theatres in Toronto, and write reviews of their theatre-going experiences. In lectures and seminars students will study contemporary theatrical practices from the perspective of playwrights, performers, etc.

Exclusion: (VPDB04H3)
Breadth Requirements: Arts, Literature & Language

THRB50H3 - Stagecraft

An introduction to the technical elements of theatre production. Students will receive a basic grounding in the fundamentals of stage management, stage lighting, sound operation, set building, scenic painting and general technical practice.

Exclusion: (VPDB03H3), (VPDC03H3)
Breadth Requirements: Arts, Literature & Language

THRB55H3 - Creating a Production: Actors in Action I

This course is an intensive study of theatrical production from the vantage point of the actor. It engages students in the experiential learning process inherent in rehearsing and performing in a major theatrical production.

Prerequisite: Permission of the Theatre and Performance Studies Instructor (includes an audition)
Note: 1. This course will meet at non-traditional times, when the show rehearsals are scheduled – mostly weekday evenings, with some late night and evening rehearsals expected.
2. This course is intended for Year 1 and 2 students at UTSC, or advanced students who are new to performing on stage. More advanced actors in the show are encouraged to register for THRC55H3 or THRD55H3.

THRB56H3 - Creating a Production: Conception, Design, and Execution I

This course is an intensive study of theatrical production from the vantage points of producers, directors (and assistant directors), designers (and assistant designers), stage managers (and assistant stage managers), and dramaturgs. It engages students in the experiential learning process inherent in conceiving of, planning for, rehearsing, and producing a major theatrical production.

Prerequisite: Permission of the Theatre and Performance Studies instructor (includes an audition)
Breadth Requirements: Arts, Literature & Language
Note: 1. This course will meet at non-traditional times when the show rehearsals and production meetings are scheduled.
2. THRB56H3 is intended for Year 1 and 2 students at UTSC, or advanced students who are new to producing, directing, designing, stage management, and dramaturgy. More advanced producers, directors, designers, stage managers, and dramaturgs are encouraged to register for THRC56H3 or THRD56H3.

THRC15H3 - Special Topics in Performance

Selected advanced topics for intensive study of some specific aspects of performance. The topics explored in this course will change from session to session.

Prerequisite: Any 2.0 credits in THR courses
Exclusion: (VPDC20H3)
Enrolment Limits: 16
Note: Further information can be found on the ACM Theatre and Performance website. Depending on the topics covered in a given term, this course may be counted as a 0.5 credit towards an appropriate area of focus. Contact ACM Program Manager for more information.

THRC16H3 - Investigations in Performance

Selected advanced topics for intensive study of some specific aspects of performance. The topics explored in this course will change from session to session.

Prerequisite: Any 2.0 credits in THR courses
Enrolment Limits: 16
Breadth Requirements: Arts, Literature & Language
Note: Further information can be found on the ACM Theatre and Performance website. Depending on the topics covered in the course, THRC16H3 may be counted as a 0.5 credit towards an appropriate area of focus. Contact the ACM Program Manager for more information.

THRC20H3 - Theatre and Social Justice

An examination of theatre and performance in relation to social justice. Building an understanding of power in relation to culture, the course looks at historical and contemporary examples to see the many ways performance may confront issues of social inequality and in justice.

Exclusion: (VPDC13H3)
Breadth Requirements: Arts, Literature & Language
Note: Enrollment priority is given to students enrolled in either Major or Minor program in Theatre and Performance

THRC30H3 - Theatrical Design

This course introduces students to the principles of theatrical design, including set design, lighting design, costume design, and sound design. Students learn how to envision the aesthetic world of a play, in collaboration with other artists.

Prerequisite: THRA10H3/(VPDA10H3)
Breadth Requirements: Arts, Literature & Language

THRC40H3 - Performance and Activism

This course introduces students to the principles and creative processes associated with Theatre of the Oppressed – a movement blending activism and artistry to advance progressive causes. Students train as Theatre of the Oppressed performers and facilitators, and through a combination of lectures, readings, discussions, and field trips, they process the history, ideology, and debates associated with this movement.

Prerequisite: THRA10H3/(VPDA10H3)

THRC41H3 - Theatre in Education

This course introduces students to the principles and creative processes of integrating theatre into K-12 classrooms and other learning environments. Lectures, readings, discussions, and field trips complement active experimentation as students learn the pedagogical value of this active, creative, imaginative, kinesthetic approach to education.

Prerequisite: THRA10H3/(VPDA10H3)
Breadth Requirements: Arts, Literature & Language

THRC50H3 - Advanced Workshop: Performance

Students stretch themselves as theatrical performers and producers as they engage in structured, practical experimentation related to the departmental production.

Prerequisite: 0.5 credit from the following [THRB30H3 or THRB31H3 or THRB32H3], and permission from the Theatre and Performance instructor.
Exclusion: (VPDC01H3)
Breadth Requirements: Arts, Literature & Language

THRC55H3 - Creating a Production: Actors in Action II

This course is an intensive study of theatrical production from the vantage point of the actor. It engages students in the experiential learning process inherent in rehearsing and performing in a major theatrical production.

Prerequisite: THRB55H3 and permission of the Theatre and Performance Studies Teaching instructor (includes an audition)
Breadth Requirements: Arts, Literature & Language
Note: 1. This course will meet at non-traditional times, when the show rehearsals are scheduled – mostly weekday evenings, with some late night and evening rehearsals expected.
2 THRC55H3 is intended for Year 3 students at UTSC who have already had some experience on stage. Beginning students in the show are encouraged to register for THRB55H3; more advanced actors in the show are encouraged to register for THRD55H3.

THRC56H3 - Creating a Production: Conception, Design, and Execution II

This course is an intensive study of theatrical production from the vantage points of producers, directors (and assistant directors), designers (and assistant designers), stage managers (and assistant stage managers), and dramaturgs. It engages students in the experiential learning process inherent in conceiving of, planning for, rehearsing, and producing a major theatrical production.

Prerequisite: THRB56H3 and permission of the Theatre and Performance Studies Teaching instructor (includes an audition)
Breadth Requirements: Arts, Literature & Language
Note: 1. This course will meet at non-traditional times when the show rehearsals and production meetings are scheduled.
2. THRC56H3 is intended for Year 3 students at UTSC with some theatrical experience. Beginning students are encouraged to register for THRB56H3, while more advanced producers, directors, designers, stage managers, and dramaturgs are encouraged to register for THRD56H3.

THRD30H3 - Directing for the Theatre

This course introduces students to the work of the director. A combination of lecture, discussion, reading, and practical work will challenge students to consider how to lead the creative teams that create performance. Students taking this course will need to devote a considerable amount of time outside of class to rehearsing class projects and will need to recruit collaborators for these projects.

Prerequisite: THRA10H3/(VPDA10H3) and THRA11H3/(VPDA11H3), and an additional 1.0 credit in Theatre and Performance, and permission from the instructor
Exclusion: (VPDC02H3)
Enrolment Limits: 8
Breadth Requirements: Arts, Literature & Language

THRD31H3 - Advanced Performance

Building on concepts introduced in THRB30H3, THRB31H3, and THRB32H3, this course offers advanced acting training.

Prerequisite: 1.0 credit from the following: [THRB30H3, THRB31H3, THRB32H3]
Breadth Requirements: Arts, Literature & Language

THRD55H3 - Creating a Production: Actors in Action III

This course is an intensive study of theatrical production from the vantage point of the actor. It engages students in the experiential learning process inherent in rehearsing and performing in a major theatrical production.

Prerequisite: THRC55H3 and permission of the Theatre and Performance Studies instructor (includes an audition)
Breadth Requirements: Arts, Literature & Language
Note: 1. This course will meet at non-traditional times, when the show rehearsals are scheduled – mostly weekday evenings, with some late night and evening rehearsals expected.
2. THRD55H3 is intended for Year 4 students at UTSC, with extensive experience performing on stage. Less advanced actors in the show are encouraged to register for THRB55H3 or THRC55H3.

THRD56H3 - Creating a Production: Conception, Design, and Execution III

This course is an intensive study of theatrical production from the vantage points of producers, directors (and assistant directors), designers (and assistant designers), stage managers (and assistant stage managers), and dramaturgs. It engages students in the experiential learning process inherent in conceiving of, planning for, rehearsing, and producing a major theatrical production.

Prerequisite: THRC56H3 and permission of the Theatre and Performance Studies instructor (includes an audition)
Breadth Requirements: Arts, Literature & Language
Note: 1. This course will meet at non-traditional times, when the show rehearsals and production meetings are scheduled.
2. THRD56H3 is intended for Year 4 students at UTSC with extensive theatrical experience. Less experienced producers, directors, designers, stage managers, and dramaturgs are encouraged to register for THRB56H3 or THRC56H3.

THRD60H3 - Advanced Seminar in Theatre and Performance

A study of key ideas in theatre and performance theory with a focus on pertinent 20th/21st century critical paradigms such as postcolonialism, feminism, interculturalism, cognitive science, and others. Students will investigate theory in relation to selected dramatic texts, contemporary performances, and practical experiments.

Prerequisite: Any 3.0 credits in THR courses
Exclusion: (VPDD50H3)
Enrolment Limits: 15
Breadth Requirements: Arts, Literature & Language

THRD90H3 - Supervised Studies in Drama, Theatre and Performance

Advanced scholarly projects open to upper-level Theatre and Performance students. The emphasis in these courses will be on advanced individual projects exploring specific areas of theatre history and/or dramatic literature.

Prerequisite: 1.0 credit at the C-level in THR courses, and permission of the Program Director.
Exclusion: (VPDD23H3)

THRD91H3 - Independent Projects in Theatre and Performance

Advanced practical projects open to upper-level Theatre and Performance students. These courses provide an opportunity for individual exploration in areas involving the practice of theatre: directing, producing, design, playwriting, dramaturgy, etc.

Prerequisite: 1.0 credit at the C-level in THR courses, and permission of the Program Director.
Exclusion: (VPDD28H3)

Women's and Gender Studies

Faculty List

- J. English, M.A., Ph.D. (Toronto), Associate Professor, Teaching Stream
- C. Guberman, M.E.S. (York), Associate Professor, Teaching Stream
- A. Grewal, M.A. (Trent), Ph.D. (Chicago), Assistant Professor
- A. Hachimi, M.A., Ph.D. (Hawaii), Associate Professor
- N.C. Johnston, M.A., Ph.D. (York, Canada), Associate Professor, Teaching Stream
- J. Sharma, M.A. (Delhi), M/Phil. (Delhi), Ph.D. (Cantab), Associate Professor
- S. Ye, M.A. (Cincinnati), Ph.D. (Minnesota), Assistant Professor

Undergraduate Advisor (416-287-7184) Email: wst-undergrad-advisor@utsc.utoronto.ca

Women's and Gender Studies at the University of Toronto Scarborough is an interdisciplinary program that explores the intersections of gender, race, sexuality, class, age, disability, nationality and other relations of power that shape multiple social and cultural differences and inequalities.

The program offers a rigorous and supportive environment for students to pursue an undergraduate Major/Major (Co-op) Program in Women's and Gender Studies and Minor Program in Women's and Gender Studies. The programs integrate theory and practice by introducing students to scholarship from a wide range of intellectual perspectives, and challenging them to work for change and equality in their communities and in their daily lives.

Through our innovative learning environments, transformative feminist teaching and curriculum, students will learn to scrutinize structures of power, inequality and injustice. Students will ultimately develop the knowledge, language and tools they need to challenge conventional assumptions about the world around them.

Topics include women's roles in society, history, family, religion and politics; women and literature, language, and philosophy; women and science; gender, media and the arts; gender and work; development; race, gender and empire; sexuality and transnationality; violence, and LGBT history and activism. Our programs' interdisciplinary focus can be carried into many academic and professional areas in Humanities, Social Sciences as well in science and technology. Students acquire skills in critical thinking, creative problem-solving, analytical research, effective writing and communication and community engagement. These skills prepare students for careers in education, research, journalism, arts, social work, activism, government, politics, law, business, or administration, policy analysis and equity advocacy.

Guidelines for first-year course selection
Students who intend to complete a Women's and Gender Studies program should first take WSTA01H3 and WSTA03H3 in their first year before proceeding to the upper-level courses.

For updates and detailed information regarding Women's and Gender Studies, please visit the Department of Historical and Cultural Studies website.

Experiential Learning and Outreach
For a community-based experiential learning opportunity in your academic field of interest, consider the course CTLB03H3, which can be found in the Teaching and Learning section of the *Calendar*.

Women's And Gender Studies Programs

MAJOR PROGRAM IN WOMEN'S AND GENDER STUDIES (ARTS)

Undergraduate Advisor: 416-287-7184 Email: wst-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 7.0 credits as follows:

1. 1.0 credit from the following
WSTA01H3 Introduction to Women's and Gender Studies
WSTA03H3 Introduction to Feminist Theories and Thought

2. WSTB05H3 Understanding Power and Knowledge in Research

3. WSTB11H3 Intersections of Inequality

4. WSTC02H3 Feminist Qualitative Research in Action

5. 2.5 additional credits in WST courses from the list below, of which at least 0.5 credit must be at the C-level, and a further 1.0 credit must be at the D-level (including 0.5 credit from WSTD03H3 or WSTD04H3 or WSTD09H3 or WSTD10H3)
WSTB06H3 Women in Diaspora
WSTB09H3 Gender, Race, and Colonialism
WSTB10H3 Women, Power and Protest
WSTB12H3 Women, Violence and Resistance
WSTB13H3 Gender, Media and Culture
WSTB20H3/(WSTC20H3) Women, the Environment, and Change
WSTB25H3 LGBTQ History, Theory and Activism
WSTC10H3/AFSC53H3 Gender and Critical Development
WSTC12H3 Writing the Self: Global Women's Autobiographies
WSTC13H3 Women, Gender and Islam
WSTC14H3 Women, Community and Policy Change
WSTC16H3 Criminalized Women: Gender, Justice and the Law
WSTC22H3 Gender and Film
WSTC23H3 Community Engagement Practicum
WSTC24H3 Gender in the Kitchen
WSTC25H3 Transnational Sexuality
WSTC26H3 Critical Race and Black Feminist Theories
WSTC28H3/LINC28H3 Language and Gender
WSTC30H3 Special Topics in Women's and Gender Studies
WSTC31H3 Special Topics in Women's and Gender Studies
WSTC40H3 Gender and Disability
WSTD01H3 Independent Project in Women's and Gender Studies
WSTD03H3 Senior Seminar in Sex, Gender and the Body

WSTD04H3 Senior Seminar in Gender, Equity and Human Rights
WSTD07H3 Themes in the History of Childhood and Culture
WSTD09H3 Race, Gender, and Islamophobia
WSTD10H3 Advanced Methods: Story Telling and Social Change
WSTD11H3 Special Topics in Women's and Gender Studies
WSTD16H3/HISD16H3 Socialist Feminism in Global Context
WSTD30H3/GASD30H3 Gender and Techno-Orientalism
WSTD46H3/HISD46H3 Selected Topics in Canadian Women's History

6. 2.0 credits from the course list below:
AFSC97H3/HISC97H3 Women and Power in Africa
ANTC14H3 Feminism and Anthropology
ANTC15H3 Genders and Sexualities
ANTD01H3 The Body in Culture and Society
ENGB50H3 Women and Literature: Forging a Tradition
[(ENGB51H3) or ENGC54H3 Gender and Genre]
ENGB74H3 The Body in Literature and Film
(ENGC77H3)/(VPAC48H3) The Body in Contemporary Culture: Theories and Representations
ENGC34H3 Early Modern Women and Literature: 1500-1700
ENGC51H3 Contemporary Arab Women Writers
ENGD80H3 Women and Canadian Writing
GASB20H3 Gender and Social Institutions in Asia
GASC20H3 Gendering Global Asia
GASD20H3 Advanced Seminar: Social Change and Gender Relations in Chinese Societies
GGRD09H3 Feminist Geographies
GGRD10H3 Health and Sexuality
HISC45H3 Immigrant and Race Relations in Canadian History
HISD30H3 Gendering America
HISD56H3 'Coolies' and Others: Asian Labouring Diasporas in the British Empire
HLTC02H3 Women and Health: Past and Present
HLTC46H3 Gender, Health and Society
IDSD06H3 Feminist and Postcolonial Perspectives in Development Studies
MGHC23H3/(MGTC23H3) Diversity in the Workplace
PHLB13H3 Philosophy and Feminism
POLC94H3 Globalization, Gender and Development
PSYD18H3 Psychology of Gender
SOCB22H3 Sociology of Gender
SOCB49H3 Sociology of Family
SOCC09H3 Sociology of Gender and Work
SOCC24H3 Special Topics in Gender and Family
SOCC29H3 Family and Gender in the Middle East
SOCC38H3 Gender and Education
(VPHB57H3) Women in the Arts: Hot Mamas, Amazons, and Madonnas

MAJOR (CO-OPERATIVE) PROGRAM IN WOMEN'S AND GENDER STUDIES (ARTS)

Co-op Contact: askcoop@utoronto.ca

The Major (Co-op) Program in Women's and Gender Studies is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit

sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Women's and Gender Studies upon graduation.
In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term Preparation courses and a minimum of two Co-op work terms.

Enrolment Requirements
The minimum qualifications for entry are 4.0 credits, including one of WSTA01H3 or WSTA03H3, plus a cumulative GPA of at least 2.5.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
In addition to requesting the program on ACORN, prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must also submit a Co-op Supplementary Application Form, which is available from the Arts & Science Co-op Office website. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit both the Supplementary Application Form and the program request on ACORN will result in that student's application not being considered.

Program Requirements
Students are required to complete the program requirements as described in the Major Program in Women's and Gender Studies.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Women's and Gender Studies and have completed at least 9.0 credits, including WSTA01H3, WSTA03H3 and WSTB05H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in the Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer

semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see Section 6B.5 or the Arts and Science Co-op section in the UTSC *Calendar*.

MINOR PROGRAM IN WOMEN'S AND GENDER STUDIES (ARTS)

Undergraduate Advisor: 416-287-7184 Email: wst-undergrad-advisor@utsc.utoronto.ca

Program Requirements
Students must complete 4.0 credits as follows:

1. 1.0 credit from the following
WSTA01H3 Introduction to Women's and Gender Studies
WSTA03H3 Introduction to Feminist Theories and Thought

2. WSTB05H3 Understanding Power and Knowledge in Research

3. WSTB11H3 Intersections of Inequality

4. 2.0 additional credits as follows:
0.5 credit at the C-level in WST courses taken from the list in requirement 5 of the Major program in Women’s and Gender Studies
and
0.5 credit at the D-level in WST courses taken from the list in requirement 5 of the Major program in Women’s and Gender Studies
and
1.0 credit in courses taken from the list in requirement 6 of the Major program in Women’s and Gender Studies.

Women's And Gender Studies Courses

WSTA01H3 - Introduction to Women's and Gender Studies

This course explores the intersection of social relations of power including gender, race, class, sexuality and disability, and provides an interdisciplinary and integrated approach to the study of women's lives in Canadian and global contexts. There is a strong focus on the development of critical reading and analytic skills.

Exclusion: (NEW160Y), WGS160Y, WGS101H
Breadth Requirements: Social & Behavioural Sciences

WSTA03H3 - Introduction to Feminist Theories and Thought

An introduction to feminist theories and thoughts with a focus on diverse, interdisciplinary and cross-cultural perspectives. An overview of the major themes, concepts and terminologies in feminist thinking and an exploration of their meanings.

Exclusion: (NEW160Y), WGS160Y, WGS200Y, WGS260H
Breadth Requirements: History, Philosophy & Cultural Studies

WSTB05H3 - Understanding Power and Knowledge in Research

Using a feminist and intersectional lens, this course will critically analyze dominant and alternative paradigms of knowledge production including research and social media. Concepts of objectivity, bias, and ethics will be explored. There is an experiential learning component.

Prerequisite: WSTA01H3 or WSTA03H3 or (WSTA02H3)
Exclusion: WGS202H, WGS360H
Breadth Requirements: Social & Behavioural Sciences

WSTB06H3 - Women in Diaspora

Because of gendered responsibilities for creating homes, migrant women create and experience diasporic relations (to family and friends elsewhere) in distinctive ways. This course uses methods and materials from literature, history and the social sciences to understand the meaning of home for migrant women from many different cultural origins.

Prerequisite: 1.0 credit at the A-level in AFS, CLA, GAS, HIS or WST courses
Breadth Requirements: History, Philosophy & Cultural Studies

WSTB09H3 - Gender, Race, and Colonialism

This course is an introduction to how the history of colonialism and the power relations of the colonial world have shaped the historical and social constructions of race and gender. The course considers political, legal, economic, and cultural realms through which colonialism produced new gendered and racial social relationships across different societies and communities. The ways in which colonial power was challenged and resisted will also be explored.

Prerequisite: 1.0 credit at the A-level in any Humanities or Social Science courses
Breadth Requirements: History, Philosophy & Cultural Studies

WSTB10H3 - Women, Power and Protest

An examination of local and global movements for change, past and current, which address issues concerning women.
This course will survey initiatives from the individual and community to the national and international levels to bring about change for women in a variety of spheres.

Prerequisite: 1.0 credit at the A-level in AFS, GAS, HIS, WST, or other Humanities and Social Sciences courses
Exclusion: (WSTA02H3)
Recommended Preparation: WSTA01H3 or WSTA03H3
Breadth Requirements: History, Philosophy & Cultural Studies

WSTB11H3 - Intersections of Inequality

An overview of the complex interactions among race, class, gender and sexuality in traditional and modern societies. Drawing on both historical and contemporary patterns in diverse societies, the course offers feminist perspectives on the ways in which race, class, gender, and sexual orientation have shaped the lives of women and men.

Prerequisite: WSTA01H3 or [WSTA03H3 or (WSTA02H3)]
Breadth Requirements: Social & Behavioural Sciences

WSTB12H3 - Women, Violence and Resistance

An analysis of violence against women and recent forms of resistance to violence. A historical, cultural, and structural approach to studying gender-based violence. Family, state, economic and ideological aspects will be addressed. Initiatives toward making communities safer, including strategies for prevention and education will be examined.

Prerequisite: WSTA01H3 and [WSTA03H3 or (WSTA02H3) or WSTB05H3 or WSTB11H3 or one half credit from the list provided in requirement #6 in the Major in Women's and Gender Studies]
Exclusion: (NEW373H), WGS373H
Breadth Requirements: Social & Behavioural Sciences

WSTB13H3 - Gender, Media and Culture

An interdisciplinary approach to feminist critiques of the media. Gendered representation will be examined in media such as film, television, video, newspapers, magazines and on-line technologies. Students will also develop a perspective on women's participation in, and contributions toward, the various media industries.

Prerequisite: WSTA01H3 or [WSTA03H3 or (WSTA02H3)]
Exclusion: (NEW271Y), WGS271Y, WGS205H
Breadth Requirements: History, Philosophy & Cultural Studies

WSTB20H3 - Women, the Environment, and Change

Issues related to women, gender and the environment will be addressed through current, historical and transnational perspectives. Topics include: the impact of climate change on gendered and racialized bodies; planning for safer places; global sustainable development; ecofeminism and activism for change.

Prerequisite: Any 4.0 credits
Exclusion: (WSTC20H3)
Breadth Requirements: Social & Behavioural Sciences

WSTB25H3 - LGBTQ History, Theory and Activism

This course introduces students to current discussions, debates and theories in LGBT and queer studies and activism. It will critically examine terms such as gay, lesbian, bisexual, transgender, queer, heterosexual, and ally, and explore how class, race, culture, ability, and history of colonization impact the experience of LGBTQ-identified people.

Prerequisite: 4.0 credits, including 1.0 credit in Humanities or Social Sciences
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in a Women's and Gender Studies program.

WSTC02H3 - Feminist Qualitative Research in Action

Students will design and conduct a qualitative research project in the community on an issue related to women and/or gender. The course will also include an overview of the various phases of carrying out research: planning the research project, choosing appropriate methods for data collection, analyzing the data and reporting the results. Students should expect to spend approximately 10 hours conducting their research in the community over the course of the semester.

Prerequisite: WSTA01H3 and WSTA03H3 and WSTB05H3 and WSTB11H3 and 1.0 credit taken from the courses listed in requirement 6 of the Major in Women's and Gender Studies
Exclusion: (WSTD02H3)
Enrolment Limits: 15
Breadth Requirements: Social & Behavioural Sciences

WSTC10H3 - Gender and Critical Development

How development affects, and is affected by, women around the world. Topics may include labour and economic issues, food production, the effects of technological change, women organizing for change, and feminist critiques of traditional development models.

Same as AFSC53H3

Prerequisite: [AFSA03H3/IDSA02H3 or IDSB01H3 or IDSB02H3] or [[WSTA01H3 or WSTA03H3] and [an additional 0.5 credit in WST courses]]
Exclusion: AFSC53H3
Breadth Requirements: Social & Behavioural Sciences

WSTC12H3 - Writing the Self: Global Women's Autobiographies

An exploration of the ways in which women from different countries construct the gendered subject in their representations of childhood, sexuality, work, maternity and illness. Texts will be read in English and an emphasis will be placed on the cultural contexts of gender, ethnicity, sexuality and class.

Prerequisite: [WSTA01H3 and [WSTA03H3 or (WSTA02H3)] and [1.0 additional credit in WST courses]
Recommended Preparation: WSTB13H3
Enrolment Limits: 50
Breadth Requirements: Arts, Literature & Language

WSTC13H3 - Women, Gender and Islam

Explores historical and contemporary debates regarding the construction of gender in Islam. Topics include the historical representations of Muslim woman, veiling, sexuality, Islamic law and Islamic feminism. This course situates Muslim women as multidimensional actors as opposed to the static, Orientalist images that have gained currency in the post 9/11 era.

Prerequisite: 1.5 credits in WST courses including 0.5 credit at the B- or C-level
Exclusion: WSTC30H3 (if taken in the 2008 Winter Session), WGS301H
Breadth Requirements: History, Philosophy & Cultural Studies

WSTC14H3 - Women, Community and Policy Change

An examination of the impact of social policy on women's lives, from a historical perspective. The course will survey discriminatory practices in social policy as they affect women and immigration, health care, welfare, and the workplace. Topics may include maternity leave, sexual harassment, family benefits, divorce, and human rights policies.

Prerequisite: WSTA01H3 and [WSTA03H3 or (WSTA02H3)]
Breadth Requirements: History, Philosophy & Cultural Studies

WSTC16H3 - Criminalized Women: Gender, Justice and the Law

Examining popular media and history students will investigate themes of criminality, gender and violence in relation to the social construction of justice. Some criminal cases involving female defendants will also be analyzed to examine historical issues and social contexts. Debates in feminist theory, criminology and the law will be discussed.

Prerequisite: [WSTA01H3 and [WSTA03H3 or (WSTA02H3)]] or [1.0 credit in SOC courses]
Recommended Preparation: WSTB13H3
Enrolment Limits: 40
Breadth Requirements: History, Philosophy & Cultural Studies

WSTC22H3 - Gender and Film

This course examines the representations of gender in narrative, documentary and experimental films by a selection of global directors from a social, critical and historical perspective. We will analyse and engage with the filmic representations of race, class and sexual orientation, and explore how traditional and non-traditional cinema can challenge or perpetuate normative notions of gender.

Prerequisite: Any 5.0 credits, including: [WSTA01H3 and [WSTA02H3 or WSTA03H3]] or [0.5 credit in ENG, FRE or GAS cinema/film focused courses]
Recommended Preparation: WSTB13H3
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

WSTC23H3 - Community Engagement Practicum

An opportunity for students in the Major and Minor programs in Women's and Gender Studies to apply theoretical knowledge related to women and gender to practical community experience through experiential learning within a community, educational or social setting.

Prerequisite: WSTA01H3 and [WSTA03H3 or (WSTA02H3)] and WSTB05H3 and WSTB11H3 and WSTC02H3
Exclusion: HCSC01H3
Enrolment Limits: 8
Breadth Requirements: Social & Behavioural Sciences

WSTC24H3 - Gender in the Kitchen

Across cultures, women are the main preparers and servers of food in domestic settings; in commercial food production and in restaurants, and especially in elite dining establishments, males dominate. Using agricultural histories, recipes, cookbooks, memoirs, and restaurant reviews and through the exploration of students' own domestic culinary knowledge, students will analyze the origins, practices, and consequences of such deeply gendered patterns of food labour and consumption.

Same as FSTC24H3

Prerequisite: 8.0 credits, including [0.5 credit at the A- or B-level in WST courses] and [0.5 credit at the A or B-level in FST courses]
Exclusion: FSTC24H3
Breadth Requirements: History, Philosophy & Cultural Studies

WSTC25H3 - Transnational Sexuality

This course examines how sexuality and gender are shaped and redefined by cultural, economic, and political globalization. We will examine concepts of identity, sexual practices and queerness, as well as sexuality/gender inequality in relation to formulations of the local-global, nations, the transnational, family, homeland, diaspora, community, borders, margins, and urban-rural.

Prerequisite: 1.0 credit at the A-level and 1.0 credit at the B-level in WST courses, or other Humanities and Social Sciences courses
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in the Major and Minor programs in Women's and Gender Studies. Additional students will be admitted as space permits.

WSTC26H3 - Critical Race and Black Feminist Theories

This course focuses on the theoretical approaches of critical race theory and black feminist thought this course examines how race and racism are represented and enacted across dominant cultural modes of expression and the ideas, actions, and resistances produced by Black women. The course will analyze intersections of gender subordination, homophobia, systems and institutions of colonialism, slavery and capitalism historically and in the contemporary period.

Prerequisite: WSTA03H3 and WSTB11H3 and an additional 1.0 credit in WST courses
Exclusion: WGS340H5
Breadth Requirements: History, Philosophy & Cultural Studies

WSTC28H3 - Language and Gender

An introduction to the research on differences between women and men in how they use language and how they behave in conversational interaction, together with an examination of the role of language in reflecting and perpetuating cultural attitudes towards gender.
Same as LINC28H3

Prerequisite: WSTA01H3 or WSTA03H3, and one full credit at the B-level in ANT, LIN, SOC or WST
Exclusion: JAL355H, LINC28H3
Breadth Requirements: Social & Behavioural Sciences

WSTC30H3 - Special Topics in Women's and Gender Studies

An examination of a current topic relevant to women and gender studies. Students will have the opportunity to explore recent scholarship in a specific content area which will vary from year to year. Participation in a related project/practicum in the community may be incorporated into the course.

Prerequisite: WSTA01H3 and [WSTA03H3 or (WSTA02H3)]

WSTC31H3 - Special Topics in Women's and Gender Studies

An examination of a current topic relevant to women's and gender studies.
Students will have the opportunity to explore recent scholarship in a specific content area which will vary from year to year. Participation in a related project/practicum in the community may be incorporated into the course.

Prerequisite: WSTA01H3 and [WSTA03H3 or (WSTA02H3)]

WSTC40H3 - Gender and Disability

This course introduces debates and approaches to the intersection of disability with social determinants of gender, sexuality, class, race and ethnicity. Students will examine international human rights for persons with disabilities, images and representations of gender and the body, research questions for political activism, and social injustice.

Prerequisite: 1.5 credits, including [WSTA01H3 or WSTA03H3] and [0.5 credit at the B- or C-level in WST courses]
Exclusion: WGS366H
Enrolment Limits: 50
Breadth Requirements: History, Philosophy & Cultural Studies

WSTC66H3 - Histories of Gender and Sexuality in Muslim Societies: Between Law, Ethics and Culture

This course tracks the evolving histories of gender and sexuality in diverse Muslim societies. We will examine how gendered norms and sexual mores were negotiated through law, ethics, and custom. We will compare and contrast these themes in diverse societies, from the Prophet Muhammad’s community in 7th century Arabia to North American and West African Muslim communities in the 21st century.

Same as HISC66H3

Prerequisite: [Any 4.0 credits, including 0.5 credit at the A- or B-level in HIS courses] or [1.5 credits in WST courses, including 0.5 credit at the B- or C-level]
Exclusion: HISC66H3, RLG312H1
Breadth Requirements: History, Philosophy & Cultural Studies

WSTD01H3 - Independent Project in Women's and Gender Studies

An opportunity to undertake an in-depth research topic under the supervision of a Women's and Gender Studies faculty member. Students will work with their supervisor to finalize the course content and methods of approach; assessment will be based on an advanced essay/project on the approved topic, which will be evaluated by the supervising faculty member and program coordinator. The material studied will differ significantly in content and/or concentration from topics offered in regular courses.

Prerequisite: At least 15.0 credits including: WSTA01H3 and WSTB05H3 and [WSTA03H3 or (WSTA02H3)] and [1.5 credits taken from the courses in requirement 5 and 6 in the Major program in Women's and Gender Studies]. Only students in the Major program in Women's and Gender Studies that have a CGPA of at least 3.3 can enrol in this course. When applying to a faculty supervisor, students need to present a brief written statement of the topic they wish to explore in the term prior to the start of the course.

WSTD03H3 - Senior Seminar in Sex, Gender and the Body

An advanced and in-depth examination of selected topics related to health, sexualities, the gendered body, and the representations and constructions of women and gender. The course will be in a seminar format with student participation expected. It is writing intensive and involves a major research project.

Prerequisite: WSTA01H3 and [WSTA03H3 or (WSTA02H3)] and WSTB11H3 and [1.0 credit at the C-level from requirement 5 or 6 of the Major program in Women's and Gender Studies]
Enrolment Limits: 15

WSTD04H3 - Senior Seminar in Gender, Equity and Human Rights

An advanced and in-depth examination of selected topics related to women and gender, equity, diversity and human rights in the context of local and global communities, and diaspora. The course will be in a seminar format with student participation expected, and it also involves a major research project.

Prerequisite: 8.0 credits including 2.0 credits in WST courses
Enrolment Limits: 15

WSTD07H3 - Themes in the History of Childhood and Culture

A comparative analysis of transnational histories and cultural and gendered ideologies of children and childhood through case studies of foundlings in Italy, factory children in England, orphans and adoption in the American West, labouring children in Canada and Australia, mixed-race children in British India.
Same as HISD07H3

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in HIS or WST courses] and [0.5 credit at the C-level in HIS or WST courses]
Exclusion: HISD07H3
Recommended Preparation: HISB02H3 or HISB03H3 or WSTB06H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

WSTD09H3 - Race, Gender, and Islamophobia

An in-depth examination of Islamophobic discourses, practices and institutionalized discriminatory policies, and their impact on Muslims and those perceived to be Muslim. Themes include the relationship between Islamophobia, gender orientalism and empire; Islamophobic violence; Islamophobia in the media; the Islamophobia industry; the mobilization of feminism and human rights in the mainstreaming of Islamophobia. Equal attention will be paid to resisting Islamophobia through art, advocacy, and education.

Prerequisite: WSTB11H3 and 1.0 credit at the C-level from courses listed in requirements 5 and 6 of the Major program in Women's and Gender Studies
Recommended Preparation: ANTC80H3, RLG204H1 or NMC475H1
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students in the Major program in Women's and Gender Studies

WSTD10H3 - Advanced Methods: Story Telling and Social Change

With a focus on collecting and retelling complex stories of life in Scarborough, this applied research course introduces students to the theory, methods and practice of feminist oral history. This course involves conducting research in the community.

Prerequisite: 3.5 credits in WST courses, including: [WSTB05H3 and 0.5 credit at the C-level]
Exclusion: HISC28H3, HISD25H3, WSTC02H3 (Fall 2013), HISD44H3 (Fall 2013), CITC10H3 (Fall 2013)
Breadth Requirements: History, Philosophy & Cultural Studies

WSTD11H3 - Special Topics in Women's and Gender Studies

An advanced and in-depth seminar dedicated to a topic relevant to Women's and Gender Studies. Students will have the opportunity to explore recent scholarship in a specific content area, which will vary from year to year. Participation in a related project/practicum in the community may be incorporated into the course.

Prerequisite: WSTB11H3 and 1.0 credit at the C-level from the courses in requirement 5 or 6 of the Major program in Women's and Gender Studies
Breadth Requirements: History, Philosophy & Cultural Studies

WSTD16H3 - Socialist Feminism in Global Context

A comparative exploration of socialist feminism, encompassing its diverse histories in different locations, particularly China, Russia, Germany and Canada. Primary documents, including literary texts, magazines, political pamphlets and group manifestos that constitute socialist feminist ideas, practices and imaginaries in different times and places will be central. We will also seek to understand socialist feminism and its legacies in relation to other contemporary stands of feminism.
Same as HISD16H3
Transnational Area

Prerequisite: 1.0 credit at the B-level and 1.0 credit at the C-level in HIS, WST, or other Humanities and Social Sciences courses
Exclusion: HISD16H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies

WSTD30H3 - Gender and Techno-Orientalism

This course examines how popular culture projects its fantasies and fears about the future onto Asia through sexualized and racialized technology. Through the lens of techno-Orientalism this course explores questions of colonialism, imperialism and globalization in relation to cyborgs, digital industry, high-tech labor, and internet/media economics. Topics include the hyper-sexuality of Asian women, racialized and sexualized trauma and disability. This course requires student engagement and participation. Students are required to watch films in class and creative assignments such as filmmaking and digital projects are encouraged.
Same as GASD30H3

Prerequisite: 1.0 credit at the B-level and 1.0 credit at the C-level in WST courses or other Humanities and Social Sciences courses
Exclusion: GASD30H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Priority will be given to students enrolled in the Major/Major Co-op and Minor programs Women's and Gender Studies, and the Specialist, Major and Minor programs in Global Asia Studies. Additional students will be admitted as space permits.

WSTD46H3 - Selected Topics in Canadian Women's History

Weekly discussions of assigned readings. The course covers a broad chronological sweep but also highlights certain themes, including race and gender relations, working women and family economies, sexuality, and women and the courts. We will also explore topics in gender history, including masculinity studies and gay history.
Same as HISD46H3

Prerequisite: Any 8.0 credits, including: [0.5 credit at the A- or B-level in AFS, CLA, FST, GAS, HIS or WST courses] and [0.5 credit at the C-level in AFS, CLA, FST, GAS, HIS or WST courses]
Exclusion: HISD46H3
Recommended Preparation: HISB02H3 or HISB03H3 or HISB14H3 or WSTB06H3 or HISB50H3 or GASB57H3/HISB57H3 or HISC09H3 or HISC29H3
Enrolment Limits: 15
Breadth Requirements: History, Philosophy & Cultural Studies
Note: Topics vary from year to year. Check the website www.utsc.utoronto.ca/~hcs/programs/history.html for current offerings.